

1 Title: **ReSurveyGermany: Vegetation-plot time-series over the past hundred years in Germany**

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- 99 Design Type(s): time series, vegetation-plot data
- 100 Measurement Type(s): biodiversity, cover of vascular plant species in vegetation-plot records
- 101 Technology Type(s): (semi-)permanent plots, resurveys
- 102 Factor Type(s): year of vegetation record, geographic location, EUNIS habitat type
- 103 Sample Characteristic(s): cover records for 1,794 vascular plant species in 7,738 (semi-)permanent  
104 vegetation plots from Germany, resurveyed from 2 to 54 times, in total resulting in 23,641 vegetation  
105 records and 458,311 species cover records, comprising the years from 1927 to 2020 and 97 EUNIS  
106 habitat types

107

## 108 **Abstract**

109 Vegetation-plot resurvey data are a main source of information on terrestrial biodiversity change,  
110 with records reaching back more than one century. Although more and more data from re-sampled  
111 plots have been published, there is not yet a comprehensive open-access dataset available for

112 analysis. Here, we compiled and harmonised vegetation-plot resurvey data from Germany covering  
113 almost 100 years. We show the distribution of the plot data in space, time and across habitat types  
114 of the European Nature Information System (EUNIS). In addition, we include metadata on geographic  
115 location, plot size and vegetation structure. The data allow calculating temporal biodiversity change  
116 at the community scale and reach back further into the past than most comparable data yet  
117 available. They also enable tracking changes in the incidence and distribution of individual species  
118 across Germany. In summary, the data come at a level of detail that holds promise for broadening  
119 our understanding of the mechanisms and drivers behind plant diversity change over the last  
120 century.

121

## 122 **Background & Summary**

123 The current biodiversity crisis threatens an estimated one million species with extinction <sup>1</sup>. The  
124 nature and rate of observed changes depend on the spatial scale at which they are observed <sup>2</sup>. At the  
125 finest scale, i.e. the local scale of plant communities, vegetation-plot records have been found to  
126 become sometimes richer, sometimes poorer in species <sup>3</sup>, while a considerable temporal species  
127 turnover is apparent in the majority of cases <sup>4</sup>.

128 Vegetation-plot time series have mainly been collected for particular habitats, such as forests <sup>5–17</sup>,  
129 hedgerows<sup>18</sup>, wet grasslands<sup>19–22</sup>, mesic grasslands<sup>23–29</sup>, dry grasslands<sup>22,30–35</sup>, acid grasslands and  
130 heathlands<sup>36–38</sup>, alpine grasslands<sup>39,40</sup>, rivers<sup>41</sup>, riverbanks<sup>42</sup>, peatlands<sup>43–46</sup>, roadsides<sup>47</sup> or arable  
131 land<sup>48–50</sup>. Sometimes, they were recorded to assess the changes in species composition across all  
132 communities that occur in a certain area<sup>51–55</sup>. So far, vegetation-plot time series have not been  
133 accessible without restrictions. In contrast, open access biodiversity time-series data such as  
134 BioTIME<sup>56</sup>, comprise all different types of taxonomic groups, ranging from plants, plankton and  
135 terrestrial invertebrates to vertebrates, but include only a few vegetation-plot time series. Thus, our  
136 database closes a gap for a particular region, which is Germany.

137 Vegetation-plot resurvey data have been extensively used to assess biodiversity changes by means of  
138 monitoring certain vegetation types in local studies, such as managed grasslands <sup>24</sup>and rivers <sup>41</sup>. More  
139 recently, time series have been collected across regions, exploring the contribution of local  
140 biodiversity change <sup>3</sup> to that observed at broader spatial scales <sup>1,57,58</sup>. While these analyses often  
141 failed to detect changes in species richness <sup>3,59,60</sup>, they were able to relate the observed trends to  
142 changes in land use and climate <sup>61,62</sup>. Although these studies have compiled databases on vegetation-  
143 plot time series, they are currently not openly available. This is also the case for the current initiative  
144 of ReSurveyEurope, which collates and mobilizes vegetation-plot data with repeated measurements  
145 over time (<http://euroveg.org/eva-database-re-survey-europe>). Our aim is to provide a  
146 comprehensive and taxonomically standardised database of vegetation-plot time series for Germany.  
147 We confined the geographical extent to Germany because of a long tradition of German vegetation  
148 scientists carrying out temporal observations on permanent plots (e.g.<sup>28</sup>), the large amount of  
149 available data, our familiarity with the regional literature, and of recent initiatives to mobilize  
150 retrospective biodiversity data for trend analyses ([www.idiv.de/smon](http://www.idiv.de/smon)).

151 Vegetation-plot time series differ in some fundamental ways from other biodiversity time series.  
152 Since the advent of phytosociology in the early 20th century<sup>63,64</sup>, vegetation surveys were carried out  
153 in a standardised way. Plot sizes of vegetation relevés can vary considerably and depend on the  
154 vegetation type considered (e.g. forest plots usually have plot sizes between 100 and 1000 m<sup>2</sup>, while  
155 non-forest plots mostly range from 4 to 100 m<sup>2</sup> <sup>65</sup>). In addition, sampling protocols might vary  
156 between studies, but they all include complete lists of species occurring at the plot at the time of  
157 sampling. In consequence, vegetation-plot records provide information on both presences and

158 absences of species in a community. As sampling is usually done by professionals, absences of a  
159 previously occurring species in a time series strongly indicates local extinction, or vice versa, the  
160 presence of a species that had not been recorded previously is a robust indication of colonization.  
161 However, even with experts carrying out the survey, it is possible that some species may remain  
162 undetected in the record because of their phenology or taxonomic uncertainties<sup>65</sup>. Yet, such  
163 vegetation-plot data are much more reliable than vegetation surveys at larger scales, such as floristic  
164 grid mapping, where false absence data are the rule<sup>66,67</sup>. In contrast to time series at broader spatial  
165 scales, vegetation-plot time series contain information on species co-occurrence at scales relevant  
166 for direct biotic interactions among individuals<sup>68</sup>. An additional advantage of vegetation-plot records  
167 is that they report the relative abundance of species, in the case of vegetation records from  
168 Germany, typically assessed as cover values<sup>69,65</sup>. Thus, vegetation-plot records allow testing key  
169 theories of biogeography, such as the abundance–range size relationship<sup>70</sup> or the relationship  
170 between local abundance and niche breadth<sup>71,72</sup>. Most importantly, several vegetation-plot time  
171 series precede the onset of any other systematic plant species monitoring programme, such as for  
172 example the monitoring of Natura 2000 sites in Europe, which only started in 2001<sup>73</sup>. This is  
173 particularly important because severe biodiversity loss may have already happened in the second  
174 half of the 20<sup>th</sup> century, mainly brought about by shifts in the type and intensity of landuse as the  
175 consequence of technical progress and societal changes<sup>74</sup>. Finally, species-abundance data in plots  
176 can be linked to functional information on species<sup>65</sup>, which allows the interpretation of the  
177 underlying ecological drivers of the changes observed and the consequences for ecosystem  
178 functioning<sup>75</sup>.

179 Based on the data described here we analysed for the first time the dynamics of losses and gains of  
180 plant species<sup>76</sup>. We showed that the difference in cover changes between decreasing and increasing  
181 species results in biodiversity change even if species richness at the plot scale remains unchanged.  
182 Two mechanisms are responsible for these changes. First, losses at the plot scale were more evenly  
183 distributed among losing species than gains among winning species. Second, gains and losses in cover  
184 were concentrated in different species, resulting in a higher number of losers than winners at the  
185 spatial scale of Germany. The temporal extent of the data allowed us to demonstrate that most  
186 species losses occurred already in the 1960s, affecting mostly species from mires and spring fens,  
187 grasslands and arable land. Thus, these data already helped to shed light on the most important  
188 mechanisms underlying biodiversity change in the second half of the 20<sup>th</sup> century.

189

## 190 **Data Records**

191 ReSurveyGermany is the most comprehensive compilation of repeated long-term vegetation plot  
192 records from Germany to date, including published studies as well as surveys from grey literature  
193 and nature conservation assessments. A list of all 92 projects included in the study is provided in  
194 Table 1. A project might comprise one or several studies and focus on one or several vegetation  
195 types, but typically carried out the surveys at the same times and with the same methodology. In  
196 total, the projects comprise 1,794 vascular plant species recorded in 7,738 vegetation plots. The plots  
197 were either marked with poles or magnets (permanent) or recovered from exact descriptions (semi-  
198 permanent). In addition, there were also studies where plots were not matched in time but a set of  
199 plots at a site was compared within another set of plots at the same site in the resurvey (community  
200 comparison, Fig. 1). We only considered records with complete lists of vascular plants and  
201 information on their relative abundance, which was mostly expressed as percentage cover<sup>77</sup>. A  
202 further important criterion for including a study was the existence of vegetation data for at least two  
203 points in time, although the number of visits (i.e. vegetation records) per site ranged between two  
204 and 54. The time span covered by each project is shown in Fig. 1. All records were made between

205 1927 and 2020. In total, ReSurvey Germany comprises 23,641 vegetation-plot records and 458,311  
206 species cover records.

207 Plot locations are not evenly spread across Germany (Fig. 2). We assigned the individual plot  
208 locations to the grid cells of the quadrants of German ordnance maps (“MTBQ,” 0°10′ × 0°6′,  
209 approximately 5.6 km × 5.9 km in the centre of Germany), and tested whether the grid cells with  
210 vegetation-plot time-series records differed from those without observations with respect to  
211 population density, road density, urban cover, cropland cover and protected areas. This revealed that  
212 the sampled grid cells were not representative for the whole area of Germany. Surprisingly, the  
213 sampled grid cells showed significantly higher human population densities, road densities and urban  
214 cover, while cover of cropland and the amount of protected area was lower (Table 2), which  
215 indicates that the majority of time series was made in regions with higher human pressures. The lack  
216 of spatial representativeness also becomes obvious when plotting maps of plot locations by the  
217 decade of the times when they were visited (Fig. 3).

218 While we did not deliberately exclude certain habitat types, the data mainly consist of semi-natural  
219 to intensively managed grasslands and forests. Thus, the time series in ReSurveyGermany are biased  
220 with respect to habitat types. We assigned EUNIS habitat types to each plot record. This was  
221 accomplished by using the expert system EUNIS-ESy<sup>78</sup> and the corresponding R code<sup>79</sup>. Plot records  
222 covered a total of 92 EUNIS habitat types out of the 150 ones distinguished for Germany. About 63%  
223 of the 23,641 plot records came from grasslands (level 1 EUNIS habitat R, n=14,849), followed by  
224 forests and other wooded lands (T, n= 5,440, 23%). In contrast, arable land (V, vegetated man-made  
225 habitats), which makes up more than 36% of the land cover in Germany, was only represented by 3%  
226 (816 plot records).

227

## 228 **Database organisation**

229 A separate database was created for each project that contributed data, using the data-management  
230 software Turboveg 2<sup>80</sup>. The database is composed of two main tables, following the structure of  
231 Turboveg and common practice in vegetation science. The plot-species-abundance table contains six  
232 fields as described in Table 3. It is linked to the plot metadata (header file) through  
233 PROJECT\_ID\_RELEVE\_NR, which is a unique Plot observation ID of a combination of PROJECT\_ID (see  
234 Table 1) and the plot observation ID (called RELEVE\_NR), the name of the observed taxon  
235 (TaxonName), the vertical layer (tree layer, shrub layer, herb layer, moss layer) in which the species  
236 was observed (LAYER) and the taxon’s cover in the plot (Cover\_Perc). The latter was obtained by  
237 transforming the original cover classes in per cent cover. For example, the seven cover classes of  
238 the Braun-Blanquet scale, r, +, 1, 2, 3, 4, 5 were transformed to 1%, 2%, 3%, 13%, 38%, 63%, 88%,  
239 respectively. The other table is the so-called header file, which holds all important plot-level  
240 information, such as plot sizes, geographic location and vegetation structure for each plot  
241 observation ID (Table 4).

242 The taxon names in the plot-species-abundance table were standardised using German SL 1.3<sup>81</sup>. The  
243 nomenclature for vascular plants followed Wisskirchen et al.<sup>82</sup>, with additional aggregations to higher  
244 taxonomic levels according to German SL 1.3. As some authors recorded subspecies and other  
245 infraspecific taxa, species were aggregated at the species level, using vegdata<sup>83</sup>. Some closely related  
246 species that, from our experience, are often mistaken in the field were merged at the aggregate or  
247 genus level. Species aggregates were also used when different taxon names of the same aggregate  
248 occurred in different projects, to prevent that the same taxon might appear under different taxon  
249 names. We used our own R code to merge taxon names and the notation of the ESy expert system<sup>78</sup>  
250 to protocol all steps. The species harmonisation forms the first section of the ESy system and shows

251 which taxon names were aggregated under the name of a broader taxonomic concept (Table 5). In  
252 addition, within single projects, we used customised aggregations and segregations when the same  
253 taxa were reported with different taxonomic levels at different points in time in the same plot  
254 resurvey IDs (Table 6). For example, in all years of a time series of a specific plot *Orchis militaris* was  
255 reported but in one year *Orchis spec.* was recorded at the genus level. Unaccounted for, such a leap  
256 between taxonomic levels within a time series would result in incorrect species change observations.  
257 To avoid losing the predominating information at the species level by aggregating all records to  
258 *Orchis*, we assumed that the taxon was also *Orchis militaris* in the particular year when only the  
259 genus level was reported. If more than one taxon occurred in previous years, we equally distributed  
260 the cover values among those taxa. This happened for example when a record was taken late in  
261 spring when the two species *Anemone nemorosa* and *A. ranunculoides* could no longer be  
262 distinguished.

263 The percentage cover values of the same aggregated taxon name of the same plot were merged,  
264 assuming a random overlap of their cover values and making sure that the combined cover values  
265 cannot exceed 100%<sup>78</sup>. As not all projects had recorded cryptogams, we removed bryophytes and  
266 lichens in all projects, using the vegdata package in R<sup>83</sup>. As a result, the original list of 3,280 taxon  
267 names that included bryophytes and lichens was reduced to 1,794 taxon names of vascular plants.  
268 However, if data on lichens and bryophytes are required, they are available on request from the  
269 respective dataset custodians (see Table 1).

270 The data structure of the header file of ReSurveyGermany follows the Turboveg 2 standard<sup>80</sup> and in  
271 addition holds the fields of ReSurveyEurope (<http://euroveg.org/eva-database-re-survey-europe>)  
272 (Table 4). The fields relevant for the resurvey are RS\_PROJECT, which refers to the resurvey project in  
273 Table 1. The header field RS\_SITE holds the location name of plots and allows for a local geographical  
274 scale aggregation of resurvey plots within projects. LOCALITY provides more details on the locality in  
275 German

276 Within each project, the field RS\_PLOT holds a plot resurvey ID that connects plot observations from  
277 different times made on the same plot. In resurveys, there are also cases, where the previously  
278 provided location was not precise enough. In these cases, resurveys often used several plots to  
279 match one previous plot, resulting in a one-to-many relationship. If a set of plots at the same site was  
280 compared with plot records from another point in time, this field is empty and the unique identifier  
281 indicating which plots have to be matched is found in the field RS\_SITE. We still keep the original  
282 observation ID that a plot received when it was surveyed (RS\_OBSERV). We report the exact DATE  
283 when a record was made (if available). In addition, the field YEAR lists the year in which the plot was  
284 (re)surveyed. If available, we also report the year of the underlying publication (YEAR\_PUBL).

285 Plot area (SURF\_AREA) ranges from 0.5 to 2500 m<sup>2</sup>, with 25, 100 and 400 m<sup>2</sup> being the most  
286 frequently used plot sizes (Fig. 4). Plot sizes larger than 100 m<sup>2</sup> were typical of forest sites (with a  
287 very few exceptions).

288 Geographic information is given by LONGITUDE, LATITUDE and ALTITUDE. Current monitoring  
289 programs and data protection of land owners do not allow us to provide location information at the  
290 highest available precision. In addition, some records contain occurrence data of rare and protected  
291 species. Thus, information on longitude and latitude was rounded to two decimal digits. Compared to  
292 the coordinates at highest available precision, rounding resulted in a mean uncertainty of 371 m ( $\pm$   
293 138 m standard deviation), and thus, is within the somewhat limited range of accuracy provided by  
294 many custodians in the first place (see field PRECISION). If more precise coordinates are required for  
295 certain analysis we recommend to contact the respective data owners (as shown in Table 1).

296 Vegetation-plot time series differ with respect to the accuracy of the plot relocation during the

297 resurvey. In the ideal case, plots are permanently marked, using poles, metal tent pegs or magnets  
298 and metal detectors to retrieve their position (shown as “01” in the LOC\_METHOD field, Table 4). In  
299 other cases, plots only have exact coordinates (using GPS coordinates, “03” or “04”) or other ways of  
300 descriptions of the exact locality (such as from maps, “05”), but are not marked on the ground, which  
301 we refer to as semi-permanent plots. In addition, there is information on the cover scale used for the  
302 record, a reference to the data source (or, if published, the publication ID), including the table and  
303 column from which the data were taken.

304

305 The orientation of the plot can be taken from SLOPE (inclination) and slope ASPECT (compass  
306 directions). Vegetation structure is described by the height and cover of the different layers, ranging  
307 from tree layer to moss layer and including information on cover of litter and bare soil (if available).

308

309 Some of our projects included experimental treatments with different management of habitats (e.g.  
310 abandonment or establishment of grazing, succession and disturbance). Plots with experimental  
311 manipulation contain “Y” in the MANIPULATE) field. The type of manipulation can be taken from  
312 MANIPTYPE. When projects involved treatments that are not representative for biodiversity change  
313 in the study, we included only the control plots<sup>44</sup>, plots that reflected the predominant land use at  
314 the site (e.g. mowing for a grassland to counteract natural succession)<sup>20</sup>, that were unfenced<sup>84</sup> or  
315 were subjected to continuous grazing<sup>85</sup>.

316

### 317 **Usage notes**

318 The data of the ReSurveyGermany dataset as described above is available  
319 <https://doi.org/10.25829/ivid.3508-c17blk> under the terms specified by CC BY 4.0.

320 [Please note that the link is not yet activated, which will happen around May 25<sup>th</sup>, 2022. In the  
321 meantime you can already access the metadata via

322 <https://idata.idiv.de/ddm/Data/ShowData/3508?version=0> and the full dataset here:

323 <https://cloud.uni-halle.de/s/wei1ljqnq2Wet0A>

324 [This part marked in yellow will then be deleted from the paper]

325 Users are urged to cite the original sources when using ReSurveyGermany in addition to the present  
326 paper (see Table 1). As some of the time series will be continued, it might be useful to contact the  
327 respective data owners. As described above, the dataset cannot be considered representative of  
328 Germany’s vegetation, neither spatially, nor temporally, which is typical of vegetation-plot time  
329 series<sup>86</sup>. As plots were established with different objectives in different habitats at different points in  
330 time, analysis of vegetation-plot resurveys faces various methodological challenges<sup>60</sup>. Yet, we note  
331 that ReSurveyGermany covers about 60% of the 2,988 vascular plant species that occur in Germany  
332 (without subspecies and segregates<sup>82</sup>) and includes rare habitats which often harbour rare plant  
333 species. This means that even if our sites are not fully representative of the vegetation of Germany  
334 and its change over the last century, the data nevertheless give important insights into biodiversity  
335 change at the level of local communities and individual species.

336

### 337 **Code availability**



338 The R code to read the plot-species-abundance file (ReSurveyGermany.csv) and combine it with the  
339 header data (Header\_ReSurveyGermany.csv) is provided on [https://github.com/idiv-](https://github.com/idiv-biodiversity/Read_ReSurveyGermany)  
340 [biodiversity/Read\\_ReSurveyGermany](https://github.com/idiv-biodiversity/Read_ReSurveyGermany).

