

Turboveg v3

a gateway to vegetation plot data

Stephan Hennekens

Koblenz, 25th of February 2014

EXPORT MANAGE HELP BioScore2

Selected plot observations 'Calluna vulgaris'

Distribution Metadata Synopsis

Relevé number Country code Biblorefence Nr. table Species name

ID	ObsID	Relevé number	Country code	Biblorefence	Nr. table	Species name
81562	81562	966	Slovak Rep...			Achillea millefolium agg.
81563	81563	971	Slovak Rep...	Chytrý M. et...	7	Allium senescens ssp. montanum
81570	81570	401732	Slovak Rep...			Anthericum ramosum
81593	81593	402152	Slovak Rep...	Accessible data		Anthoxanthum odoratum
81602	81602	402162	Slovak Rep...	Accessible data		Arrhenatherum elatius
81864	81864	47200	Slovak Rep...	Accessible data		Calluna vulgaris
81869	81869	478211	Slovak Rep...	Accessible data		Carex muricata agg.
81870	81870	478212	Slovak Rep...	Accessible data		Clinopodium vulgare
81892	81892	478211	Slovak Rep...	Rybňásek K.	13	Cytisus nigricans ssp. nigricans
81906	81906	478206	Slovak Rep...	Accessible data		Euphorbia cyparissias
81920	81920	478287	Slovak Rep...	Accessible data		Festuca riparia
81921	81921	478282	Slovak Rep...	Accessible data		Genista tinctoria
81948	81948	478324	Slovak Rep...	Accessible data		Heracleum sphondylium
82006	82006	478393	Slovak Rep...	Accessible data		Lunaria annua
82086	82086	600132	Slovak Rep...	Bosáková E.	12	Lysimachia nemorum
82570	82570	601614	Slovak Rep...	Eláj P.	2	Lychnis viscaria
82764	82764	602056	Slovak Rep...	Umrada J.	0.95	Odontites ruber agg.
82775	82775	602074	Slovak Rep...	Umrada J.	1	Paeonia lactiflora
82997	82997	602495	Slovak Rep...	Jurko A., Pe...	4	Peucedanum oreoselinum
82998	82998	602460	Slovak Rep...	Jurko A., Pe...	4	Rubus fruticosus agg.
82999	82999	602461	Slovak Rep...	Jurko A., Pe...	4	Securigera varia
83000	83000	602467	Slov Slovak Republic	Jurko A., Pe...	5	Seseli osseum
83001	83001	602474	Slovak Rep...	Jurko A., Pe...	5	Thymus pulegioides
83002	83002	602474	Slovak Rep...	Jurko A., Pe...	6	Trifolium campestre
83003	83003	602477	Slovak Rep...	Jurko A., Pe...	6	Verbasum chiaxi ssp. austriacum
83048	83048	602478	Slovak Rep...	Jurko A., Pe...	6	Veronica chaenoides agg.

ALTERA Selected plot observations



What's on the menu

- Why a new version?
- Comparison version 2 and 3
- Database model v3
- Features v3
- Examples of prototype databases
- Questions

What is Turboveg?

The screenshot shows the Turboveg software interface. The main window displays a database table titled "Database: Antdio". The table has columns: Relevé number, Cover abundance scale, Country code, Biblio reference, Nr. table in publ., Nr. relevé in table, Project code, Author code, and Date (year/month/day). A row for Relevé number 84 is selected and highlighted in yellow. To the right of the main table, there is a "Selected relevés: 2" panel showing "Relevé: 120" with two entries: "Species" and "Antennaria dioica". Below the main table, another table is partially visible with rows numbered 