341

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353

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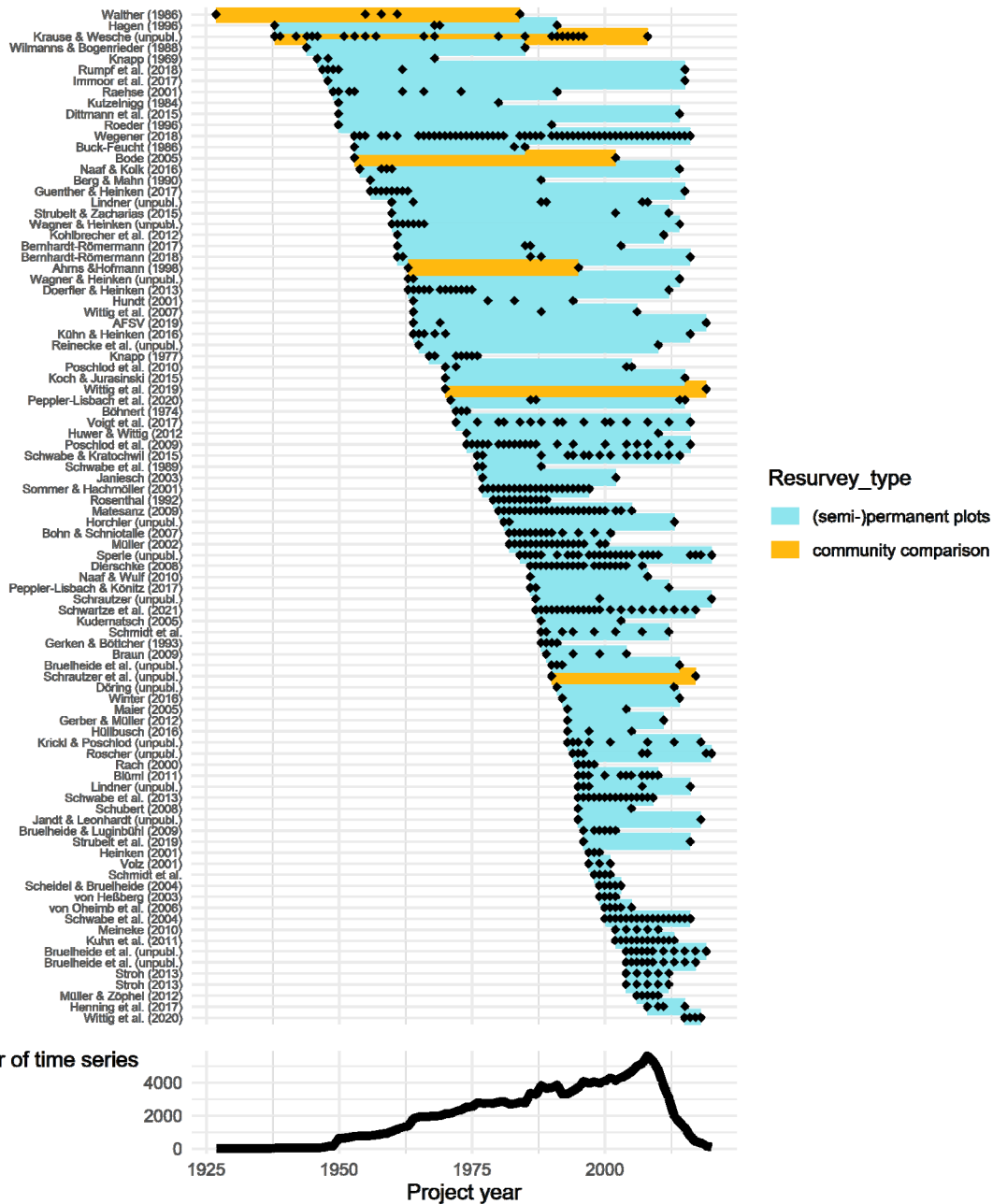
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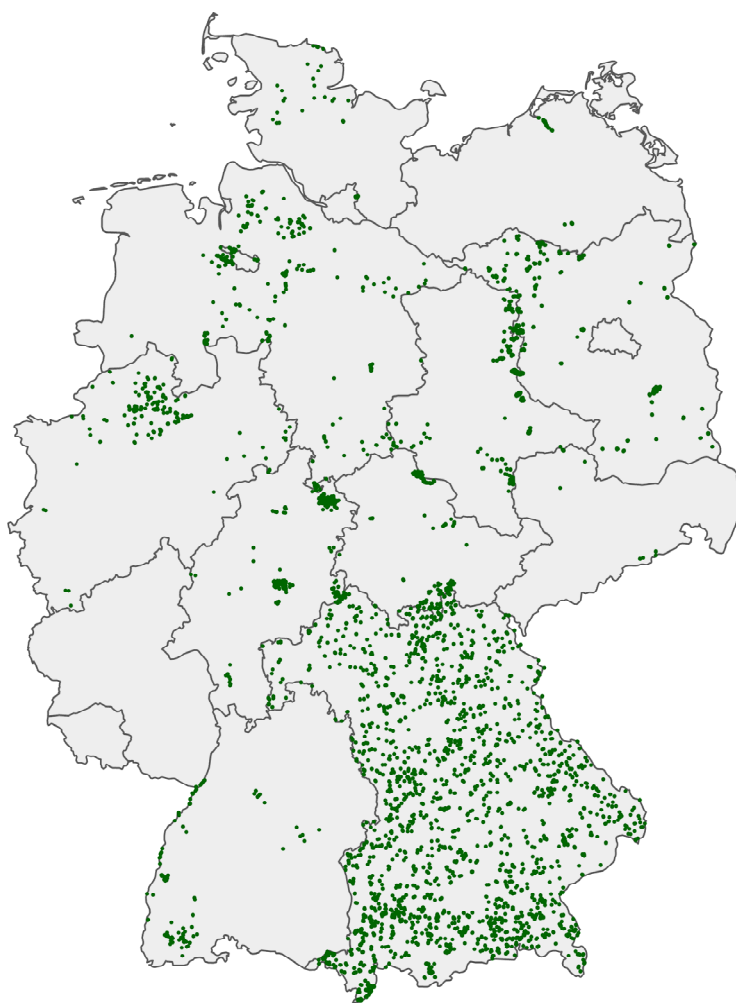
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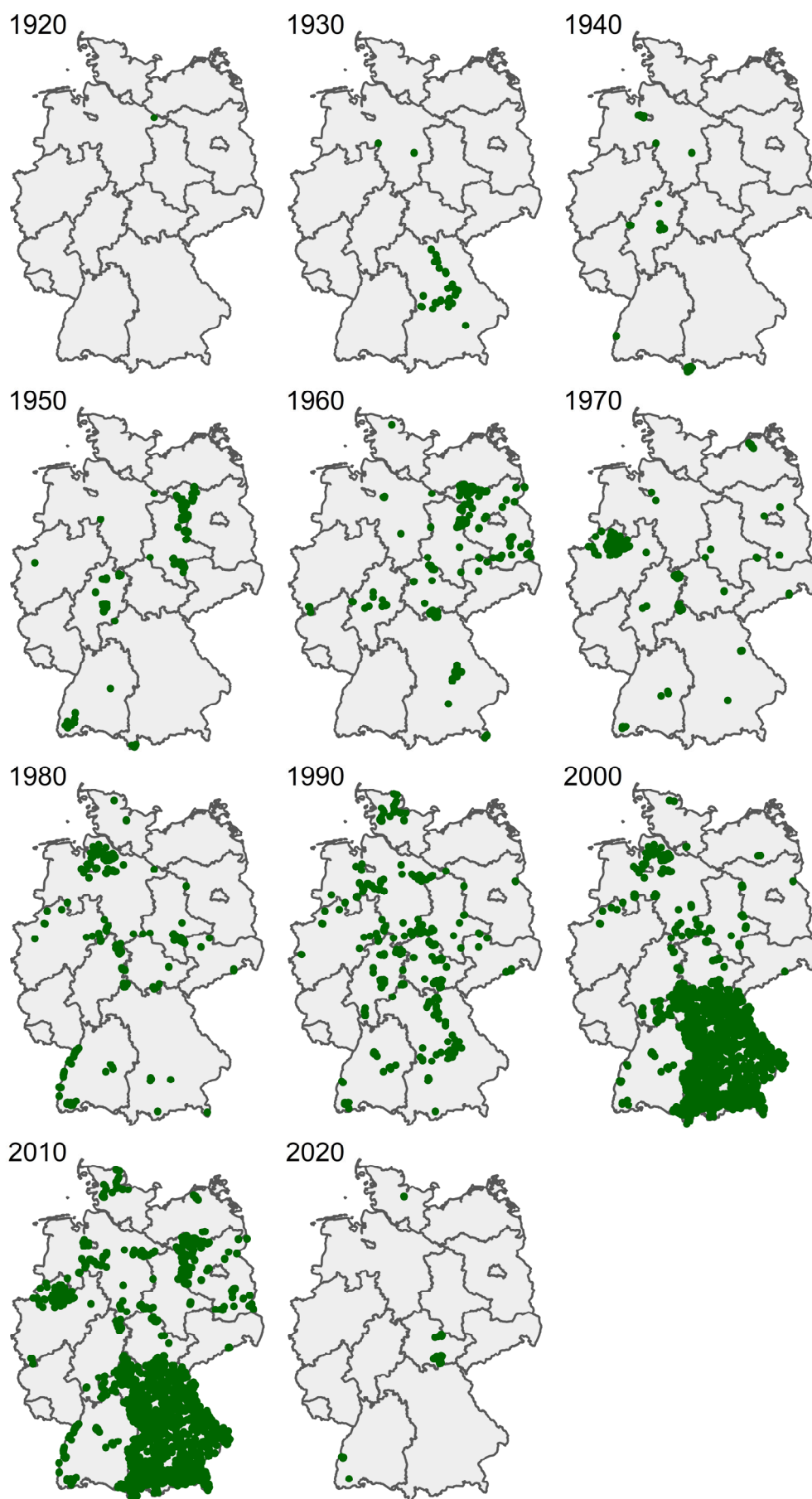
567 Fig. 1: Temporal coverage of the 92 projects included in the study. The coloured lines indicate the  
 568 start and the end of a project, black diamonds show in which years surveys were made. Resurvey  
 569 type refers to either studies that were repeated within a particular community across a site without  
 570 attempts to match plots (community comparison), or were carried out on matched plots, which were  
 571 either permanently marked or retrieved from exact descriptions (semi-permanent). The lower graph  
 572 shows the number of times a particular year was included in the covered time span of any of the  
 573 projects. For a list of projects see Table 1.

574



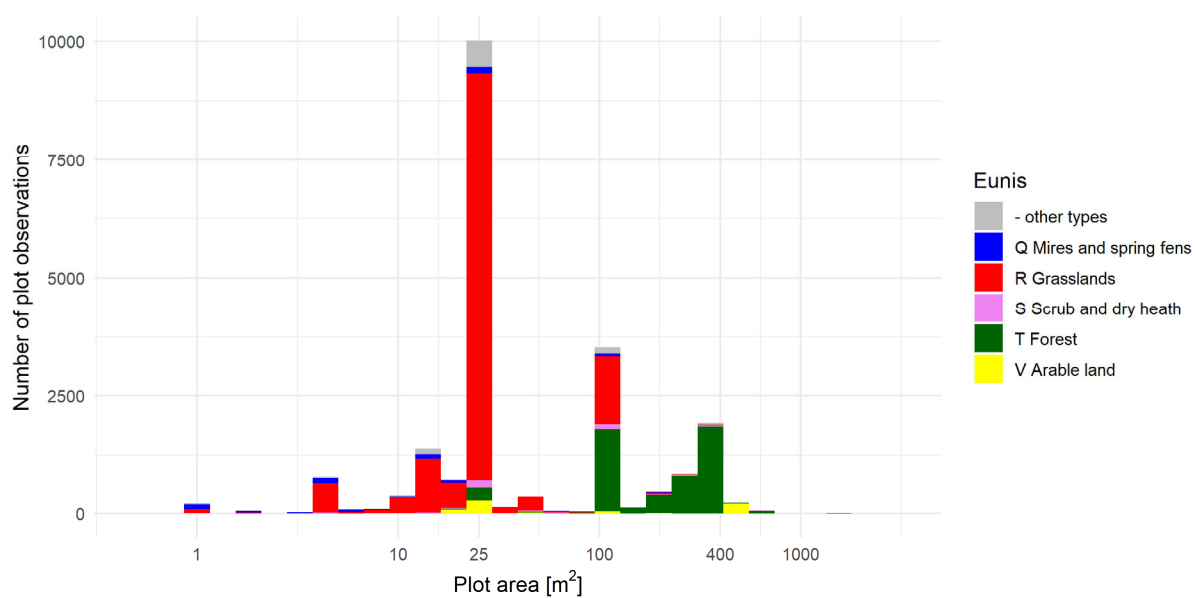
575

576 Fig. 2: Map of all plots of all projects (n=23,641). Note that green dots may represent one or several  
577 plots which were summarised under the same plot resurvey ID (n=7,738). The more complete  
578 coverage of Bavaria resulted from including the grassland monitoring Bavaria which started in 2002  
579 <sup>24</sup>.



580

581 Fig. 3: Map of plot visits by decade, with the year showing the begin of the decade.



582

583 Fig. 4: Histogram of plot size across all records (n=23,641). Colours show Eunis level 1 habitat types.

584

585 Table 1: List of all projects included in this study. PROJECT\_ID: internal reference number.  
 586 EUNIS habitat types of time series were assigned to the habitat type by using the earliest  
 587 plot record that resulted in level 3 EUNIS classification. The classification was based on the  
 588 EUNIS-ESy expert system<sup>78</sup> using the R code implementation<sup>79</sup>. If a project included several  
 589 habitat types, they are shown in decreasing numbers of plot records. Code for habitat types  
 590 are ?: plots not assigned to any level 3 EUNIS habitat type, +: assigned to more than one  
 591 level 3 EUNIS habitat type, A: Marine habitats, C: Inland surface waters, H: Inland sparsely  
 592 vegetated habitats or devoid of vegetation, N: Coastal habitats, Q: Wetlands, R: Grasslands  
 593 and lands dominated by forbs, mosses or lichens, S: Heathlands, scrub and tundra, T: Forests  
 594 and other wooded land, V: Vegetated man-made habitats, including arable land.

| PROJECT_ID | Project Name               | Reference  | EUNIS habitat type                                  |
|------------|----------------------------|--|---|
| 77         | AFSV (2019)                | Arbeitsgemeinschaft Forstliche Standorts- und Vegetationskunde (AFSV) (2019) Nordwest-Eifel - Standorte, Waldgesellschaften, Nutzungen gestern und heute. Exkursionsführer der AFSV-Tagung 2019 in der Nordwesteifel. Verlag Dr. Kessel, Remagen-Oberwinter. | T17   |
| 1          | Ahrns & Hofmann (1998)     | Ahrns, C. & Hofmann, G. (1998) Vegetationsdynamik und Florenwandel im ehemaligen mitteldeutschen Waldschutzgebiet "Hainich" im Intervall 1963 - 1995. <i>Hercynia</i> N.F. 31: 33-64.  | T17   |
| 4          | Berg & Mahn (1990)         | Berg, C. & Mahn, E.-G. (1990) Anthropogene Vegetationsveränderungen der Strassenrandvegetation in den letzten 30 Jahren - die Glatthaferwiesen des Raumes Halle Saale. <i>Tuexenia</i> 10: 185-195.  | R22, R  |
| 2          | Bernhardt-Römermann (2017) | (Echinger Lohe)  | T1F, T1E, T13, T                                    |
| 3          | Bernhardt-Römermann (2018) | (Sonneberg)  | T35, T32, T1F, T18, T17, T, S42, R57, R, ?          |
| 5          | Blüml (2011)               | Blüml, V. (2011) Langfristige Veränderungen von Flora und Vegetation des Grünlandes in der Dümmerniederung (Niedersachsen) unter dem Einfluss von Naturschutzmaßnahmen. Dissertation, Universität Bremen.  | R55, R36, R35, R21, R, Qb, Q52, Q51                 |
| 6          | Bode (2005)                | Bode, F. (2005) Subrezenter Vegetations- und Landschaftswandel im Südschwarzwald. Dissertation, Albert-Ludwigs-Universität Freiburg.   | S42   |
| 92         | Bohn & Schniotalle (2007)  | Bohn, U. & Schniotalle, S. (2007) Hochmoor-, Grünland- und Waldrenaturierung im Naturschutzgebiet "Rotes Moor", Hohe Rhön 1981 - 2001: Ergebnisse 20-jähriger wissenschaftlicher   | T12, S92, R37, R35, R23!, R23, R1M, Qa, Q24, Q22, ? |

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| 90 | Bruelheide et al. (unpubl.)   | (Preuk)  | T35, T1B, T, Sa  |
| 91 | Bruelheide et al. (unpubl.)   | (Schiessplatz)   | T35, R   |
| 8  | Buck-Feucht (1986)            | Buck-Feucht, G. (1986) Vergleich alter und neuer Vegetationsaufnahmen im Forstbezirk Kirchheim unter Teck. Mitteilungen des Vereins für forstliche Standortskunde und Forstpflanzenzüchtung (32): 43-49.           | T1E, T18, T17, T13, T  |
| 76 | Dierschke (2008)              | Dierschke, H. (2008) Dynamik und Konstanz an naturnahen Flussufern -27 Jahre Dauerflächenuntersuchungen am Oderufer (Harzvorland). Braunschweiger Geobotanische Arbeiten 9: 119-138.                               | R55  |
| 10 | Dittmann et al. (2015)        | Dittmann, T., Heinken, T. & Schmidt, M. (2018) Die Wälder von Magdeburgerforth (Fläming, Sachsen-Anhalt) – eine Wiederholungsuntersuchung nach sechs Jahrzehnten. Tuexenia 38: 11-42.                              | T35, T1E, T1B, T18, T17, T15, T13, T12, T                              |
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| 12 | Döring (unpubl.)              | Feuchtwälder in den Landkreisen Diepholz und Uelzen; Wiederholungsaufnahmen von PD Dr. Wilfried  | T1E, T16, T15, T13, T12, T   |

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| 13 | Gerken & Böttcher (unpubl.)         | Abschlußbericht, unpubl.   | V38, R22, R1A, R, H26a, ?                                    |
| 15 | Günther et al. (2021)               | Günther, K., Schmidt, M., Quitt, H. & Heinken, T. (2021): Veränderungen der Waldvegetation im Elbe-Havelwinkel von 1960 bis 2015. Tuexenia 41: 53-85.  | T3M, T35, T1B, T16, T15, T13, T12, T, S92, S42               |
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| 44 | Peppler-Lisbach et al. (2020)   | Peppler-Lisbach, C, Stanik, N, Könitz, N, Rosenthal, G. (2020) Long-term vegetation changes in <i>Nardus</i> grasslands indicate eutrophication, recovery from acidification, and management change as the main drivers. Applied Vegetation Science 23: 508-521. <a href="https://doi.org/10.1111/avsc.12513">https://doi.org/10.1111/avsc.12513</a>   | Sb, Sa, S42, R37, R35, R23!, R23, R22, R1M, R     |
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| 9  | Sperle (unpubl.)            |  | V39, V11, T3K, T12, Sb, S42, S38, R56, R55, R37, R35, R22, R1A, R, Qb, Qa, Q51, Q42, Q41, Q25, Q24, ? |
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| 46 | Stroh (2013)                | Stroh, H.-G. (2013) Wiederholung der vegetationskundlichen Erfassungen an den Dauerbeobachtungsflächen der Kalkmagerrasen der Weper und des Gladebergs. Zwischenbericht für das Jahr 2012. Im Auftrag des Niedersächsischen Landesbetriebs für Wasserwirtschaft Küsten- und Naturschutz, Hannover.                            | Sa, R1A, ?   |
| 47 | Strubelt & Zacharias (2015) | Strubelt, I., Diekmann, M. & Zacharias, D. (2015) Langzeitmonitoring der Vegetation über 52 Jahre im Hartholzauenwald (Querco-Ulmetum minoris Issler 1924) im Haseder Busch (Landkreis Hildesheim). Braunschweiger Geobotanische Arbeiten 11: 173-247   | T3M, T1F, T1E, T17, T13, T   |
| 66 | Strubelt et al. (2019)      | Strubelt, I., Diekmann, M., Pepler-Lisbach, C., Gerken, A. & Zacharias, D. (2019) Vegetation changes in the Hasbruch forest nature reserve (NW Germany) depend on management and habitat type. Forest Ecology and Management, 444, 78–88.   | T1E, T1B, T18, T17, T13, T   |
| 56 | Volz (2001)                 | Volz, H. (2001) Vegetationskundliches Monitoring im NSG Lange Rhön Gebiet Leitgraben. Bearbeitungszeitraum 2001. Gutachten Umweltplanung Volz, Giessen, 62 S.   | R57, R35   |
| 35 | von Oheimb et al. (2006)    | v. Oheimb, G., Eiseid, I., Finck, P., Grell, H., Härdtle, W., Mierwald, U., Riecken, U., Sandkühler, J. (2006) Halboffene Weidelandschaft Höltigbaum. Perspektiven für den Erhalt und die naturverträgliche Nutzung von Offenlandlebensräumen. Naturschutz und Biologische Vielfalt 36: 1-280. Landwirtschaftsverlag Münster. | V39, T13, T, R55, R52, R36, R35, R22, R21, R1P, R1M, R, Qb, Q53, Q52, N15, C35a, ? |
| 50 | Wagner & Heinken (unpubl.)  |   | T3M, T35, T1H, T1E, T1B, T18, T13, T, S42, R, ?                                    |
| 51 | Wagner & Heinken (unpubl.)  |   | T35, T1F, T1E, T1B, T18, T17, T13, T12, T, R55, R51, R1M, R, ?                     |
| 49 | Walther (1986)              | Walther, K. (1986) Die Vegetation des Maujahn 1984. Wiederholung der vegetationskundlichen Untersuchung eines wendländischen Moores. Tuexenia 6: 145-193. Göttingen.  | T1B, R37, R35, R1P, Q51  |
| 52 | Wegener (2018)              | Wegener, U. (2018) Vegetationswandel des Berggrünlands nach Untersuchungen von 1954 bis 2016. Wege zur Erhaltung der Bergwiesen. Abh. und Ber. aus dem Museum Heineanum 11: 35-101.   | R23  |

|    |                               |   |  |
|----|-------------------------------|---|--|
| 53 | Wilmanns & Bogenrieder (1988) | Wilmanns, O. & Bogenrieder, A. (1986) Veränderungen der Buchenwälder des Kaiserstuhls im Laufe von vier Jahrzehnten und ihre Interpretation - pflanzensoziologische Tabellen als Dokumente. Abhandlungen aus dem westfälischen Museum für Naturkunde 48(2): 55-80 | T18, T, ?  |
| 81 | Winter (unpubl.)              | Winter, R. (2016) Flora und Vegetationsentwicklung der Sukzessionsfläche "Wildnis am Bunker Valentin" in der Bremer Weseraue bei Farge. Bachelorthesis Hochschule Bremen, Studiengang Technische und angewandte Biologie, 61 S.                                   | T, S42, Q51  |
| 18 | Wittig et al. (2007)          | unpublished data for: Wittig, B., Waldmann, T., Diekmann, M. (2007) Veränderungen der Grünlandvegetation im Holtumer Moor über vier Jahrzehnte. <i>Hercynia N.F.</i> 40: 285-300.   | V38, V37, V15, V11, V, T16, T15, T13, T12, S92, S41, R55, R52, R37, R36, R35, R22, R21, R, Qa, Q53, Q51, Q22 |
| 75 | Wittig et al. (2019)          | Wittig, B., Müller, J., Mahnke-Ritoff, A. (2019) Talauen-Glatthaferwiesen im Verdener Wesertal (Niedersachsen). <i>Tuexenia</i> 39: 249-265. Göttingen  | R22  |
| 82 | Wittig et al. (2020)          | Wittig, B., Müller, J., Quast, R., Miehlich, H. (2020) <i>Arnica montana</i> in <i>Calluna</i> -Heiden auf dem Schießplatz Unterlüß (Niedersachsen). <i>Tuexenia</i> 40: 131-146. Göttingen.  | S42, R1M   |

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Table 2: Representativeness of grid cells (“MTBQ,” 0°10′ × 0°6′) with time series. The estimates were obtained from linear models comparing samples with unsampled MTBQs with respect to population density, road density, urban cover, cropland cover and protected area.

| Predictors                              | Population density |                   |        | Road density  |                  |        | Urban cover   |                  |        | Cropland cover |                |        | Protected area |                |        |
|---|--------------------|-------------------|--------|---------------|------------------|--------|---------------|------------------|--------|----------------|----------------|--------|----------------|----------------|--------|
|   | Estimates          | CI                | p      | Estimates     | CI               | p      | Estimates     | CI               | p      | Estimates      | CI             | p      | Estimates      | CI             | p      |
| (Intercept)                             | 30547              | 30128 –<br>309645 | <0.001 | 1.59          | 1.55 –<br>1.63   | <0.001 | 0.07          | 0.06 –<br>0.07   | <0.001 | 0.45           | 0.44 –<br>0.45 | <0.001 | 0.01           | 0.01 –<br>0.01 | <0.001 |
| type<br>[unsampled]                     | -6686              | -7447 –<br>-5925  | <0.001 | -0.52         | -0.59 –<br>-0.45 | <0.001 | -0.03         | -0.03 –<br>-0.03 | <0.001 | 0.01           | 0.00 –<br>0.02 | 0.029  | 0.01           | 0.01 –<br>0.01 | <0.001 |
| Observations                            | 11226              |                   |        | 25303         |                  |        | 12024         |                  |        | 12024          |                |        | 29535          |                |        |
| R <sup>2</sup> /R <sup>2</sup> adjusted | 0.026 / 0.026      |                   |        | 0.008 / 0.008 |                  |        | 0.019 / 0.019 |                  |        | 0.000 / 0.000  |                |        | 0.038 / 0.038  |                |        |

Table 3: Data structure of the Plot-species-abundance file of ReSurveyGermany. For Type: C = character, N = numeric, I = integer (n=23,641)

| <b>Field name</b>        | <b>Type</b> | <b>Description</b>  |
|--------------------------|-------------|---|
| PROJECT_ID               | I           | Number of the resurvey project in ReSurveyGermany; see Table 1  |
| RELEVE_NR                | I           | Plot observation ID, only unique within a RS_PROJECT, usually the original plot observation ID from the underlying Turboveg 2 database  |
| PROJECT_ID<br>_RELEVE_NR | C           | Unique Plot observation ID, by which the project's plot-species-abundance file is linked to the header file, combination of PROJECT_ID and RELEVE_NR  |
| LAYER                    | I           | 0: No layer, 1: Tree layer (uppermost), 2: Tree layer (middle), 3: Tree layer (lowest), 4: Shrub layer (uppermost), 5: Shrub layer (low), 6: Herb layer, 7: Juveniles, 8: Seedling (< 1 year), 9: Moss layer. |
| TaxonName                | C           | Harmonized taxon name   |
| Cover_Perc               | C           | Cover of the taxon in per cent  |

Table 4: Data structure of the header file of ReSurveyGermany. For Type: C = character, N = numeric, I = integer. Per cent of NA values is given by dividing the number of NAs by (n=23,641)

| Field name               | Type | Description  | Number of NAs |
|--------------------------|------|--|---------------|
| RS_PROJECT               | C    | Unique name of the resurvey project; for the list of the 92 projects and the underlying references see Table 1   | 0             |
| PROJECT_ID               | I    | Number of the resurvey project in ReSurveyGermany; see Table 1   | 0             |
| RS_PLOT                  | C    | Unique (within the site) code of the resurveyed plot; it is used to pair observations from different times recorded in the same plot; gives a unique identifier for the resurveyed plot or set of plots in time if combined with RS_PROJECT. Several plots in the same year might have the same RS_PLOT code if they have to be summarised for temporal comparisons. In these cases, they might also contain the community name. | 0             |
| RS_SITE                  | C    | Name of the resurveyed site. For further details see LOCALITY.   | 0             |
| LOCALITY                 | C    | More detailed description of the locality of the resurveyed site (in German and if available)  | 8,499         |
| RS_OBSERV                | C    | Unique code of the one-time observation; combination of RS_SITE, RS_PLOT, YEAR   | 0             |
| RELEVE_NR                | I    | Plot observation ID, only unique within a RS_PROJECT, usually the original plot observation ID from the underlying Turboveg 2 database   | 0             |
| PROJECT_ID<br>_RELEVE_NR | C    | Unique Plot observation ID, by which the project's plot-species-abundance file is linked to the header file, combination of PROJECT_ID and RELEVE_NR   | 0             |
| DATE                     | C    | Date of the record (YYYYMMDD); the exact date if provided by the author, otherwise only the year and month or only year; if the year was not provided by the author, we took the year of the publication   | 0             |
| YEAR                     | I    | Year of the record (YYYY), extracted from DATE   | 0             |
| SURF_AREA                | N    | Plot size [m <sup>2</sup> ] (only stated if available)   | 2064          |

|                      |   |  |        |
|----------------------|---|--|--------|
| MANIPULAT<br>E       | C | Binary information (Y/N) about whether the plot was part of a manipulative experiment (“Y”) or not (“N”). If “Y”, we chose the treatments representing the ambient land use. Observations with NA were to our knowledge not part of an experiment, and thus, can be treated as “N”.                        | 15,020 |
| MANIPTYPE            | C | Shows the type of treatment in the plot manipulation (partly in German and only if available).   | 20,255 |
| LAND_USE             | C | Land use, often identical with MANIPTYPE (mostly in German, also using the abbreviations used in the particular study, and only if available)  | 18,149 |
| LOC_METHO<br>D       | C | Method of plot (re-)location, 1: Permanently marked plot isolated (i.e. somewhere within the site), 2: Marked plot in a grid (i.e. with regularly spaced neighbor plots), 3: Location with differential GPS, 4: Location with GPS, 5: Location from accurate map, 6; Location from a description, 7: Other | 12,607 |
| LOC_METH_<br>COMMENT | C | Detailed description of the location method (if available)   | 20,163 |
| LONGITUDE            | N | Longitude of the plot in decimal degrees, coordinate system WGS-84; this coordinate should refer to the centre of the plot; coordinates were rounded to 2 digits of decimal degrees.   | 0      |
| LATITUDE             | N | Latitude of the plot in decimal degrees, rounded to 2 digits as LONGITUDE  | 0      |
| PRECISION            | I | Uncertainty in m, of coordinates for geographic position of plots, provided by the author or estimated if coordinates were taken from a topographic map. PRECISION refers to the true coordinates, not to those rounded to two digits.   | 13,034 |
| GEO_LEV              | C | Method of how the geographic location was obtained: GPS = Geographical positioning system, MTB = center of the German ordnance map, MTB_4 = center of a quadrant of the German ordnance map, POINT = all other   | 0      |
| ALTITUDE             | I | Elevation [m] (if available)   | 14,723 |
| ASPECT               | N | Compass direction of the slope in degrees [°], 0° = N, 90°=E etc. NA shows plot records either without aspect information or with aspect information when SLOPE is 0.  | 16,572 |
| SLOPE                | I | Inclination of the slope in degrees [°]  | 18,962 |

|            |   |   |        |
|------------|---|---|--------|
| COUNTRY    | C | DE for Germany  | 0      |
| EUNIS      |   | EUNIS level 3 code of the habitat, as obtained by applying the expert system EUNIS-ESy <sup>78</sup> and the corresponding R code <sup>79</sup> .   | 0      |
| COVERSCALE | C | Cover scale used for the plot record. 00 = no scale, cover estimated in per cent (%), 01 = Braun/Blanquet (old), 02 = Braun/Blanquet (new), 03 = Londo, 04 = Presence/Absence, 10 = Reichelt & Wilmanns 1973 (short), 26 = Londo (short), 29 = Londo per cent classes, 30 = Londo (modified, in project 9, Sperle et al. unpublished), 31 = Maas & Kohler 1983 (in project 86, Poschlod et al. 2010), 50 = Londo (modified, in project 89, Bruelheide & Luginbühl 2009) | 0      |
| REFERENCE  | C | Reference number in GVRD, 6 digits referring to the bibliographic reference, found in ReSurveyGermanyReference.csv  | 51     |
| YEAR_PUBL  | I | Year of the publication (if available)  | 18,057 |
| TABLE_NR   | C | Number of the table in the original publication   | 12,659 |
| TABNAME    |   | Name of the table in the original publication   | 8,402  |
| NR_IN_TAB  | C | Column name in the TABLE_NR   | 3,789  |
| ORIG_NR    |   | Name of the plot given by the author in the original publication  | 10,172 |
| ORIG_DB    |   | Name of original Turboveg file, to be used internally for backtracking changes  | 19,700 |
| COV_TOTAL  | I | Total cover of all layers [%] (if available)  | 18,704 |
| COV_TREES  | I | Cover of the tree layer [%] (if available)  | 20,554 |

|                |   |   |        |
|----------------|---|---|--------|
| COV_SHRUB<br>S | I | Cover of the shrub layer [%] (if available)                         | 20,520 |
| COV_HERBS      | I | Cover of the herb layer [%] (if available)                          | 11,964 |
| COV_MOSSE<br>S | I | Cover of the moss layer (bryophytes and lichens) [%] (if available) | 17,512 |
| COV_LITTER     | I | Cover of the litter layer on the ground [%] (if available)          | 20,786 |
| COV_ROCK       | I | Cover of the rocks on the plot surface [%] (if available)           | 21,697 |
| TREE_HIGH      | I | Height of the upper tree layer [m] (if available)                   | 22,317 |
| TREE_LOW       | I | Height of the lower tree layer [m] (if available)                   | 23,107 |
| SHRUB_HIG<br>H | N | Height of the upper shrub layer [m] (if available)                  | 22,848 |
| SHRUB_LOW      | N | Height of the lower shrub layer [m] (if available)                  | 23,478 |
| HERB_HIGH      |   | Mean height of the upper herb layer [cm] (if available)             | 20,311 |
| HERB_LOW       |   | Mean height of the lower herb layer [cm] (if available)             | 22,317 |
| HERB_MAX       |   | Maximum height of the herb layer [cm] (if available)                | 22,627 |

Table 5: List of all taxa that were harmonised across all projects. The format of the list follows the rules of the ESy system<sup>78</sup>. The taxon names that were aggregated below a broader concept name are indented using five blanks. The number to the right shows the German SL 1.3<sup>81</sup> number for each taxon.

|   |       |
|---|-------|
| Achillea atrata agg.                    | 18    |
| Achillea atrata                         | 19    |
| Achillea atrata agg.                    | 18    |
| Achillea millefolium agg.               | 27    |
| Achillea millefolium                    | 31    |
| Achillea millefolium agg.               | 27    |
| Achillea millefolium subsp. collina     | 20096 |
| Achillea millefolium subsp. millefolium | 32    |
| Achillea pannonica                      | 34    |
| Achillea setacea                        | 36    |
| Acinos arvensis                         | 49    |
| Acinos arvensis                         | 49    |
| Calamintha acinos                       | 976   |
| Satureja acinos                         | 23760 |
| Aconitum lycoctonum                     | 14242 |
| Aconitum lycoctonum                     | 14242 |
| Aconitum lycoctonum subsp. vulparia     | 20209 |
| Aconitum vulparia                       | 68    |
| Adonis aestivalis                       | 76    |
| Adonis aestivalis                       | 76    |
| Adonis aestivalis var. citrinus         | 27247 |
| Agrimonia eupatoria                     | 99    |
| Agrimonia eupatoria                     | 99    |
| Agrimonia eupatoria subsp. eupatoria    | 100   |
| Agrostis canina agg.                    | 120   |
| Agrostis canina                         | 121   |
| Agrostis coarctata                      | 20180 |
| Agrostis stricta                        | 122   |
| Agrostis vinealis                       | 20684 |
| Agrostis capillaris                     | 20178 |
| Agrostis capillaris                     | 20178 |
| Agrostis capillaris subsp. oreophila    | 7086  |
| Agrostis tenuis                         | 130   |
| Agrostis vulgaris                       | 20179 |
| Agrostis stolonifera agg.               | 127   |
| Agrostis alba var. stolonifera          | 27181 |
| Agrostis gigantea                       | 128   |
| Agrostis stolonifera                    | 129   |
| Agrostis stolonifera agg.               | 127   |
| Agrostis stolonifera subsp. stolonifera | 6550  |
| Aira caryophyllea                       | 26920 |
| Aira caryophyllea                       | 26920 |
| Aira caryophyllea subsp. caryophyllea   | 20218 |
| Alchemilla conjuncta agg.               | 154   |
| Alchemilla conjuncta agg.               | 154   |
| Alchemilla hoppeana                     | 166   |
| Alchemilla nitida                       | 10027 |
| Alchemilla fissa agg.                   | 177   |
| Alchemilla fallax                       | 179   |
| Alchemilla fissa                        | 180   |
| Alchemilla fissa agg.                   | 177   |
| Alchemilla hybrida agg.                 | 190   |
| Alchemilla flabellata                   | 194   |
| Alchemilla glaucescens                  | 195   |
| Alchemilla hybrida agg.                 | 190   |
| Alchemilla mollis                       | 200   |

|  |       |
|--|-------|
| <i>Alchemilla acutiloba</i> var. <i>mollis</i>             | 20237 |
| <i>Alchemilla vulgaris</i> agg.                            | 209   |
| <i>Alchemilla acutiloba</i> var. <i>stellata</i>           | 11694 |
| <i>Alchemilla crinita</i>                                  | 219   |
| <i>Alchemilla glabra</i>                                   | 235   |
| <i>Alchemilla micans</i>                                   | 20278 |
| <i>Alchemilla monticola</i>                                | 245   |
| <i>Alchemilla subcrenata</i>                               | 265   |
| <i>Alchemilla vulgaris</i>                                 | 26467 |
| <i>Alchemilla vulgaris</i> agg.                            | 209   |
| <i>Alchemilla vulgaris</i> auct.                           | 20289 |
| <i>Alchemilla xanthochlora</i>                             | 273   |
| <i>Alisma plantago-aquatica</i> agg.                       | 275   |
| <i>Alisma gramineum</i>                                    | 276   |
| <i>Alisma lanceolatum</i>                                  | 277   |
| <i>Alisma plantago-aquatica</i>                            | 278   |
| <i>Alisma plantago-aquatica</i> agg.                       | 275   |
| <i>Allium scorodoprasum</i>                                | 12756 |
| <i>Allium rotundum</i>                                     | 310   |
| <i>Allium scorodoprasum</i>                                | 12756 |
| <i>Allium scorodoprasum</i> subsp. <i>rotundum</i>         | 20326 |
| <i>Allium senescens</i>                                    | 6583  |
| <i>Allium montanum</i>                                     | 294   |
| <i>Allium senescens</i>                                    | 6583  |
| <i>Allium senescens</i> subsp. <i>montanum</i>             | 20321 |
| <i>Allium senescens</i> var. <i>montanum</i>               | 12712 |
| <i>Alopecurus pratensis</i> agg.                           | 334   |
| <i>Alopecurus pratensis</i>                                | 336   |
| <i>Alopecurus pratensis</i> agg.                           | 334   |
| <i>Alyssum alyssoides</i>                                  | 345   |
| <i>Alyssum alyssoides</i>                                  | 345   |
| <i>Alyssum calycinum</i>                                   | 20351 |
| <i>Alyssum montanum</i>                                    | 350   |
| <i>Alyssum montanum</i>                                    | 350   |
| <i>Alyssum montanum</i> subsp. <i>gmelinii</i>             | 26457 |
| <i>Alyssum montanum</i> subsp. <i>montanum</i>             | 26456 |
| <i>Anagallis arvensis</i>                                  | 393   |
| <i>Anagallis arvensis</i>                                  | 393   |
| <i>Anagallis arvensis</i> subsp. <i>arvensis</i>           | 394   |
| <i>Anemone narcissiflora</i>                               | 434   |
| <i>Anemonastrum narcissiflorum</i>                         | 20423 |
| <i>Anemone narcissiflora</i>                               | 434   |
| <i>Anthoxanthum aristatum</i>                              | 20071 |
| <i>Anthoxanthum aristatum</i>                              | 20071 |
| <i>Anthoxanthum puelii</i>                                 | 466   |
| <i>Anthoxanthum odoratum</i> agg.                          | 463   |
| <i>Anthoxanthum alpinum</i>                                | 464   |
| <i>Anthoxanthum odoratum</i>                               | 465   |
| <i>Anthoxanthum odoratum</i> agg.                          | 463   |
| <i>Anthriscus sylvestris</i> agg.                          | 469   |
| <i>Anthriscus sylvestris</i>                               | 473   |
| <i>Anthriscus sylvestris</i> agg.                          | 469   |
| <i>Anthriscus sylvestris</i> subsp. <i>alpestris</i>       | 20460 |
| <i>Anthriscus sylvestris</i> subsp. <i>sylvestris</i>      | 20463 |
| <i>Anthyllis vulneraria</i>                                | 477   |
| <i>Anthyllis vulneraria</i>                                | 477   |
| <i>Anthyllis vulneraria</i> subsp. <i>carpatica</i>        | 479   |
| <i>Anthyllis vulneraria</i> subsp. <i>pseudovulneraria</i> | 14783 |
| <i>Aphanes inexpectata</i>                                 | 494   |
| <i>Aphanes inexpectata</i>                                 | 494   |
| <i>Aphanes microcarpa</i>                                  | 6554  |
| <i>Aquilegia vulgaris</i> agg.                             | 507   |
| <i>Aquilegia atrata</i>                                    | 508   |



|  |       |
|--|-------|
| <i>Aquilegia vulgaris</i>                                | 510   |
| <i>Arabis bellidifolia</i>                               | 20511 |
| <i>Arabis bellidifolia</i> subsp. <i>bellidifolia</i>    | 20512 |
| <i>Arabis glabra</i>                                     | 520   |
| <i>Arabis glabra</i>                                     | 520   |
| <i>Turritis glabra</i>                                   | 24405 |
| <i>Arabis hirsuta</i> agg.                               | 521   |
| <i>Arabis hirsuta</i>                                    | 523   |
| <i>Arabis nemorensis</i>                                 | 20072 |
| <i>Arctium minus</i>                                     | 13702 |
| <i>Arctium minus</i>                                     | 13702 |
| <i>Arctium minus</i> agg.                                | 547   |
| <i>Lappa communis</i>                                    | 14348 |
| <i>Arenaria serpyllifolia</i> agg.                       | 563   |
| <i>Arenaria serpyllifolia</i>                            | 13703 |
| <i>Arenaria serpyllifolia</i> agg.                       | 563   |
| <i>Armeria maritima</i>                                  | 581   |
| <i>Armeria elongata</i>                                  | 577   |
| <i>Armeria maritima</i>                                  | 581   |
| <i>Armeria maritima</i> agg.                             | 575   |
| <i>Armeria maritima</i> subsp. <i>elongata</i>           | 20584 |
| <i>Armeria maritima</i> var. <i>elongata</i>             | 20590 |
| <i>Armeria vulgaris</i>                                  | 26026 |
| <i>Artemisia campestris</i> agg.                         | 594   |
| <i>Artemisia campestris</i>                              | 596   |
| <i>Artemisia campestris</i> agg.                         | 594   |
| <i>Artemisia campestris</i> subsp. <i>campestris</i>     | 6466  |
| <i>Artemisia vulgaris</i> agg.                           | 616   |
| <i>Artemisia vulgaris</i>                                | 618   |
| <i>Artemisia vulgaris</i> agg.                           | 616   |
| <i>Arum maculatum</i> agg.                               | 622   |
| <i>Arum maculatum</i>                                    | 625   |
| <i>Arum maculatum</i> agg.                               | 622   |
| <i>Asplenium ruta-muraria</i>                            | 674   |
| <i>Asplenium ruta-muraria</i>                            | 674   |
| <i>Asplenium ruta-muraria</i> subsp. <i>ruta-muraria</i> | 676   |
| <i>Aster lanceolatus</i> agg.                            | 15106 |
| <i>Aster lanceolatus</i>                                 | 693   |
| <i>Aster parviflorus</i>                                 | 15085 |
| <i>Atriplex prostrata</i> agg.                           | 20706 |
| <i>Atriplex calotheca</i>                                | 756   |
| <i>Atriplex hastata</i>                                  | 20693 |
| <i>Atriplex hastata</i> agg.                             | 755   |
| <i>Atriplex latifolia</i>                                | 760   |
| <i>Atriplex prostrata</i>                                | 762   |
| <i>Atriplex sagittata</i>                                | 754   |
| <i>Atriplex nitens</i>                                   | 20702 |
| <i>Aurinia saxatilis</i>                                 | 777   |
| <i>Alyssum saxatile</i>                                  | 354   |
| <i>Betonica officinalis</i>                              | 826   |
| <i>Betonica officinalis</i>                              | 826   |
| <i>Stachys officinalis</i>                               | 24165 |
| <i>Betula alba</i> agg.                                  | 99014 |
| <i>Betula pendula</i>                                    | 829   |
| <i>Betula verrucosa</i>                                  | 20786 |
| <i>Betula pubescens</i>                                  | 830   |
| <i>Betula pubescens</i>                                  | 830   |
| <i>Betula pubescens</i> subsp. <i>carpatica</i>          | 6472  |
| <i>Betula pubescens</i> subsp. <i>pubescens</i>          | 6471  |
| <i>Bidens frondosa</i>                                   | 834   |
| <i>Bidens frondosa</i>                                   | 834   |
| <i>Bidens melanocarpa</i>                                | 20788 |
| <i>Bidens tripartita</i>                                 | 836   |

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| <i>Bidens tripartita</i>                           | 836   |
| <i>Bidens tripartita</i> subsp. <i>tripartita</i>  | 838   |
| <i>Biscutella laevigata</i>                        | 844   |
| <i>Biscutella laevigata</i>                        | 844   |
| <i>Biscutella laevigata</i> subsp. <i>kernerii</i> | 6652  |
| <i>Bistorta officinalis</i>                        | 27744 |
| <i>Bistorta officinalis</i>                        | 27744 |
| <i>Persicaria bistorta</i>                         | 23029 |
| <i>Polygonum bistorta</i>                          | 4420  |
| <i>Bistorta vivipara</i>                           | 20801 |
| <i>Bistorta vivipara</i>                           | 20801 |
| <i>Persicaria vivipara</i>                         | 23045 |
| <i>Polygonum viviparum</i>                         | 4437  |
| <i>Bolboschoenus maritimus</i>                     | 852   |
| <i>Bolboschoenus maritimus</i>                     | 852   |
| <i>Schoenoplectus maritimus</i>                    | 23820 |
| <i>Bothriochloa ischaemum</i>                      | 854   |
| <i>Andropogon ischaemum</i>                        | 20417 |
| <i>Bothriochloa ischaemum</i>                      | 854   |
| <i>Dichanthium ischaemum</i>                       | 21538 |
| <i>Brachypodium pinnatum</i> agg.                  | 862   |
| <i>Brachypodium pinnatum</i>                       | 863   |
| <i>Brachypodium pinnatum</i> agg.                  | 862   |
| <i>Brachypodium rupestre</i>                       | 864   |
| <i>Bromus arvensis</i>                             | 883   |
| <i>Bromus arvensis</i>                             | 883   |
| <i>Bromus arvensis</i> subsp. <i>arvensis</i>      | 7191  |
| <i>Bromus hordeaceus</i> agg.                      | 895   |
| <i>Bromus hordeaceus</i>                           | 896   |
| <i>Bromus hordeaceus</i> agg.                      | 895   |
| <i>Bromus hordeaceus</i> subsp. <i>hordeaceus</i>  | 897   |
| <i>Bromus mollis</i>                               | 901   |
| <i>Bromus racemosus</i> agg.                       | 908   |
| <i>Bromus commutatus</i>                           | 909   |
| <i>Bromus racemosus</i>                            | 910   |
| <i>Bromus ramosus</i> agg.                         | 911   |
| <i>Bromus benekenii</i>                            | 912   |
| <i>Bromus ramosus</i>                              | 913   |
| <i>Bromus ramosus</i> agg.                         | 911   |
| <i>Callitriche palustris</i> agg.                  | 999   |
| <i>Callitriche obtusangula</i>                     | 1003  |
| <i>Callitriche palustris</i>                       | 1004  |
| <i>Callitriche palustris</i> agg.                  | 999   |
| <i>Callitriche stagnalis</i>                       | 1006  |
| <i>Campanula rotundifolia</i> agg.                 | 1057  |
| <i>Campanula rotundifolia</i>                      | 1072  |
| <i>Campanula rotundifolia</i> agg.                 | 1057  |
| <i>Campanula scheuchzeri</i>                       | 1073  |
| <i>Cardamine bulbifera</i>                         | 20944 |
| <i>Cardamine bulbifera</i>                         | 20944 |
| <i>Dentaria bulbifera</i>                          | 1896  |
| <i>Cardamine heptaphylla</i>                       | 20951 |
| <i>Dentaria heptaphyllos</i>                       | 91015 |
| <i>Cardamine pratensis</i> agg.                    | 1105  |
| <i>Cardamine dentata</i>                           | 20945 |
| <i>Cardamine palustris</i>                         | 1109  |
| <i>Cardamine pratensis</i>                         | 15133 |
| <i>Cardamine pratensis</i> agg.                    | 1105  |
| <i>Cardaminopsis arenosa</i>                       | 1114  |
| <i>Arabis arenosa</i>                              | 20509 |
| <i>Cardaminopsis arenosa</i>                       | 1114  |
| <i>Cardaminopsis halleri</i>                       | 1116  |
| <i>Arabis halleri</i>                              | 20518 |

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| Cardaminopsis halleri          | 1116  |
| Cardaminopsis petraea          | 1117  |
| Arabis hispida                 | 20526 |
| Carduus nutans agg.            | 1140  |
| Carduus nutans                 | 1143  |
| Carduus nutans agg.            | 1140  |
| Carex acuta agg.               | 26775 |
| Carex acuta                    | 20989 |
| Carex acuta subsp. tricostata  | 6685  |
| Carex gracilis                 | 1230  |
| Carex arenaria agg.            | 1159  |
| Carex arenaria                 | 1160  |
| Carex ligerica                 | 1161  |
| Carex pseudobrizzoides         | 1162  |
| Carex atrata agg.              | 1164  |
| Carex atrata                   | 14018 |
| Carex atrata agg.              | 1164  |
| Carex elata                    | 1204  |
| Carex elata                    | 1204  |
| Carex elata subsp. elata       | 1205  |
| Carex flacca                   | 1216  |
| Carex flacca                   | 1216  |
| Carex glauca                   | 21026 |
| Carex flava agg.               | 1219  |
| Carex demissa                  | 20011 |
| Carex flava                    | 1220  |
| Carex flava agg.               | 1219  |
| Carex flava var. oederi        | 25010 |
| Carex lepidocarpa              | 1222  |
| Carex oederi                   | 1223  |
| Carex serotina                 | 21070 |
| Carex tumidicarpa              | 1225  |
| Carex viridula                 | 6693  |
| Carex muricata agg.            | 1249  |
| Carex divulsa                  | 1250  |
| Carex leersiana                | 1251  |
| Carex muricata                 | 6687  |
| Carex muricata agg.            | 1249  |
| Carex muricata subsp. muricata | 6689  |
| Carex pairae                   | 1252  |
| Carex spicata                  | 1253  |
| Carex nigra agg.               | 1254  |
| Carex fusca                    | 21024 |
| Carex nigra                    | 1256  |
| Carex nigra agg.               | 1254  |
| Carex ornithopoda agg.         | 1262  |
| Carex ornithopoda              | 1263  |
| Carex ornithopoda agg.         | 1262  |
| Carex ovalis                   | 21055 |
| Carex leporina                 | 1240  |
| Carex ovalis                   | 21055 |
| Carex vulpina agg.             | 1301  |
| Carex otrubae                  | 1302  |
| Carex vulpina                  | 1303  |
| Carex vulpina agg.             | 1301  |
| Carex × elytroides             | 10122 |
| Carex × elytroides             | 10122 |
| Carex acuta × nigra            | 90526 |
| Carex × figertii               | 90596 |
| Carex davalliana × dioica      | 90549 |
| Carex × xanthocarpa            | 10137 |
| Carex flava × hostiana         | 90562 |
| Carlina acaulis                | 1306  |

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| <i>Carlina acaulis</i>                              | 1306  |
| <i>Carlina acaulis</i> subsp. <i>simplex</i>        | 1308  |
| <i>Carlina vulgaris</i>                             | 1312  |
| <i>Carlina vulgaris</i>                             | 1315  |
| <i>Carlina vulgaris</i> subsp. <i>vulgaris</i>      | 21094 |
| <i>Castanea sativa</i>                              | 1323  |
| <i>Castanea sativa</i>                              | 1323  |
| <i>Castanea vesca</i>                               | 21097 |
| <i>Caucalis platycarpus</i>                         | 1329  |
| <i>Caucalis lappula</i>                             | 21108 |
| <i>Caucalis platycarpus</i>                         | 1329  |
| <i>Centaurea jacea</i>                              | 1347  |
| <i>Centaurea angustifolia</i>                       | 21122 |
| <i>Centaurea jacea</i>                              | 1347  |
| <i>Centaurea jacea</i> agg.                         | 24981 |
| <i>Centaurea jacea</i> subsp. <i>amara</i>          | 21132 |
| <i>Centaurea jacea</i> subsp. <i>angustifolia</i>   | 1348  |
| <i>Centaurea nigra</i>                              | 26577 |
| <i>Centaurea nemoralis</i>                          | 21138 |
| <i>Centaurea nigra</i>                              | 26577 |
| <i>Centaurea nigra</i> subsp. <i>nemoralis</i>      | 1370  |
| <i>Centaurea scabiosa</i>                           | 1390  |
| <i>Centaurea scabiosa</i>                           | 1390  |
| <i>Centaurea scabiosa</i> subsp. <i>scabiosa</i>    | 1397  |
| <i>Centaurea stoebe</i>                             | 25004 |
| <i>Centaurea maculosa</i> subsp. <i>rhenana</i>     | 21134 |
| <i>Centaurea rhenana</i>                            | 21146 |
| <i>Centaurea stoebe</i>                             | 25004 |
| <i>Centaureum erythraea</i>                         | 1406  |
| <i>Centaureum erythraea</i>                         | 1406  |
| <i>Centaureum erythraea</i> subsp. <i>erythraea</i> | 1407  |
| <i>Centaureum umbellatum</i>                        | 21156 |
| <i>Centaureum littorale</i>                         | 1409  |
| <i>Centaureum littorale</i>                         | 1409  |
| <i>Centaureum minus</i>                             | 7104  |
| <i>Cerastium arvense</i>                            | 1431  |
| <i>Cerastium arvense</i>                            | 1431  |
| <i>Cerastium arvense</i> subsp. <i>arvense</i>      | 1432  |
| <i>Cerastium fontanum</i> agg.                      | 1449  |
| <i>Cerastium caespitosum</i>                        | 21178 |
| <i>Cerastium fontanum</i>                           | 1450  |
| <i>Cerastium fontanum</i> agg.                      | 1449  |
| <i>Cerastium fontanum</i> subsp. <i>triviale</i>    | 21187 |
| <i>Cerastium holosteoides</i>                       | 1451  |
| <i>Cerastium triviale</i>                           | 25269 |
| <i>Cerastium vulgare</i>                            | 21213 |
| <i>Cerastium pumilum</i> agg.                       | 1460  |
| <i>Cerastium glutinosum</i>                         | 1461  |
| <i>Cerastium pallens</i>                            | 21198 |
| <i>Cerastium pumilum</i>                            | 1462  |
| <i>Cerastium pumilum</i> agg.                       | 1460  |
| <i>Ceratocarpus claviculata</i>                     | 21221 |
| <i>Ceratocarpus claviculata</i>                     | 21221 |
| <i>Corydalis claviculata</i>                        | 1670  |
| <i>Cerintho glabra</i>                              | 1473  |
| <i>Cerintho alpina</i>                              | 21227 |
| <i>Chaerophyllum hirsutum</i>                       | 26947 |
| <i>Chaerophyllum hirsutum</i>                       | 26947 |
| <i>Chaerophyllum hirsutum</i> agg.                  | 1490  |
| <i>Chaerophyllum villarsii</i>                      | 1493  |
| <i>Chamaecytisus ratisbonensis</i>                  | 1504  |
| <i>Chamaecytisus ratisbonensis</i>                  | 1504  |
| <i>Cytisus ratisbonensis</i>                        | 21484 |

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| <i>Chamaecytisus supinus</i>                            | 1506  |
| <i>Chamaecytisus supinus</i>                            | 1506  |
| <i>Cytisus supinus</i>                                  | 21486 |
| <i>Chamaespartium sagittale</i>                         | 1509  |
| <i>Chamaespartium sagittale</i>                         | 1509  |
| <i>Genista sagittalis</i>                               | 21992 |
| <i>Genistella sagittalis</i>                            | 2615  |
| <i>Chenopodium album</i> agg.                           | 1514  |
| <i>Chenopodium album</i>                                | 1515  |
| <i>Chenopodium album</i> agg.                           | 1514  |
| <i>Chenopodium strictum</i> subsp. <i>striatifforme</i> | 6482  |
| <i>Cirsium acaule</i>                                   | 1556  |
| <i>Cirsium acaule</i>                                   | 1556  |
| <i>Cirsium acaulon</i>                                  | 21327 |
| <i>Cirsium heterophyllum</i>                            | 1569  |
| <i>Cirsium helenioides</i>                              | 21329 |
| <i>Cirsium heterophyllum</i>                            | 1569  |
| <i>Cirsium vulgare</i>                                  | 1579  |
| <i>Cirsium lanceolatum</i>                              | 21330 |
| <i>Cirsium vulgare</i>                                  | 1579  |
| <i>Cirsium</i> × <i>rigens</i>                          | 26068 |
| <i>Cirsium acaule</i> × <i>oleraceum</i>                | 90817 |
| <i>Clinopodium vulgare</i>                              | 1593  |
| <i>Calamintha clinopodium</i>                           | 978   |
| <i>Consolida regalis</i>                                | 1627  |
| <i>Consolida regalis</i>                                | 1627  |
| <i>Delphinium consolida</i>                             | 21510 |
| <i>Convolvulus</i>                                      | 60816 |
| <i>Convolvulus</i>                                      | 60816 |
| <i>Convolvulus arvensis</i>                             | 1632  |
| <i>Conyza canadensis</i>                                | 1638  |
| <i>Conyza canadensis</i>                                | 1638  |
| <i>Erigeron canadensis</i>                              | 21687 |
| <i>Crataegus</i>  | 61165 |
| <i>Crataegus curvisepala</i>                            | 1697  |
| <i>Crataegus laevigata</i> agg.                         | 1701  |
| <i>Crataegus laevigata</i>                              | 1701  |
| <i>Crataegus lindmanii</i>                              | 1699  |
| <i>Crataegus monogyna</i>                               | 1707  |
| <i>Crataegus monogyna</i> subsp. <i>monogyna</i>        | 1708  |
| <i>Crataegus monogyna</i> subsp. <i>nordica</i>         | 1709  |
| <i>Crataegus monogyna</i> var. <i>monogyna</i>          | 90937 |
| <i>Crataegus oxyacantha</i>                             | 21400 |
| <i>Crataegus rhipidophylla</i>                          | 26677 |
| <i>Crataegus</i> × <i>macrocarpa</i>                    | 1705  |
| <i>Crataegus</i> × <i>media</i>                         | 50021 |
| <i>Crataegus calycina</i>                               | 6733  |
| <i>Crepis bocconi</i>                                   | 21408 |
| <i>Crepis pontana</i>                                   | 1735  |
| <i>Cruciata laevipes</i>                                | 1766  |
| <i>Cruciata laevipes</i>                                | 1766  |
| <i>Galium cruciata</i>                                  | 21963 |
| <i>Cystopteris fragilis</i> agg.                        | 1825  |
| <i>Cystopteris alpina</i>                               | 21473 |
| <i>Cystopteris fragilis</i>                             | 1827  |
| <i>Cytisus nigricans</i>                                | 21483 |
| <i>Cytisus nigricans</i>                                | 21483 |
| <i>Lembotropis nigricans</i>                            | 3333  |
| <i>Cytisus scoparius</i>                                | 1837  |
| <i>Cytisus scoparius</i>                                | 1837  |
| <i>Sarothamnus scoparius</i>                            | 5245  |
| <i>Dactylis glomerata</i> agg.                          | 1842  |
| <i>Dactylis</i>   | 397   |

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| <i>Dactylis aschersoniana</i>                      | 21487 |
| <i>Dactylis glomerata</i>                          | 1843  |
| <i>Dactylis glomerata</i> agg.                     | 1842  |
| <i>Dactylis glomerata</i> subsp. <i>glomerata</i>  | 13464 |
| <i>Dactylis polygama</i>                           | 1846  |
| <i>Dactylorhiza maculata</i> agg.                  | 1852  |
| <i>Dactylorhiza fuchsii</i>                        | 1853  |
| <i>Dactylorhiza fuchsii</i> × <i>maculata</i>      | 90986 |
| <i>Dactylorhiza maculata</i>                       | 1857  |
| <i>Dactylorhiza maculata</i> agg.                  | 1852  |
| <i>Dactylorhiza majalis</i> agg.                   | 1861  |
| <i>Dactylorhiza majalis</i>                        | 1862  |
| <i>Dactylorhiza majalis</i> agg.                   | 1861  |
| <i>Dactylorhiza majalis</i> subsp. <i>majalis</i>  | 1866  |
| <i>Dactylorhiza traunsteineri</i>                  | 1871  |
| <i>Dactylorhiza</i> × <i>carnea</i>                | 13760 |
| <i>Dactylorhiza maculata</i> × <i>incarnata</i>    | 90995 |
| <i>Danthonia decumbens</i>                         | 1874  |
| <i>Danthonia decumbens</i>                         | 1874  |
| <i>Danthonia decumbens</i> subsp. <i>decumbens</i> | 1876  |
| <i>Sieglingia decumbens</i>                        | 24019 |
| <i>Daucus carota</i>                               | 1886  |
| <i>Daucus</i>                                      | 61271 |
| <i>Daucus carota</i>                               | 1886  |
| <i>Daucus carota</i> subsp. <i>carota</i>          | 6753  |
| <i>Deschampsia cespitosa</i> agg.                  | 1903  |
| <i>Deschampsia cespitosa</i>                       | 1904  |
| <i>Deschampsia cespitosa</i> agg.                  | 1903  |
| <i>Deschampsia flexuosa</i>                        | 20725 |
| <i>Aira flexuosa</i>                               | 20226 |
| <i>Avenella flexuosa</i>                           | 783   |
| <i>Deschampsia flexuosa</i>                        | 20725 |
| <i>Dianthus gratianopolitanus</i>                  | 1934  |
| <i>Dianthus caesius</i>                            | 21522 |
| <i>Dianthus gratianopolitanus</i>                  | 1934  |
| <i>Dianthus superbus</i>                           | 1949  |
| <i>Dianthus superbus</i>                           | 1949  |
| <i>Dianthus superbus</i> subsp. <i>superbus</i>    | 1952  |
| <i>Digitalis grandiflora</i>                       | 1960  |
| <i>Digitalis ambigua</i>                           | 21540 |
| <i>Dipsacus fullonum</i>                           | 1980  |
| <i>Dipsacus fullonum</i>                           | 1980  |
| <i>Dipsacus sylvestris</i>                         | 20021 |
| <i>Draba aizoides</i> agg.                         | 2000  |
| <i>Draba aizoides</i>                              | 2001  |
| <i>Draba aizoides</i> agg.                         | 2000  |
| <i>Drosera longifolia</i>                          | 21588 |
| <i>Drosera anglica</i>                             | 2025  |
| <i>Drosera longifolia</i>                          | 21588 |
| <i>Dryopteris carthusiana</i> agg.                 | 2030  |
| <i>Dryopteris</i> × <i>deweveri</i>                | 50029 |
| <i>Dryopteris carthusiana</i>                      | 2032  |
| <i>Dryopteris carthusiana</i> × <i>dilatata</i>    | 91118 |
| <i>Dryopteris carthusiana</i> agg.                 | 2030  |
| <i>Dryopteris dilatata</i>                         | 2033  |
| <i>Dryopteris expansa</i>                          | 2031  |
| <i>Dryopteris spinulosa</i>                        | 21604 |
| <i>Dryopteris filix-mas</i> agg. s. l.             | 94728 |
| <i>Dryopteris affinis</i>                          | 2038  |
| <i>Dryopteris filix-mas</i>                        | 2037  |
| <i>Dryopteris filix-mas</i> agg.                   | 2035  |
| <i>Eleocharis palustris</i> agg.                   | 2087  |
| <i>Eleocharis palustris</i>                        | 2091  |

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| Eleocharis palustris agg.              | 2087  |
| Eleocharis uniglumis                   | 2094  |
| Scirpus palustris                      | 23856 |
| Elymus arenosus                        | 27779 |
| Elymus repens subsp. arenosus          | 6543  |
| Elymus athericus                       | 27782 |
| Elymus pungens                         | 27905 |
| Elymus caninus                         | 20145 |
| Agropyron caninum                      | 103   |
| Elymus caninus                         | 20145 |
| Roegneria canina                       | 23598 |
| Elymus repens                          | 27778 |
| Agropyron repens                       | 27914 |
| Agropyron repens subsp. caesium        | 6541  |
| Elymus repens                          | 27778 |
| Elymus repens subsp. repens            | 27781 |
| Elytrigia repens                       | 21639 |
| Triticum repens                        | 24393 |
| Empetrum nigrum agg.                   | 2103  |
| Empetrum nigrum                        | 2105  |
| Empetrum nigrum agg.                   | 2103  |
| Epilobium angustifolium                | 2113  |
| Chamaenerion angustifolium             | 21237 |
| Epilobium angustifolium                | 2113  |
| Epilobium ciliatum                     | 21642 |
| Epilobium adenocaulon                  | 2109  |
| Epilobium ciliatum                     | 21642 |
| Epilobium tetragonum                   | 2126  |
| Epilobium tetragonum                   | 2126  |
| Epilobium tetragonum subsp. lamyi      | 2127  |
| Epilobium tetragonum subsp. tetragonum | 2128  |
| Epipactis atrorubens                   | 2130  |
| Epipactis atropurpurea                 | 21653 |
| Epipactis atrorubens                   | 2130  |
| Epipactis rubiginosa                   | 21664 |
| Epipactis helleborine agg.             | 2131  |
| Epipactis helleborine                  | 2134  |
| Epipactis latifolia                    | 21660 |
| Equisetum fluviatile                   | 2143  |
| Equisetum fluviatile                   | 2143  |
| Equisetum limosum                      | 21674 |
| Equisetum × mildeanum                  | 91305 |
| Equisetum pratense × sylvaticum        | 91302 |
| Erica carnea                           | 21680 |
| Erica carnea                           | 21680 |
| Erica herbacea                         | 2163  |
| Erigeron acris                         | 2167  |
| Erigeron acris                         | 2167  |
| Erigeron acris subsp. acris            | 2168  |
| Erigeron annuus                        | 2178  |
| Erigeron annuus                        | 2178  |
| Erigeron strigosus                     | 21695 |
| Erigeron glabratus                     | 21689 |
| Erigeron glabratus                     | 21689 |
| Erigeron polymorphus                   | 2186  |
| Erodium cicutarium agg.                | 2197  |
| Erodium cicutarium                     | 2199  |
| Erodium cicutarium agg.                | 2197  |
| Erophila verna                         | 12356 |
| Draba verna                            | 21586 |
| Erophila verna                         | 12356 |
| Erophila verna agg.                    | 2205  |
| Erophila verna subsp. verna            | 21715 |

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| <i>Erysimum maschallianum</i>                          | 2229  |
| <i>Erysimum durum</i>                                  | 21726 |
| <i>Erysimum odoratum</i>                               | 2234  |
| <i>Erysimum erysimoides</i>                            | 21727 |
| <i>Erysimum odoratum</i>                               | 2234  |
| <i>Euphorbia verrucosa</i>                             | 2309  |
| <i>Euphorbia brittingeri</i>                           | 21740 |
| <i>Euphorbia verrucosa</i>                             | 2309  |
| <i>Euphrasia officinalis</i>                           | 13816 |
| <i>Euphrasia officinalis</i>                           | 13816 |
| <i>Euphrasia officinalis</i> subsp. <i>rostkoviana</i> | 26254 |
| <i>Euphrasia rostkoviana</i>                           | 2332  |
| <i>Euphrasia rostkoviana</i> agg.                      | 2329  |
| <i>Fallopia convolvulus</i>                            | 2359  |
| <i>Fallopia convolvulus</i>                            | 2359  |
| <i>Polygonum convolvulus</i>                           | 23228 |
| <i>Festuca brevipila</i>                               | 26591 |
| <i>Festuca brevipila</i>                               | 26591 |
| <i>Festuca duriuscula</i>                              | 21820 |
| <i>Festuca trachyphylla</i>                            | 2406  |
| <i>Festuca filiformis</i>                              | 21824 |
| <i>Festuca capillata</i>                               | 21813 |
| <i>Festuca filiformis</i>                              | 21824 |
| <i>Festuca tenuifolia</i>                              | 2405  |
| <i>Festuca ovina</i> agg.                              | 2385  |
| <i>Festuca guestfalica</i> et <i>ovina</i>             | 91404 |
| <i>Festuca guestfalica</i>                             | 6483  |
| <i>Festuca lemanii</i>                                 | 94730 |
| <i>Festuca ovina</i>                                   | 2396  |
| <i>Festuca ovina</i> s. l.                             | 91415 |
| <i>Festuca ovina</i> subsp. <i>ovina</i>               | 91418 |
| <i>Festuca ovina</i> var. <i>firmula</i>               | 21845 |
| <i>Festuca ovina</i> agg.                              | 2385  |
| <i>Festuca ovina</i> subsp. <i>glauca</i>              | 10352 |
| <i>Festuca pallens</i>                                 | 2397  |
| <i>Festuca cinerea</i>                                 | 2387  |
| <i>Festuca glauca</i>                                  | 2392  |
| <i>Festuca glaucina</i>                                | 91400 |
| <i>Festuca pallens</i>                                 | 2397  |
| <i>Festuca pallens</i> * <i>glaucina</i>               | 91420 |
| <i>Festuca pallens</i> subsp. <i>pallens</i>           | 6792  |
| <i>Festuca quadriflora</i>                             | 21852 |
| <i>Festuca pumila</i>                                  | 2416  |
| <i>Festuca quadriflora</i>                             | 21852 |
| <i>Festuca rubra</i> agg.                              | 2417  |
| <i>Festuca heteromalla</i>                             | 7346  |
| <i>Festuca nigrescens</i>                              | 2420  |
| <i>Festuca nigrescens</i> subsp. <i>nigrescens</i>     | 91414 |
| <i>Festuca rubra</i>                                   | 2421  |
| <i>Festuca rubra</i> agg.                              | 2417  |
| <i>Festuca rubra</i> subsp. <i>commutata</i>           | 21856 |
| <i>Festuca rubra</i> subsp. <i>fallax</i>              | 13510 |
| <i>Festuca rubra</i> subsp. <i>rubra</i>               | 2425  |
| <i>Festuca rubra</i> var. <i>genuina</i>               | 21863 |
| <i>Festuca trichophylla</i>                            | 2426  |
| <i>Festuca rupicola</i>                                | 2402  |
| <i>Festuca rupicola</i>                                | 2402  |
| <i>Festuca sulcata</i>                                 | 27166 |
| <i>Festuca valesiaca</i> subsp. <i>sulcata</i>         | 10354 |
| <i>Festuca valesiaca</i>                               | 13712 |
| <i>Festuca pulchra</i>                                 | 13523 |
| <i>Festuca valesiaca</i>                               | 13712 |
| <i>Festuca violacea</i> agg.                           | 2441  |



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| <i>Festuca norica</i>                          | 2443  |
| <i>Festuca violacea</i> agg.                   | 2441  |
| <i>Filipendula vulgaris</i>                    | 2462  |
| <i>Filipendula hexapetala</i>                  | 21900 |
| <i>Filipendula vulgaris</i>                    | 2462  |
| <i>Frangula alnus</i>                          | 2472  |
| <i>Frangula alnus</i>                          | 2472  |
| <i>Rhamnus frangula</i>                        | 23535 |
| <i>Fumana procumbens</i>                       | 2486  |
| <i>Fumana procumbens</i>                       | 2486  |
| <i>Fumana vulgaris</i>                         | 21921 |
| <i>Galeopsis ladanum</i> agg.                  | 2520  |
| <i>Galeopsis angustifolia</i>                  | 2521  |
| <i>Galeopsis ladanum</i>                       | 2522  |
| <i>Galeopsis tetrahit</i> agg.                 | 2526  |
| <i>Galeopsis bifida</i>                        | 2527  |
| <i>Galeopsis tetrahit</i>                      | 2528  |
| <i>Galeopsis tetrahit</i> agg.                 | 2526  |
| <i>Galium aparine</i> agg.                     | 2532  |
| <i>Galium aparine</i>                          | 2533  |
| <i>Galium aparine</i> agg.                     | 2532  |
| <i>Galium spurium</i>                          | 2534  |
| <i>Galium glaucum</i>                          | 2542  |
| <i>Asperula glauca</i>                         | 20637 |
| <i>Galium glaucum</i>                          | 2542  |
| <i>Galium mollugo</i> agg.                     | 2548  |
| <i>Galium album</i>                            | 2549  |
| <i>Galium album</i> subsp. <i>album</i>        | 2550  |
| <i>Galium mollugo</i>                          | 2555  |
| <i>Galium mollugo</i> agg.                     | 2548  |
| <i>Galium palustre</i>                         | 2564  |
| <i>Galium elongatum</i>                        | 2563  |
| <i>Galium palustre</i>                         | 2564  |
| <i>Galium palustre</i> agg.                    | 2561  |
| <i>Galium palustre</i> subsp. <i>elongatum</i> | 21974 |
| <i>Galium palustre</i> subsp. <i>palustre</i>  | 21975 |
| <i>Galium pusillum</i> agg.                    | 2569  |
| <i>Galium anisophyllum</i>                     | 2570  |
| <i>Galium pumilum</i>                          | 2572  |
| <i>Galium pusillum</i> agg.                    | 2569  |
| <i>Galium valdepilosum</i>                     | 2577  |
| <i>Galium rotundifolium</i>                    | 2579  |
| <i>Galium scabrum</i>                          | 21982 |
| <i>Galium saxatile</i>                         | 2585  |
| <i>Galium hircynicum</i>                       | 2543  |
| <i>Galium saxatile</i>                         | 2585  |
| <i>Galium verum</i> agg. s. l.                 | 94733 |
| <i>Galium</i> × <i>pomeranicum</i>             | 2599  |
| <i>Galium verum</i>                            | 2600  |
| <i>Galium verum</i> agg.                       | 2598  |
| <i>Galium verum</i> subsp. <i>verum</i>        | 24929 |
| <i>Galium wirtgenii</i>                        | 2601  |
| <i>Gentiana acaulis</i> agg.                   | 91530 |
| <i>Gentiana acaulis</i>                        | 2616  |
| <i>Gentiana clusii</i>                         | 2624  |
| <i>Gentianella ciliata</i>                     | 2656  |
| <i>Gentiana ciliata</i>                        | 22041 |
| <i>Gentianella ciliata</i>                     | 2656  |
| <i>Gentianopsis ciliata</i>                    | 22040 |
| <i>Gentianella germanica</i> agg.              | 2657  |
| <i>Gentiana germanica</i>                      | 22044 |
| <i>Gentianella aspera</i>                      | 2659  |
| <i>Gentianella germanica</i>                   | 2662  |

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| <i>Gentianella germanica</i> agg.                      | 2657  |
| <i>Gentianella germanica</i> subsp. <i>germanica</i>   | 7352  |
| <i>Gentianella lutescens</i>                           | 2665  |
| <i>Geum</i> × <i>intermedium</i>                       | 50040 |
| <i>Geum rivale</i> × <i>urbanum</i>                    | 91547 |
| <i>Glechoma hederacea</i> agg.                         | 2710  |
| <i>Glechoma hederacea</i>                              | 2711  |
| <i>Glechoma hederacea</i> agg.                         | 2710  |
| <i>Globularia punctata</i>                             | 2718  |
| <i>Globularia bisnagarica</i>                          | 2718  |
| <i>Globularia elongata</i>                             | 22079 |
| <i>Globularia punctata</i>                             | 2718  |
| <i>Globularia vulgaris</i>                             | 26117 |
| <i>Globularia willkommii</i>                           | 22080 |
| <i>Glyceria fluitans</i> agg.                          | 2719  |
| <i>Glyceria declinata</i>                              | 2720  |
| <i>Glyceria fluitans</i>                               | 2721  |
| <i>Glyceria fluitans</i> agg.                          | 2719  |
| <i>Glyceria notata</i>                                 | 26260 |
| <i>Helianthemum nummularium</i>                        | 26596 |
| <i>Helianthemum nummularium</i>                        | 26596 |
| <i>Helianthemum nummularium</i> agg.                   | 2774  |
| <i>Helianthemum nummularium</i> subsp. <i>obscurum</i> | 22127 |
| <i>Helianthemum nummularium</i> subsp. <i>ovatum</i>   | 22128 |
| <i>Helianthemum ovatum</i>                             | 2780  |
| <i>Helictotrichon pratense</i>                         | 20728 |
| <i>Avena pratensis</i>                                 | 20717 |
| <i>Avenochloa pratensis</i>                            | 788   |
| <i>Avenula pratensis</i>                               | 20732 |
| <i>Helictotrichon pratense</i>                         | 20728 |
| <i>Helictotrichon pubescens</i>                        | 20729 |
| <i>Avena pubescens</i>                                 | 20718 |
| <i>Avenochloa pubescens</i>                            | 789   |
| <i>Avenula pubescens</i>                               | 20733 |
| <i>Helictotrichon pubescens</i>                        | 20729 |
| <i>Helictotrichon versicolor</i>                       | 20730 |
| <i>Avenula versicolor</i>                              | 20734 |
| <i>Hepatica nobilis</i>                                | 2815  |
| <i>Anemone hepatica</i>                                | 20422 |
| <i>Hepatica nobilis</i>                                | 2815  |
| <i>Hepatica triloba</i>                                | 10391 |
| <i>Herniaria glabra</i>                                | 2832  |
| <i>Herniaria glabra</i>                                | 2832  |
| <i>Herniaria glabra</i> subsp. <i>glabra</i>           | 2833  |
| <i>Hieracium angustifolium</i>                         | 25621 |
| <i>Hieracium glaciale</i>                              | 2885  |
| <i>Hieracium caespitosum</i>                           | 2866  |
| <i>Pilosella caespitosa</i>                            | 12173 |
| <i>Hieracium lactucella</i>                            | 2899  |
| <i>Hieracium auricula</i>                              | 2857  |
| <i>Hieracium lactucella</i>                            | 2899  |
| <i>Pilosella lactucella</i>                            | 12147 |
| <i>Hieracium murorum</i>                               | 25659 |
| <i>Hieracium murorum</i>                               | 25659 |
| <i>Hieracium sylvaticum</i>                            | 2942  |
| <i>Hieracium pilosella</i>                             | 2923  |
| <i>Hieracium pilosella</i>                             | 2923  |
| <i>Pilosella officinarum</i>                           | 14992 |
| <i>Hieracium piloselloides</i>                         | 2924  |
| <i>Hieracium piloselloides</i>                         | 2924  |
| <i>Pilosella piloselloides</i>                         | 12226 |
| <i>Hieracium rothianum</i>                             | 25654 |
| <i>Hieracium setigerum</i>                             | 12219 |

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| Hieracium subramosum                      | 10562 |
| depr. Hieracium subramosum                | 94848 |
| Hippocrepis emerus                        | 21379 |
| Coronilla emerus                          | 1655  |
| Hornungia petraea                         | 2993  |
| Hornungia petraea                         | 2993  |
| Hutchinsia petraea                        | 22188 |
| Hypericum maculatum agg.                  | 3027  |
| Hypericum × desetangsii                   | 3029  |
| Hypericum maculatum                       | 20046 |
| Hypericum maculatum agg.                  | 3027  |
| Hypericum maculatum subsp. maculatum      | 20047 |
| Hypericum perforatum                      | 3036  |
| Hypericum perforatum                      | 3036  |
| Hypericum perforatum subsp. angustifolium | 22208 |
| Hypericum tetrapterum                     | 3042  |
| Hypericum quadrangulum                    | 22214 |
| Hypericum tetrapterum                     | 3042  |
| Inula conyzae                             | 22227 |
| Inula conyza                              | 3069  |
| Inula conyzae                             | 22227 |
| Jasione laevis                            | 3117  |
| Jasione perennis                          | 22240 |
| Juncus alpinus                            | 22243 |
| Juncus alpinoarticulatus                  | 91853 |
| Juncus alpinus                            | 22243 |
| Juncus articulatus                        | 3136  |
| Juncus articulatus                        | 3136  |
| Juncus supinus                            | 22278 |
| Juncus bufonius agg.                      | 3140  |
| Juncus bufonius                           | 3141  |
| Juncus bufonius agg.                      | 3140  |
| Juncus compressus agg.                    | 3147  |
| Juncus compressus                         | 3148  |
| Juncus gerardii                           | 3149  |
| Juncus trifidus                           | 26603 |
| Juncus monanthos                          | 3165  |
| Juncus trifidus subsp. monanthos          | 22281 |
| Juniperus communis                        | 3168  |
| Juniperus communis                        | 3168  |
| Juniperus communis subsp. communis        | 3170  |
| Kobresia myosuroides                      | 22299 |
| Elyna myosuroides                         | 2102  |
| Kobresia myosuroides                      | 22299 |
| Koeleria pyramidata agg.                  | 3233  |
| Koeleria                                  | 61398 |
| Koeleria cristata                         | 22305 |
| Koeleria gracilis                         | 22312 |
| Koeleria macrantha                        | 3235  |
| Koeleria pyramidata                       | 3236  |
| Koeleria pyramidata agg.                  | 3233  |
| Lamium galeobdolon agg.                   | 22337 |
| Galeobdolon argentatum                    | 21942 |
| Galeobdolon luteum                        | 20026 |
| Galeobdolon luteum agg.                   | 91498 |
| Galeobdolon montanum                      | 20027 |
| Lamiastrum galeobdolon                    | 3256  |
| Lamiastrum montanum                       | 3257  |
| Lamium argentatum                         | 24905 |
| Lamium galeobdolon                        | 22338 |
| Lamium galeobdolon agg.                   | 22337 |
| Lamium montanum                           | 22340 |
| Larix decidua                             | 3272  |

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| <i>Larix decidua</i>                                    | 3272  |
| <i>Larix europaea</i>                                   | 10606 |
| <i>Lathyrus linifolius</i>                              | 3301  |
| <i>Lathyrus linifolius</i>                              | 3301  |
| <i>Lathyrus montanus</i>                                | 22390 |
| <i>Ledum palustre</i>                                   | 3328  |
| <i>Ledum palustre</i>                                   | 3328  |
| <i>Rhododendron tomentosum</i>                          | 28144 |
| <i>Leontodon helveticus</i>                             | 3346  |
| <i>Leontodon helveticus</i>                             | 3346  |
| <i>Leontodon pyrenaicus</i> subsp. <i>helveticus</i>    | 7365  |
| <i>Leontodon hispidus</i>                               | 3347  |
| <i>Leontodon hastilis</i>                               | 25306 |
| <i>Leontodon hispidus</i>                               | 3347  |
| <i>Leontodon hispidus</i> subsp. <i>hastilis</i>        | 22413 |
| <i>Leontodon hispidus</i> subsp. <i>hispidus</i>        | 6837  |
| <i>Leontodon saxatilis</i>                              | 3354  |
| <i>Leontodon saxatilis</i>                              | 3354  |
| <i>Leontodon taraxacoides</i>                           | 22424 |
| <i>Leucanthemum atratum</i> agg.                        | 3375  |
| <i>Leucanthemum atratum</i> agg.                        | 3375  |
| <i>Leucanthemum halleri</i>                             | 3378  |
| <i>Leucanthemum vulgare</i> agg.                        | 3381  |
| <i>Chrysanthemum leucanthemum</i>                       | 21299 |
| <i>Leucanthemum ircutianum</i>                          | 3384  |
| <i>Leucanthemum maximum</i>                             | 3386  |
| <i>Leucanthemum vulgare</i>                             | 3387  |
| <i>Leucanthemum vulgare</i> agg.                        | 3381  |
| <i>Linaria vulgaris</i> agg.                            | 3429  |
| <i>Linaria vulgaris</i>                                 | 3433  |
| <i>Linaria vulgaris</i> agg.                            | 3429  |
| <i>Lindernia dubia</i>                                  | 3434  |
| <i>Gratiola anagallidea</i>                             | 13832 |
| <i>Linum perenne</i> agg.                               | 3454  |
| <i>Linum austriacum</i>                                 | 3455  |
| <i>Linum leonii</i>                                     | 3458  |
| <i>Linum perenne</i>                                    | 26993 |
| <i>Lithospermum arvense</i>                             | 3475  |
| <i>Buglossoides arvensis</i> subsp. <i>sibthorpiana</i> | 20947 |
| <i>Lithospermum arvense</i>                             | 3475  |
| <i>Lotus corniculatus</i> agg.                          | 3505  |
| <i>Lotus corniculatus</i>                               | 3508  |
| <i>Lotus corniculatus</i> agg.                          | 3505  |
| <i>Lotus corniculatus</i> subsp. <i>corniculatus</i>    | 22509 |
| <i>Lotus corniculatus</i> var. <i>ciliatus</i>          | 25841 |
| <i>Lotus tenuis</i>                                     | 3510  |
| <i>Lotus pedunculatus</i>                               | 22517 |
| <i>Lotus pedunculatus</i>                               | 22517 |
| <i>Lotus uliginosus</i>                                 | 3516  |
| <i>Luzula campestris</i> agg.                           | 3530  |
| <i>Luzula campestris</i>                                | 3531  |
| <i>Luzula campestris</i> agg.                           | 3530  |
| <i>Luzula campestris</i> subsp. <i>multiflora</i>       | 22525 |
| <i>Luzula multiflora</i>                                | 11817 |
| <i>Luzula pallescens</i>                                | 25388 |
| <i>Luzula sudetica</i>                                  | 3536  |
| <i>Luzula luzuloides</i>                                | 3541  |
| <i>Luzula albida</i>                                    | 3526  |
| <i>Luzula luzuloides</i>                                | 3541  |
| <i>Luzula luzuloides</i> subsp. <i>rubella</i>          | 14424 |
| <i>Luzula sylvatica</i>                                 | 3547  |
| <i>Luzula sylvatica</i>                                 | 3547  |
| <i>Luzula sylvatica</i> subsp. <i>sylvatica</i>         | 3549  |

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| <i>Lycopersicon esculentum</i>                    | 3558  |
| <i>Lycopersicon esculentum</i>                    | 3558  |
| <i>Solanum lycopersicum</i>                       | 24088 |
| <i>Lycopus europaeus</i>                          | 3562  |
| <i>Lycopus europaeus</i>                          | 3562  |
| <i>Lycopus europaeus</i> subsp. <i>europaeus</i>  | 3563  |
| <i>Malus sylvestris</i> agg.                      | 3580  |
| <i>Malus sylvestris</i>                           | 3582  |
| <i>Malus sylvestris</i> agg.                      | 3580  |
| <i>Matricaria</i>                                 | 60765 |
| <i>Chamomilla</i>                                 | 67025 |
| <i>Matricaria</i>                                 | 60765 |
| <i>Matricaria discoidea</i>                       | 3597  |
| <i>Chamomilla suaveolens</i>                      | 21249 |
| <i>Matricaria discoidea</i>                       | 3597  |
| <i>Matricaria recutita</i>                        | 21248 |
| <i>Chamomilla recutita</i>                        | 21247 |
| <i>Matricaria recutita</i>                        | 21248 |
| <i>Medicago sativa</i> agg.                       | 3616  |
| <i>Medicago</i> × <i>varia</i>                    | 3620  |
| <i>Medicago falcata</i>                           | 3617  |
| <i>Medicago sativa</i>                            | 11820 |
| <i>Medicago sativa</i> agg.                       | 3616  |
| <i>Melampyrum pratense</i>                        | 3638  |
| <i>Melampyrum pratense</i>                        | 3638  |
| <i>Melampyrum pratense</i> subsp. <i>pratense</i> | 13853 |
| <i>Melica ciliata</i> agg.                        | 3643  |
| <i>Melica ciliata</i>                             | 3644  |
| <i>Melica ciliata</i> var. <i>nebrodensis</i>     | 13015 |
| <i>Melica nutans</i> agg.                         | 3648  |
| <i>Melica nutans</i>                              | 3650  |
| <i>Melica nutans</i> agg.                         | 3648  |
| <i>Melica picta</i>                               | 3651  |
| <i>Mentha spicata</i> agg.                        | 3676  |
| <i>Mentha longifolia</i>                          | 3677  |
| <i>Mentha suaveolens</i>                          | 3680  |
| <i>Mercurialis perennis</i> agg.                  | 3691  |
| <i>Mercurialis ovata</i>                          | 3692  |
| <i>Mercurialis perennis</i>                       | 3694  |
| <i>Minuartia hybrida</i>                          | 3720  |
| <i>Alsine tenuifolia</i>                          | 25807 |
| <i>Minuartia rubra</i>                            | 22674 |
| <i>Minuartia fastigiata</i>                       | 3715  |
| <i>Minuartia rubra</i>                            | 22674 |
| <i>Minuartia verna</i>                            | 26607 |
| <i>Minuartia verna</i>                            | 26607 |
| <i>Minuartia verna</i> subsp. <i>gerardii</i>     | 22675 |
| <i>Minuartia verna</i> subsp. <i>hercynica</i>    | 6499  |
| <i>Molinia caerulea</i> agg.                      | 3756  |
| <i>Molinia</i>                                    | 61408 |
| <i>Molinia arundinacea</i>                        | 3757  |
| <i>Molinia caerulea</i>                           | 3758  |
| <i>Monotropa hypopitys</i> agg.                   | 3762  |
| <i>Monotropa hypophegea</i>                       | 3763  |
| <i>Monotropa hypopitys</i>                        | 3764  |
| <i>Monotropa hypopitys</i> agg.                   | 3762  |
| <i>Montia fontana</i>                             | 3765  |
| <i>Montia fontana</i>                             | 3765  |
| <i>Montia fontana</i> subsp. <i>chondrosperma</i> | 3767  |
| <i>Mycelis muralis</i>                            | 3781  |
| <i>Lactuca muralis</i>                            | 22329 |
| <i>Mycelis muralis</i>                            | 3781  |
| <i>Myosotis arvensis</i>                          | 3782  |

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| <i>Myosotis arvensis</i>                              | 3782  |
| <i>Myosotis arvensis</i> subsp. <i>arvensis</i>       | 3783  |
| <i>Myosotis discolor</i>                              | 3785  |
| <i>Myosotis discolor</i>                              | 3785  |
| <i>Myosotis versicolor</i>                            | 22757 |
| <i>Myosotis ramosissima</i>                           | 3792  |
| <i>Myosotis hispida</i>                               | 22735 |
| <i>Myosotis ramosissima</i>                           | 3792  |
| <i>Myosotis scorpioides</i> agg.                      | 20051 |
| <i>Myosotis caespitosa</i>                            | 22731 |
| <i>Myosotis laxa</i>                                  | 6500  |
| <i>Myosotis laxiflora</i>                             | 3788  |
| <i>Myosotis multiflora</i>                            | 12098 |
| <i>Myosotis nemorosa</i>                              | 3789  |
| <i>Myosotis nemorosa</i> subsp. <i>brevisetacea</i>   | 22741 |
| <i>Myosotis palustris</i>                             | 22743 |
| <i>Myosotis palustris</i> agg.                        | 3786  |
| <i>Myosotis palustris</i> s. l.                       | 15315 |
| <i>Myosotis scorpioides</i>                           | 3791  |
| <i>Myosotis scorpioides</i> agg.                      | 20051 |
| <i>Myosotis scorpioides</i> subsp. <i>scorpioides</i> | 12104 |
| <i>Myosotis stricta</i>                               | 3804  |
| <i>Myosotis micrantha</i>                             | 22740 |
| <i>Myosotis stricta</i>                               | 3804  |
| <i>Myosotis sylvatica</i> agg.                        | 3793  |
| <i>Myosotis alpestris</i>                             | 3794  |
| <i>Myosotis decumbens</i>                             | 3795  |
| <i>Myosotis sylvatica</i>                             | 3802  |
| <i>Nigritella nigra</i> agg.                          | 3851  |
| <i>Nigritella nigra</i>                               | 7167  |
| <i>Nigritella nigra</i> agg.                          | 3851  |
| <i>Odontites luteus</i>                               | 3863  |
| <i>Euphrasia lutea</i>                                | 21768 |
| <i>Odontites luteus</i>                               | 3863  |
| <i>Orthanthella lutea</i>                             | 3863  |
| <i>Odontites vernus</i> agg.                          | 12023 |
| <i>Odontites ruber</i>                                | 13749 |
| <i>Odontites vernus</i>                               | 3866  |
| <i>Odontites vernus</i> agg.                          | 12023 |
| <i>Odontites vulgaris</i>                             | 3867  |
| <i>Onobrychis viciifolia</i> agg.                     | 3906  |
| <i>Onobrychis arenaria</i>                            | 3907  |
| <i>Onobrychis sativa</i>                              | 93791 |
| <i>Onobrychis viciifolia</i>                          | 3912  |
| <i>Ononis spinosa</i> agg.                            | 3920  |
| <i>Ononis procurrens</i>                              | 22831 |
| <i>Ononis repens</i>                                  | 3922  |
| <i>Ononis repens</i> subsp. <i>procurrens</i>         | 3923  |
| <i>Ononis spinosa</i>                                 | 3925  |
| <i>Ononis spinosa</i> agg.                            | 3920  |
| <i>Ononis spinosa</i> subsp. <i>maritima</i>          | 22837 |
| <i>Ophrys holoserica</i>                              | 3955  |
| <i>Ophrys fuciflora</i>                               | 22852 |
| <i>Ophrys holoserica</i>                              | 3955  |
| <i>Ophrys insectifera</i>                             | 3956  |
| <i>Ophrys insectifera</i>                             | 3956  |
| <i>Ophrys muscifera</i>                               | 22859 |
| <i>Oreopteris limbosperma</i>                         | 22909 |
| <i>Dryopteris montana</i>                             | 21597 |
| <i>Lastrea limbosperma</i>                            | 22377 |
| <i>Oreopteris limbosperma</i>                         | 22909 |
| <i>Thelypteris limbosperma</i>                        | 5910  |
| <i>Orthilia secunda</i>                               | 4054  |

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| <i>Orthilia secunda</i>                              | 4054  |
| <i>Pyrola secunda</i>                                | 23440 |
| <i>Oxalis stricta</i>                                | 22973 |
| <i>Oxalis fontana</i>                                | 4065  |
| <i>Oxalis stricta</i>                                | 22973 |
| <i>Oxytropis montana</i> agg.                        | 4080  |
| <i>Oxytropis jacquinii</i>                           | 4084  |
| <i>Oxytropis montana</i> agg.                        | 4080  |
| <i>Papaver dubium</i>                                | 10700 |
| <i>Papaver dubium</i>                                | 10700 |
| <i>Papaver dubium</i> subsp. <i>lecoqii</i>          | 22999 |
| <i>Pedicularis palustris</i>                         | 4158  |
| <i>Pedicularis palustris</i>                         | 4158  |
| <i>Pedicularis palustris</i> subsp. <i>palustris</i> | 13828 |
| <i>Persicaria amphibia</i>                           | 23027 |
| <i>Persicaria amphibia</i>                           | 23027 |
| <i>Polygonum amphibium</i>                           | 4413  |
| <i>Persicaria dubia</i>                              | 11734 |
| <i>Persicaria dubia</i>                              | 11734 |
| <i>Persicaria mitis</i>                              | 23041 |
| <i>Polygonum mite</i>                                | 4429  |
| <i>Persicaria hydropiper</i>                         | 23032 |
| <i>Persicaria hydropiper</i>                         | 23032 |
| <i>Polygonum hydropiper</i>                          | 4422  |
| <i>Persicaria lapathifolia</i>                       | 23034 |
| <i>Persicaria lapathifolia</i>                       | 23034 |
| <i>Persicaria lapathifolia</i> subsp. <i>pallida</i> | 13950 |
| <i>Polygonum lapathifolium</i>                       | 4423  |
| <i>Persicaria maculosa</i>                           | 23038 |
| <i>Persicaria maculosa</i>                           | 23038 |
| <i>Polygonum persicaria</i>                          | 4435  |
| <i>Persicaria minor</i>                              | 23039 |
| <i>Persicaria minor</i>                              | 23039 |
| <i>Polygonum minus</i>                               | 4428  |
| <i>Petrorhagia prolifera</i> agg.                    | 4185  |
| <i>Petrorhagia prolifera</i>                         | 4187  |
| <i>Tunica prolifera</i>                              | 24402 |
| <i>Petrorhagia saxifraga</i>                         | 4189  |
| <i>Petrorhagia saxifraga</i>                         | 4189  |
| <i>Tunica saxifraga</i>                              | 24403 |
| <i>Phegopteris connectilis</i>                       | 23065 |
| <i>Gymnocarpium phegopteris</i>                      | 12299 |
| <i>Phegopteris connectilis</i>                       | 23065 |
| <i>Thelypteris phegopteris</i>                       | 5912  |
| <i>Phleum alpinum</i> agg.                           | 4215  |
| <i>Phleum alpinum</i>                                | 25110 |
| <i>Phleum alpinum</i> agg.                           | 4215  |
| <i>Phleum phleoides</i>                              | 4222  |
| <i>Phleum boehmeri</i>                               | 23073 |
| <i>Phleum phleoides</i>                              | 4222  |
| <i>Phleum pratense</i> agg.                          | 4223  |
| <i>Phleum bertolonii</i>                             | 4224  |
| <i>Phleum pratense</i>                               | 4225  |
| <i>Phleum pratense</i> agg.                          | 4223  |
| <i>Phleum pratense</i> subsp. <i>pratense</i>        | 27013 |
| <i>Phragmites australis</i>                          | 4229  |
| <i>Phragmites australis</i>                          | 4229  |
| <i>Phragmites communis</i>                           | 23084 |
| <i>Phyteuma orbiculare</i>                           | 26610 |
| <i>Phyteuma orbiculare</i>                           | 26610 |
| <i>Phyteuma orbiculare</i> subsp. <i>orbiculare</i>  | 24940 |
| <i>Phyteuma spicatum</i>                             | 4264  |
| <i>Phyteuma spicatum</i>                             | 4264  |

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| Phyteuma spicatum subsp. occidentale      | 14758 |
| Phyteuma spicatum subsp. spicatum         | 4266  |
| Phyteuma spicatum var. coeruleum          | 23091 |
| Picea abies                               | 4269  |
| Picea abies                               | 4269  |
| Picea excelsa                             | 23106 |
| Picris hieracioides                       | 4274  |
| Picris hieracioides                       | 4274  |
| Picris hieracioides agg.                  | 4272  |
| Pimpinella major                          | 4277  |
| Pimpinella major                          | 4277  |
| Pimpinella major subsp. major             | 23108 |
| Pimpinella saxifraga agg.                 | 4279  |
| Pimpinella saxifraga                      | 4282  |
| Pimpinella saxifraga agg.                 | 4279  |
| Plantago lanceolata                       | 4320  |
| Plantago lanceolata                       | 4320  |
| Plantago lanceolata subsp. sphaerostachya | 23153 |
| Plantago lanceolata var. sphaerostachya   | 25683 |
| Plantago major                            | 4321  |
| Plantago intermedia                       | 23150 |
| Plantago major                            | 4321  |
| Plantago major subsp. intermedia          | 4322  |
| Plantago major subsp. major               | 4323  |
| Plantago maritima agg.                    | 4325  |
| Plantago alpina                           | 4326  |
| Plantago maritima                         | 27766 |
| Plantago strictissima                     | 23161 |
| Plantago media agg.                       | 4332  |
| Plantago media                            | 4333  |
| Plantago media agg.                       | 4332  |
| Poa annua agg.                            | 4343  |
| Poa annua                                 | 4344  |
| Poa annua agg.                            | 4343  |
| Poa supina                                | 4345  |
| Poa pratensis agg.                        | 4366  |
| Poa angustifolia                          | 4367  |
| Poa humilis                               | 7372  |
| Poa pratensis                             | 4368  |
| Poa pratensis agg.                        | 4366  |
| Poa pratensis subsp. angustifolia         | 23193 |
| Poa trivialis                             | 26611 |
| Poa trivialis                             | 26611 |
| Poa trivialis agg.                        | 4372  |
| Poa trivialis subsp. trivialis            | 7161  |
| Polygala amara agg.                       | 4390  |
| Polygala amara                            | 4391  |
| Polygala amara agg.                       | 4390  |
| Polygala amara subsp. amarella            | 23205 |
| Polygala amarella                         | 4394  |
| Polygala vulgaris                         | 4405  |
| Polygala oxyptera                         | 23212 |
| Polygala vulgaris                         | 4405  |
| Polygala vulgaris s. str.                 | 10745 |
| Polygala vulgaris subsp. oxyptera         | 4406  |
| Polygala vulgaris subsp. vulgaris         | 4407  |
| Polygonatum odoratum                      | 4410  |
| Polygonatum odoratum                      | 4410  |
| Polygonatum officinale                    | 27134 |
| Polygonum aviculare agg.                  | 4415  |
| Polygonum aviculare                       | 4417  |
| Polygonum aviculare agg.                  | 4415  |
| Populus × canadensis                      | 50080 |



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| Populus × canadensis             | 50080 |
| Populus × euamericana            | 10760 |
| Potentilla argentea agg.         | 4490  |
| Potentilla argentea              | 4491  |
| Potentilla argentea agg.         | 4490  |
| Potentilla erecta                | 4511  |
| Potentilla erecta                | 4511  |
| Potentilla tormentilla           | 23354 |
| Potentilla heptaphylla agg.      | 4515  |
| Potentilla heptaphylla           | 4517  |
| Potentilla rubens                | 23350 |
| Potentilla incana                | 25757 |
| Potentilla arenaria              | 4539  |
| Potentilla cinerea               | 25853 |
| Potentilla cinerea subsp. incana | 15377 |
| Potentilla incana                | 25757 |
| Potentilla × subarenaria         | 50084 |
| Potentilla palustris             | 4528  |
| Comarum palustre                 | 21352 |
| Potentilla palustris             | 4528  |
| Potentilla verna agg.            | 4538  |
| Potentilla neumanniana           | 4541  |
| Potentilla pusilla               | 4542  |
| Potentilla tabernaemontani       | 20053 |
| Potentilla verna                 | 23355 |
| Potentilla verna agg.            | 4538  |
| Potentilla verna subsp. vulgaris | 28077 |
| Primula veris                    | 4570  |
| Primula officinalis              | 23378 |
| Primula veris                    | 4570  |
| Primula veris subsp. veris       | 4575  |
| Primula × digenea                | 92537 |
| Primula elatior × vulgaris       | 92534 |
| Primula × media                  | 50085 |
| Primula elatior × veris          | 92533 |
| Pritzelago alpina                | 26680 |
| Hutchinsia alpina                | 3000  |
| Pritzelago alpina                | 26680 |
| Prunus avium                     | 4582  |
| Cerasus avium                    | 21216 |
| Prunus avium                     | 4582  |
| Prunus avium subsp. avium        | 24942 |
| Prunus cerasus agg.              | 4585  |
| Cerasus vulgaris                 | 21220 |
| Prunus cerasus                   | 4586  |
| Prunus mahaleb                   | 4592  |
| Cerasus mahaleb                  | 21219 |
| Prunus mahaleb                   | 4592  |
| Prunus padus                     | 4593  |
| Padus avium                      | 22980 |
| Prunus padus                     | 4593  |
| Prunus spinosa agg.              | 4597  |
| Prunus × fruticans               | 4598  |
| Prunus spinosa                   | 4599  |
| Prunus spinosa subsp. fruticans  | 23396 |
| Pseudolysimachion longifolium    | 23400 |
| Pseudolysimachion longifolium    | 23400 |
| Veronica longifolia              | 6261  |
| Pseudolysimachion spicatum       | 23404 |
| Pseudolysimachion spicatum       | 23404 |
| Veronica spicata                 | 6286  |
| Pseudorchis albida               | 4601  |
| Leucorchis albida                | 3390  |

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| <i>Pseudorchis albida</i>                                    | 4601  |
| <i>Pulmonaria officinalis</i> agg.                           | 4636  |
| <i>Pulmonaria obscura</i>                                    | 4637  |
| <i>Pulmonaria officinalis</i>                                | 4638  |
| <i>Pulmonaria officinalis</i> agg.                           | 4636  |
| <i>Pulsatilla alpina</i>                                     | 15385 |
| <i>Pulsatilla alpina</i> agg.                                | 4642  |
| <i>Pulsatilla vulgaris</i>                                   | 26617 |
| <i>Anemone pulsatilla</i>                                    | 20428 |
| <i>Anemone pulsatilla</i> subsp. <i>grandis</i>              | 20429 |
| <i>Pulsatilla vulgaris</i>                                   | 26617 |
| <i>Pulsatilla vulgaris</i> agg.                              | 4656  |
| <i>Pulsatilla vulgaris</i> subsp. <i>grandis</i>             | 23437 |
| <i>Pyrus communis</i> agg.                                   | 4669  |
| <i>Pyrus communis</i>  | 6936  |
| <i>Pyrus communis</i> agg.                                   | 4669  |
| <i>Pyrus communis</i> subsp. <i>pyraster</i>                 | 23449 |
| <i>Pyrus pyraster</i>  | 4671  |
| <i>Quercus petraea</i> agg.                                  | 4678  |
| <i>Quercus petraea</i>                                       | 4680  |
| <i>Quercus sessiliflora</i>                                  | 23468 |
| <i>Quercus robur</i>   | 4685  |
| <i>Quercus pedunculata</i>                                   | 23466 |
| <i>Quercus robur</i>   | 4685  |
| <i>Ranunculus acris</i> agg.                                 | 4689  |
| <i>Ranunculus acris</i>                                      | 4690  |
| <i>Ranunculus acris</i> agg.                                 | 4689  |
| <i>Ranunculus aquatilis</i> agg.                             | 4697  |
| <i>Ranunculus aquatilis</i>                                  | 4698  |
| <i>Ranunculus aquatilis</i> agg.                             | 4697  |
| <i>Ranunculus peltatus</i>                                   | 12030 |
| <i>Ranunculus auricomus</i> agg.                             | 4709  |
| <i>Ranunculus auricomus</i>                                  | 11978 |
| <i>Ranunculus auricomus</i> agg.                             | 4709  |
| <i>Ranunculus auricomus</i> s. l.                            | 4710  |
| <i>Ranunculus biformis</i>                                   | 27241 |
| <i>Ranunculus kochii</i>                                     | 10821 |
| <i>Ranunculus rectus</i>                                     | 6956  |
| <i>Ranunculus bulbosus</i>                                   | 4717  |
| <i>Ranunculus bulbosus</i>                                   | 4717  |
| <i>Ranunculus bulbosus</i> subsp. <i>bulbosus</i>            | 12015 |
| <i>Ranunculus ficaria</i>                                    | 4721  |
| <i>Ficaria verna</i>   | 21893 |
| <i>Ranunculus ficaria</i>                                    | 4721  |
| <i>Ranunculus ficaria</i> subsp. <i>bulbilifer</i>           | 4722  |
| <i>Ranunculus flammula</i> agg.                              | 4726  |
| <i>Ranunculus flammula</i>                                   | 4727  |
| <i>Ranunculus flammula</i> agg.                              | 4726  |
| <i>Ranunculus reptans</i>                                    | 4728  |
| <i>Ranunculus montanus</i> agg.                              | 4743  |
| <i>Ranunculus breyninus</i>                                  | 23477 |
| <i>Ranunculus montanus</i>                                   | 4747  |
| <i>Ranunculus montanus</i> agg.                              | 4743  |
| <i>Ranunculus polyanthemos</i> agg.                          | 4758  |
| <i>Ranunculus nemorosus</i>                                  | 4759  |
| <i>Ranunculus nemorosus</i> subsp. <i>polyanthemophyllus</i> | 23501 |
| <i>Ranunculus polyanthemoides</i>                            | 4760  |
| <i>Ranunculus polyanthemophyllus</i>                         | 4761  |
| <i>Ranunculus polyanthemos</i>                               | 4762  |
| <i>Ranunculus polyanthemos</i> agg.                          | 4758  |
| <i>Raphanus raphanistrum</i> agg.                            | 4778  |
| <i>Raphanus raphanistrum</i>                                 | 4780  |
| <i>Raphanus sativus</i>                                      | 4781  |

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| Rhinanthus angustifolius                      | 23544 |
| Rhinanthus angustifolius                      | 23544 |
| Rhinanthus angustifolius subsp. angustifolius | 23545 |
| Rhinanthus angustifolius subsp. grandiflorus  | 6569  |
| Rhinanthus serotinus                          | 4832  |
| Rhinanthus aristatus agg.                     | 4817  |
| Rhinanthus aristatus                          | 23551 |
| Rhinanthus glacialis                          | 4819  |
| Rhinanthus minor                              | 4828  |
| Alectorolophus minor                          | 20304 |
| Rhinanthus minor                              | 4828  |
| Ribes rubrum agg.                             | 4850  |
| Ribes rubrum                                  | 4851  |
| Ribes rubrum agg.                             | 4850  |
| Rosa canina agg. s. l.                        | 94740 |
| Rosa canina                                   | 26665 |
| Rosa canina agg.                              | 4872  |
| Rosa canina agg. s. l.                        | 94740 |
| Rosa corymbifera                              | 26666 |
| Rosa obtusifolia                              | 4897  |
| Rosa rubiginosa agg. s. l.                    | 92752 |
| Rosa elliptica                                | 4887  |
| Rosa micrantha                                | 4893  |
| Rosa rubiginosa                               | 4902  |
| Rosa rubiginosa agg. s. l.                    | 92752 |
| Rosa spinosissima                             | 23649 |
| Rosa pimpinellifolia                          | 4899  |
| Rosa tomentosa agg. s. l.                     | 92754 |
| Rosa tomentosa                                | 4912  |
| Rosa tomentosa agg.                           | 4907  |
| Rosa villosa agg.                             | 4908  |
| Rubus canescens                               | 4952  |
| Rubus canescens                               | 4952  |
| Rubus tomentosus                              | 25709 |
| Rubus grabowskii                              | 7078  |
| Rubus thyrsanthus                             | 5056  |
| Rubus latiarcuatus                            | 24749 |
| Rubus vulgaris var. mollis                    | 11374 |
| Rubus montanus                                | 24778 |
| Rubus candicans                               | 4951  |
| Rubus montanus                                | 24778 |
| Rubus plicatus                                | 5024  |
| Rubus affinis                                 | 4931  |
| Rubus plicatus                                | 5024  |
| Rubus sect. Rubus                             | 11351 |
| Rubus fruticosus s. l.                        | 11886 |
| Rubus sect. Rubus                             | 11351 |
| Rumex acetosa agg.                            | 92799 |
| Rumex acetosa                                 | 5073  |
| Rumex thyrsiflorus                            | 5108  |
| Rumex acetosella                              | 26619 |
| Rumex acetosella                              | 26619 |
| Rumex acetosella agg.                         | 5074  |
| Rumex acetosella subsp. acetosella            | 26618 |
| Rumex acetosella subsp. tenuifolius           | 27201 |
| Rumex tenuifolius                             | 5077  |
| Rumex arifolius                               | 20080 |
| Rumex alpestris                               | 5078  |
| Rumex arifolius                               | 20080 |
| Rumex pseudoalpinus                           | 23661 |
| Rumex alpinus                                 | 5079  |
| Rumex × pratensis                             | 50156 |
| Rumex × pratensis                             | 50156 |

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| Rumex crispus × obtusifolius   | 92814 |
| Salix fragilis agg.            | 5167  |
| Salix × rubens                 | 5169  |
| Salix fragilis                 | 5168  |
| Salix myrsinifolia             | 5185  |
| Salix myrsinifolia             | 5185  |
| Salix nigricans                | 23730 |
| Salix repens agg.              | 27193 |
| Salix repens                   | 27194 |
| Salix repens agg.              | 27193 |
| Salix repens s. l.             | 5191  |
| Salix repens subsp. repens     | 5193  |
| Salix retusa agg.              | 5196  |
| Salix retusa                   | 5198  |
| Salix retusa agg.              | 5196  |
| Salix serpillifolia            | 5199  |
| Salix × multinervis            | 27195 |
| Salix × multinervis            | 27195 |
| Salix aurita × cinerea         | 92857 |
| Salix × smithiana              | 27196 |
| Salix × smithiana              | 27196 |
| Salix caprea × viminalis       | 92873 |
| Salix × wimmeriana             | 50108 |
| Salix caprea × purpurea        | 92872 |
| Salsola kali                   | 5208  |
| Salsola kali subsp. tragus     | 5211  |
| Salsola tragus                 | 23749 |
| Sanguisorba minor              | 5231  |
| Sanguisorba minor              | 5231  |
| Sanguisorba minor subsp. minor | 5232  |
| Scabiosa columbaria agg.       | 5337  |
| Scabiosa columbaria            | 5338  |
| Scabiosa columbaria agg.       | 5337  |
| Scabiosa lucida                | 5342  |
| Scleranthus annuus agg.        | 5376  |
| Scleranthus annuus             | 5377  |
| Scleranthus annuus agg.        | 5376  |
| Scleranthus polycarpus         | 5378  |
| Scleranthus × intermedius      | 92980 |
| Scleranthus annuus × perennis  | 92978 |
| Securigera varia               | 21382 |
| Coronilla varia                | 1662  |
| Securigera varia               | 21382 |
| Sedum rupestre agg.            | 5429  |
| Sedum reflexum                 | 5433  |
| Sedum rupestre                 | 23907 |
| Sedum rupestre subsp. reflexum | 23910 |
| Sedum sexangulare              | 5437  |
| Sedum boloniense               | 23894 |
| Sedum mite                     | 23901 |
| Sedum sexangulare              | 5437  |
| Sedum telephium agg.           | 5440  |
| Hylotelephium maximum          | 7126  |
| Sedum maximum                  | 5441  |
| Sedum telephium                | 27746 |
| Sedum telephium agg.           | 5440  |
| Sedum telephium subsp. maximum | 23912 |
| Senecio alpinus                | 5467  |
| Senecio alpinus                | 5467  |
| Senecio cordatus               | 23945 |
| Senecio aquaticus agg.         | 5468  |
| Senecio aquaticus              | 5469  |
| Senecio aquaticus agg.         | 5468  |

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|---|-------|
| <i>Senecio erraticus</i>                        | 5470  |
| <i>Senecio incanus</i>                          | 5485  |
| <i>Senecio carniolicus</i>                      | 23942 |
| <i>Senecio jacobaea</i>                         | 5494  |
| <i>Jacobaea vulgaris</i>                        | 25789 |
| <i>Senecio jacobaea</i>                         | 5494  |
| <i>Senecio nemorensis</i> agg.                  | 5496  |
| <i>Senecio fuchsii</i>                          | 5498  |
| <i>Senecio hercynicus</i>                       | 5499  |
| <i>Senecio nemorensis</i>                       | 94860 |
| <i>Senecio nemorensis</i> agg.                  | 5496  |
| <i>Senecio ovatus</i>                           | 23947 |
| <i>Senecio ovatus</i> subsp. <i>alpestris</i>   | 7006  |
| <i>Serratula tinctoria</i>                      | 27047 |
| <i>Serratula tinctoria</i>                      | 27047 |
| <i>Serratula tinctoria</i> agg.                 | 5524  |
| <i>Seseli libanotis</i>                         | 5540  |
| <i>Libanotis montana</i>                        | 22460 |
| <i>Libanotis sibirica</i>                       | 22463 |
| <i>Seseli libanotis</i>                         | 5540  |
| <i>Sesleria varia</i> agg.                      | 5558  |
| <i>Sesleria albicans</i>                        | 23996 |
| <i>Sesleria albicans</i> subsp. <i>albicans</i> | 27051 |
| <i>Sesleria albicans</i> var. <i>albicans</i>   | 15414 |
| <i>Sesleria caerulea</i>                        | 25028 |
| <i>Sesleria caerulea</i> subsp. <i>calcaria</i> | 13441 |
| <i>Sesleria varia</i>                           | 24991 |
| <i>Setaria pumila</i>                           | 24008 |
| <i>Setaria glauca</i>                           | 5563  |
| <i>Setaria pumila</i>                           | 24008 |
| <i>Silene</i>                                   | 60691 |
| <i>Lychnis</i>                                  | 60681 |
| <i>Silene</i>                                   | 60691 |
| <i>Silene acaulis</i> agg.                      | 5578  |
| <i>Silene acaulis</i>                           | 5579  |
| <i>Silene acaulis</i> agg.                      | 5578  |
| <i>Silene coronaria</i>                         | 11625 |
| <i>Lychnis coronaria</i>                        | 3551  |
| <i>Silene flos-cuculi</i>                       | 24031 |
| <i>Lychnis flos-cuculi</i>                      | 3552  |
| <i>Silene flos-cuculi</i>                       | 24031 |
| <i>Silene latifolia</i>                         | 7012  |
| <i>Melandrium album</i>                         | 22627 |
| <i>Silene alba</i>                              | 5581  |
| <i>Silene latifolia</i>                         | 7012  |
| <i>Silene latifolia</i> subsp. <i>alba</i>      | 22546 |
| <i>Silene pratensis</i>                         | 20058 |
| <i>Silene noctiflora</i>                        | 5603  |
| <i>Melandrium noctiflorum</i>                   | 22630 |
| <i>Silene noctiflora</i>                        | 5603  |
| <i>Silene nutans</i> agg.                       | 5604  |
| <i>Silene nutans</i>                            | 5606  |
| <i>Silene nutans</i> agg.                       | 5604  |
| <i>Silene viscaria</i>                          | 11627 |
| <i>Lychnis viscaria</i>                         | 3554  |
| <i>Silene viscaria</i>                          | 11627 |
| <i>Viscaria vulgaris</i>                        | 24569 |
| <i>Silene vulgaris</i>                          | 5629  |
| <i>Silene cucubalus</i>                         | 24029 |
| <i>Silene inflata</i>                           | 25277 |
| <i>Silene vulgaris</i>                          | 5629  |
| <i>Silene vulgaris</i> agg.                     | 20067 |
| <i>Silene vulgaris</i> subsp. <i>vulgaris</i>   | 5634  |

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|---|-------|
| <i>Silene vulgaris</i> var. <i>humilis</i>                                | 24046 |
| <i>Soldanella alpicola</i>  | 24100 |
| <i>Soldanella pusilla</i> s. l.   | 5678  |
| <i>Solidago virgaurea</i>   | 5682  |
| <i>Solidago virgaurea</i>   | 5682  |
| <i>Solidago virgaurea</i> subsp. <i>virgaurea</i>                         | 5684  |
| <i>Sonchus asper</i>  | 5690  |
| <i>Sonchus asper</i>  | 5690  |
| <i>Sonchus asper</i> subsp. <i>asper</i>                                  | 5691  |
| <i>Sorbus aria</i> agg.   | 5696  |
| <i>Sorbus aria</i>  | 5697  |
| <i>Sorbus aria</i> agg.   | 5696  |
| <i>Sorbus aucuparia</i>   | 5700  |
| <i>Sorbus aucuparia</i>   | 5700  |
| <i>Sorbus aucuparia</i> subsp. <i>aucuparia</i>                           | 5701  |
| <i>Spergula pentandra</i> agg.  | 5730  |
| <i>Spergula morisonii</i>   | 5731  |
| <i>Spergula vernalis</i>  | 24154 |
| <i>Spergularia media</i>  | 5734  |
| <i>Spergularia maritima</i>   | 24145 |
| <i>Spergularia media</i>  | 5734  |
| <i>Stellaria alsine</i>   | 5769  |
| <i>Stellaria alsine</i>   | 5769  |
| <i>Stellaria uliginosa</i>  | 5782  |
| <i>Stellaria aquatica</i>   | 24917 |
| <i>Myosoton aquaticum</i>   | 3805  |
| <i>Stellaria aquatica</i>   | 24917 |
| <i>Stellaria media</i> agg.   | 5774  |
| <i>Stellaria media</i>  | 5775  |
| <i>Stellaria media</i> agg.   | 5774  |
| <i>Stellaria pallida</i>  | 5777  |
| <i>Stellaria nemorum</i>  | 5778  |
| <i>Stellaria nemorum</i>  | 5778  |
| <i>Stellaria nemorum</i> subsp. <i>nemorum</i>                            | 5780  |
| <i>Stellaria palustris</i>  | 11573 |
| <i>Stellaria glauca</i>   | 24184 |
| <i>Stellaria palustris</i>  | 11573 |
| <i>Stipa calamagrostis</i>  | 24197 |
| <i>Achnatherum calamagrostis</i>  | 47    |
| <i>Stipa pennata</i> agg.   | 5787  |
| <i>Stipa joannis</i>  | 5797  |
| <i>Stipa pennata</i>  | 24203 |
| <i>Stipa pennata</i> var. <i>mediterranea</i>                             | 13411 |
| <i>Stipa pulcherrima</i>  | 13746 |
| <i>Symphytum officinale</i>   | 26629 |
| <i>Symphytum officinale</i>   | 26629 |
| <i>Symphytum officinale</i> agg.  | 5823  |
| <i>Tanacetum corymbosum</i> agg.  | 5841  |
| <i>Chrysanthemum corymbosum</i>   | 21294 |
| <i>Tanacetum corymbosum</i>   | 5843  |
| <i>Tanacetum parthenium</i>   | 5845  |
| <i>Chrysanthemum parthenium</i>   | 21315 |
| <i>Tanacetum parthenium</i>   | 5845  |
| <i>Tanacetum vulgare</i>  | 5846  |
| <i>Chrysanthemum vulgare</i>  | 21314 |
| <i>Tanacetum vulgare</i>  | 5846  |
| <i>Taraxacum</i> sect. <i>Alpina</i> et <i>Hamata</i> et <i>Ruderalia</i> | 93219 |
| <i>Taraxacum</i> sect. <i>Alpina</i>                                      | 7424  |
| <i>Taraxacum officinale</i> agg.  | 7442  |
| <i>Taraxacum</i> sect. <i>Alpina</i> et <i>Hamata</i> et <i>Ruderalia</i> | 93219 |
| <i>Taraxacum</i> sect. <i>Ruderalia</i>                                   | 7434  |
| <i>Taraxacum officinale</i>   | 14513 |
| <i>Taraxacum</i> sect. <i>Erythrosperma</i>                               | 7428  |

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|---|-------|
| Taraxacum erythrospermum                  | 14460 |
| Taraxacum laevigatum                      | 14457 |
| Taraxacum levigatum agg.                  | 14458 |
| Taraxacum sect. Erythrosperma             | 7428  |
| Taraxacum sect. Palustria                 | 7433  |
| Taraxacum palustre                        | 25514 |
| Taraxacum sect. Palustria                 | 7433  |
| Tephrosieris helenitis                    | 23949 |
| Senecio helenitis                         | 5482  |
| Tephrosieris helenitis                    | 23949 |
| Tephrosieris integrifolia                 | 23953 |
| Senecio integrifolius                     | 5492  |
| Tephrosieris integrifolia                 | 23953 |
| Teucrium scorodonia                       | 5889  |
| Teucrium scorodonia                       | 5889  |
| Teucrium scorodonia subsp. scorodonia     | 5891  |
| Thalictrum minus agg.                     | 5896  |
| Thalictrum minus                          | 5898  |
| Thalictrum minus agg.                     | 5896  |
| Thalictrum minus subsp. saxatile          | 5902  |
| Thlaspi caerulescens                      | 5928  |
| Noccaea caerulescens                      | 22785 |
| Thlaspi cepaeifolium                      | 25000 |
| Thlaspi rotundifolium                     | 5940  |
| Thlaspi perfoliatum                       | 5938  |
| Microthlaspi perfoliatum                  | 22667 |
| Thlaspi perfoliatum                       | 5938  |
| Thymus praecox agg.                       | 5955  |
| Thymus praecox                            | 5957  |
| Thymus praecox agg.                       | 5955  |
| Thymus praecox subsp. polytrichus         | 5959  |
| Thymus praecox subsp. praecox             | 5960  |
| Thymus serpyllum subsp. praecox           | 13239 |
| Thymus pulegioides agg.                   | 5964  |
| Thymus pulegioides                        | 5965  |
| Thymus pulegioides agg.                   | 5964  |
| Thymus pulegioides subsp. pulegioides     | 7053  |
| Thymus serpyllum subsp. chamaedrys        | 13255 |
| Thymus serpyllum agg.                     | 6456  |
| Thymus angustifolius                      | 24265 |
| Thymus serpyllum                          | 5966  |
| Thymus serpyllum agg.                     | 6456  |
| Tragopogon pratensis                      | 7141  |
| Tragopogon minor                          | 5999  |
| Tragopogon orientalis                     | 6000  |
| Tragopogon pratensis                      | 7141  |
| Tragopogon pratensis agg.                 | 5998  |
| Tragopogon pratensis subsp. orientalis    | 24325 |
| Tragopogon pratensis subsp. pratensis     | 7100  |
| Trichophorum cespitosum                   | 27072 |
| Trichophorum cespitosum                   | 27072 |
| Trichophorum cespitosum subsp. germanicum | 24330 |
| Trifolium dubium agg.                     | 6028  |
| Trifolium dubium                          | 6029  |
| Trifolium dubium agg.                     | 6028  |
| Trifolium minus                           | 24352 |
| Trifolium pratense                        | 6057  |
| Trifolium pratense                        | 6057  |
| Trifolium pratense subsp. pratense        | 6061  |
| Tripleurospermum maritimum agg.           | 6096  |
| Matricaria inodora                        | 22000 |
| Matricaria maritima                       | 22580 |
| Matricaria perforata                      | 22003 |

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|---|-------|
| Tripleurospermum inodorum               | 20061 |
| Tripleurospermum maritimum              | 6098  |
| Tripleurospermum perforatum             | 6097  |
| Ulmus glabra                            | 6137  |
| Ulmus glabra                            | 6137  |
| Ulmus montana                           | 24424 |
| Ulmus scabra                            | 24425 |
| Ulmus minor agg.                        | 6139  |
| Ulmus campestris                        | 24420 |
| Ulmus minor                             | 6140  |
| Utricularia minor agg.                  | 6152  |
| Utricularia minor                       | 6154  |
| Utricularia minor agg.                  | 6152  |
| Vaccinium oxycoccos agg.                | 6161  |
| Oxycoccus palustris                     | 4070  |
| Vaccinium oxycoccos                     | 6163  |
| Vaccinium oxycoccos agg.                | 6161  |
| Vaccinium uliginosum                    | 6166  |
| Vaccinium uliginosum                    | 6166  |
| Vaccinium uliginosum agg.               | 6164  |
| Valeriana officinalis agg.              | 6177  |
| Valeriana officinalis                   | 6178  |
| Valeriana officinalis agg.              | 6177  |
| Valeriana pratensis                     | 6179  |
| Valeriana procurrens                    | 6180  |
| Valeriana wallrothii                    | 6183  |
| Veronica agrestis agg.                  | 93432 |
| Veronica agrestis                       | 6226  |
| Veronica persica                        | 6271  |
| Veronica polita                         | 6272  |
| Veronica anagallis-aquatica agg.        | 6231  |
| Veronica anagallis-aquatica             | 6232  |
| Veronica anagalloides                   | 6233  |
| Veronica catenata                       | 6234  |
| Veronica austriaca agg.                 | 6237  |
| Veronica austriaca                      | 13751 |
| Veronica austriaca subsp. dentata       | 24471 |
| Veronica austriaca subsp. teucrium      | 25019 |
| Veronica prostrata                      | 13869 |
| Veronica teucrium                       | 6243  |
| Veronica chamaedrys                     | 13752 |
| Veronica chamaedrys                     | 13752 |
| Veronica chamaedrys agg.                | 6248  |
| Veronica hederifolia                    | 26766 |
| Veronica hederifolia                    | 26766 |
| Veronica hederifolia agg.               | 6257  |
| Veronica hederifolia subsp. hederifolia | 7101  |
| Veronica sublobata                      | 6259  |
| Veronica verna agg.                     | 6292  |
| Veronica dillenii                       | 6293  |
| Veronica verna                          | 6294  |
| Veronica verna agg.                     | 6292  |
| Vicia cracca agg.                       | 6301  |
| Vicia cracca                            | 6302  |
| Vicia cracca agg.                       | 6301  |
| Vicia tenuifolia                        | 6306  |
| Vicia sativa agg.                       | 6328  |
| Vicia angustifolia                      | 6329  |
| Vicia sativa                            | 6334  |
| Vicia sativa agg.                       | 6328  |
| Vicia sativa subsp. nigra               | 24521 |
| Vicia sativa var. nigra                 | 24518 |
| Vicia tetrasperma agg.                  | 6338  |



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| <i>Vicia tenuissima</i>                                | 6340  |
| <i>Vicia tetrasperma</i>                               | 6341  |
| <i>Vicia tetrasperma</i> agg.                          | 6338  |
| <i>Vincetoxicum hirundinaria</i> agg.                  | 6349  |
| <i>Cynanchum vincetoxicum</i>                          | 21465 |
| <i>Vincetoxicum hirundinaria</i>                       | 6351  |
| <i>Vincetoxicum officinale</i>                         | 24536 |
| <i>Viola canina</i> agg.                               | 24994 |
| <i>Viola canina</i>                                    | 6367  |
| <i>Viola canina</i> subsp. <i>canina</i>               | 6368  |
| <i>Viola persicifolia</i>                              | 6386  |
| <i>Viola persicifolia</i>                              | 6386  |
| <i>Viola stagnina</i>                                  | 6394  |
| <i>Viola silvatica</i> agg.                            | 94746 |
| <i>Viola</i> × <i>bavarica</i>                         | 7420  |
| <i>Viola reichenbachiana</i>                           | 6390  |
| <i>Viola reichenbachiana</i> × <i>riviniana</i>        | 93487 |
| <i>Viola riviniana</i>                                 | 6391  |
| <i>Viola silvatica</i>                                 | 24559 |
| <i>Viola tricolor</i> agg.                             | 6397  |
| <i>Viola arvensis</i>                                  | 6398  |
| <i>Viola arvensis</i> × <i>tricolor</i>                | 93457 |
| <i>Viola arvensis</i> subsp. <i>arvensis</i>           | 7208  |
| <i>Viola tricolor</i>                                  | 6402  |
| <i>Viola tricolor</i> subsp. <i>tricolor</i>           | 6405  |
| <i>Viola tricolor</i> var. <i>arvensis</i>             | 12796 |
| x <i>Festulolium krasanii</i>                          | 93548 |
| <i>Festuca arundinacea</i> × <i>Lolium multiflorum</i> | 91392 |

Table 6: List of all taxon names that were adapted within projects, in addition to the harmonisation across all projects, as shown in Table 4. PROJECT\_ID and Project\_Name refer to the project in Table 1, RS\_PLOT is the plot resurvey ID, which identifies the groups of plots compared in time, RELEVE\_NR is the plot observation ID in the Turboveg 2 database (Table 4). Taxon\_name\_old is the name given by the original author, while Taxon\_name\_new\_1 and Taxon\_name\_new\_2 refer to newly assigned taxon names. In case of two new names the cover values of the old taxon were equally divided among the two new taxa.

| PROJECT_ID | Project_Name                | RS_Plot | RELEVE_NR | Taxon_name_old | Taxon_name_new_1          | Taxon_name_new_2 |
|------------|-----------------------------|---------|-----------|----------------|---------------------------|------------------|
| 6          | Bode (2005)                 | HEIDE   | 331       | Cuscuta        | Cuscuta epithymum         |                  |
| 6          | Bode (2005)                 | HEIDE   | 270       | Fagus          | Fagus sylvatica           |                  |
| 6          | Bode (2005)                 | HEIDE   | 271       | Fagus          | Fagus sylvatica           |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 32      | 138       | Tragopogon     | Tragopogon pratensis      |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 61      | 186       | Tortula        | Tortula ruralis agg.      |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 63      | 190       | Pulsatilla     | Pulsatilla pratensis      |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 56      | 182       | Anthericum     | Anthericum ramosum        |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 80      | 214       | Epipactis      | Epipactis atrorubens      |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 123     | 6         | Trifolium      | Trifolium repens          |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 138     | 36        | Epipactis      | Epipactis atrorubens      |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 146     | 38        | Achillea       | Achillea millefolium agg. |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 146     | 38        | Tragopogon     | Tragopogon pratensis      |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 205     | 118       | Tragopogon     | Tragopogon pratensis      |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 246     | 120       | Epipactis      | Epipactis atrorubens      |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 251     | 128       | Epipactis      | Epipactis atrorubens      |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 367     | 166       | Tragopogon     | Tragopogon pratensis      |                  |
| 23         | Jandt & Leonhardt (unpubl.) | 373     | 176       | Tragopogon     | Tragopogon pratensis      |                  |
| 23         | Hagen (1996)                | G04     | 180       | Festuca        | Festuca rupicola          |                  |
| 23         | Hagen (1996)                | G09     | 171       | Anemone        | Pulsatilla vulgaris       |                  |
| 23         | Hagen (1996)                | G15     | 183       | Anemone        | Pulsatilla vulgaris       |                  |
| 23         | Hagen (1996)                | G23     | 290       | Epipactis      | Epipactis atrorubens      |                  |

|    |  |         |      |             |                           |
|----|--|---------|------|-------------|---------------------------|
| 16 | Hagen<br>(1996)                              | Z20     | 377  | Epipactis   | Epipactis<br>atrorubens   |
| 16 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | A_CF5   | 857  | Orchis      | Orchis<br>militaris       |
| 16 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_16A | 2014 | Orchis      | Orchis x<br>hybrida       |
| 16 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_14C | 2004 | Orchis      | Orchis<br>militaris       |
| 16 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_16B | 2015 | Orchis      | Orchis<br>militaris       |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_18A | 2026 | Orchis      | Orchis<br>militaris       |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_18D | 2029 | Orchis      | Orchis<br>purpurea        |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_18E | 2030 | Orchis      | Orchis<br>purpurea        |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_19A | 2032 | Orchis      | Orchis<br>purpurea        |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_19B | 2033 | Orchis      | Orchis<br>militaris       |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_19D | 2035 | Orchis      | Orchis<br>militaris       |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_20A | 2038 | Platanthera | Platanthera<br>chlorantha |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_20C | 2040 | Orchis      | Orchis<br>militaris       |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_20D | 2041 | Orchis      | Orchis<br>militaris       |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_21B | 2045 | Orchis      | Orchis x<br>hybrida       |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_21C | 2046 | Orchis      | Orchis<br>purpurea        |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_22A | 2050 | Orchis      | Orchis<br>purpurea        |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_22B | 2051 | Platanthera | Platanthera<br>chlorantha |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_22E | 2054 | Orchis      | Orchis<br>militaris       |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_23A | 2056 | Orchis      | Orchis<br>purpurea        |

|    |  |                           |      |             |                                  |
|----|--|---------------------------|------|-------------|----------------------------------|
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_23B                   | 2057 | Platanthera | Platanthera<br>chlorantha        |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | CAT_28A                   | 2086 | Orchis      | Orchis<br>militaris              |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | M_CF3                     | 471  | Ulmus       | Ulmus glabra                     |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | M_CF3                     | 495  | Ulmus       | Ulmus glabra                     |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | M_CF3                     | 519  | Ulmus       | Ulmus glabra                     |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | M_CF4                     | 568  | Orchis      | Orchis x<br>hybrida              |
| 43 | Heinrich,<br>Marstaller<br>& Voigt<br>(2012) | M_CF6                     | 570  | Orchis      | Orchis<br>militaris              |
| 43 | Horchler<br>(unpubl.)                        | 67                        | 93   | Callitriche | Callitriche<br>palustris<br>agg. |
| 43 | Horchler<br>(unpubl.)                        | 68                        | 94   | Callitriche | Callitriche<br>palustris<br>agg. |
| 43 | Hüllbusch<br>et al.<br>(2016)                | MW9                       | 28   | Tragopogon  | Tragopogon<br>pratensis          |
| 43 | Kuhn et<br>al. (2011)                        | 4350724.00_5487257<br>.00 | 1608 | Campanula   | Campanula<br>rapunculoides       |
| 74 | Kuhn et<br>al. (2011)                        | 4365134.20_5531963<br>.60 | 1300 | Primula     | Primula veris                    |
| 74 | Kuhn et<br>al. (2011)                        | 4365183.00_5532063<br>.00 | 1301 | Campanula   | Campanula<br>rapunculoides       |
| 19 | Kuhn et<br>al. (2011)                        | 4365308.00_5532308<br>.00 | 1302 | Campanula   | Campanula<br>rapunculoides       |
| 14 | Kuhn et<br>al. (2011)                        | 4377860.10_5547643<br>.00 | 1357 | Primula     | Primula veris                    |
| 14 | Kuhn et<br>al. (2011)                        | 4395362.00_5271657<br>.00 | 2024 | Primula     | Primula<br>elatior               |
| 14 | Kuhn et<br>al. (2011)                        | 4415784.00_5532303<br>.00 | 832  | Primula     | Primula veris                    |
| 14 | Kuhn et<br>al. (2011)                        | 4420009.00_5433917<br>.00 | 3580 | Agrimonia   | Agrimonia<br>eupatoria           |
| 14 | Kuhn et<br>al. (2011)                        | 4421750.00_5573096<br>.00 | 34   | Ajuga       | Ajuga reptans                    |
| 14 | Kuhn et<br>al. (2011)                        | 4450612.00_5509207<br>.00 | 769  | Ajuga       | Ajuga reptans                    |
| 14 | Meineke &<br>Menge<br>(2010)                 | DBF 4                     | 16   | Alchemilla  | Alchemilla<br>vulgaris agg.      |
| 14 | Meineke &<br>Menge<br>(2010)                 | DBF 4                     | 17   | Alchemilla  | Alchemilla<br>vulgaris agg.      |

|    |                                 |          |     |                   |                          |
|----|---------------------------------|----------|-----|-------------------|--------------------------|
| 14 | Meineke & Menge (2010)          | DBF 4    | 18  | Alchemilla        | Alchemilla vulgaris agg. |
| 14 | Meineke & Menge (2010)          | DBF 4    | 19  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 8    | 36  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 8    | 37  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 8    | 38  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 8    | 40  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 10   | 46  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 10   | 47  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 10   | 48  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 10   | 50  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 11   | 51  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 11   | 52  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 11   | 53  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 11   | 55  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 13   | 61  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 13   | 62  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 13   | 63  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Meineke & Menge (2010)          | DBF 13   | 65  | Alchemilla        | Alchemilla vulgaris agg. |
| 55 | Müller (2002)                   | K/SH1    | 119 | Thymus            | Thymus praecox agg.      |
| 55 | Peppler-Lisbach & Könitz (2017) | N 86-106 | 239 | Dicranum          | Dicranum scoparium       |
| 55 | Peppler-Lisbach & Könitz (2017) | N 86-192 | 56  | Euphorbia stricta | Euphrasia stricta        |

|    |                                 |                   |      |                          |                             |                              |
|----|---------------------------------|-------------------|------|--------------------------|-----------------------------|------------------------------|
| 55 | Peppler-Lisbach & Könitz (2017) | N 86-193          | 57   | <i>Euphorbia stricta</i> | <i>Euphrasia stricta</i>    |                              |
| 29 | Peppler-Lisbach et al. (2020)   | B_S69             | 13   | <i>Polytrichum</i>       | <i>Polytrichum commune</i>  |                              |
| 32 | Peppler-Lisbach et al. (2020)   | B_S70             | 14   | <i>Polytrichum</i>       | <i>Polytrichum commune</i>  | <i>Polytrichum formosum</i>  |
| 32 | Peppler-Lisbach et al. (2020)   | B_S82             | 19   | <i>Polytrichum</i>       | <i>Polytrichum formosum</i> |                              |
| 32 | Raehse (2001)                   | M546/50           | 880  | <i>Fragaria</i>          | <i>Fragaria vesca</i>       |                              |
| 44 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_37 | 1825 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 44 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_40 | 1828 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 44 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_41 | 1829 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     | <i>Anemone ranunculoides</i> |
| 36 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_42 | 1830 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     | <i>Anemone ranunculoides</i> |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_43 | 1831 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_44 | 1832 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_45 | 1833 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_46 | 1834 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_47 | 1835 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_48 | 1836 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     | <i>Anemone ranunculoides</i> |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_49 | 1837 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_50 | 1838 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF1_51 | 1839 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF2_30 | 1869 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     | <i>Anemone ranunculoides</i> |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF2_32 | 1871 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     | <i>Anemone ranunculoides</i> |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF2_34 | 1873 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     | <i>Anemone ranunculoides</i> |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF2_35 | 1874 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     | <i>Anemone ranunculoides</i> |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF2_37 | 1876 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     | <i>Anemone ranunculoides</i> |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF2_41 | 1880 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |
| 33 | Schmidt et al. (unpubl.)        | Hünstollen_KF2_42 | 1881 | <i>Anemone</i>           | <i>Anemone nemorosa</i>     |                              |

|    |                      |                   |      |                   |                      |
|----|----------------------|-------------------|------|-------------------|----------------------|
|    | Schmidt et al.       |                   |      |                   | Anemone nemorosa     |
| 33 | (unpubl.)            | Hünstollen_KF2_43 | 1882 | Anemone           | Anemone nemorosa     |
|    | Schmidt et al.       |                   |      |                   | Anemone nemorosa     |
| 33 | (unpubl.)            | Hünstollen_KF2_44 | 1883 | Anemone           | Anemone nemorosa     |
|    | Stroh                |                   |      | Tortella tortuosa | Tortella inclinata   |
| 33 | (2013)               | DBF_11            | 55   |                   |                      |
|    | Strubelt & Zacharias |                   |      |                   | Campanula trachelium |
| 33 | (2015)               | 8                 | 41   | Campanula         |                      |
| 33 |                      |                   |      |                   |                      |
| 33 |                      |                   |      |                   |                      |
| 46 |                      |                   |      |                   |                      |
| 47 |                      |                   |      |                   |                      |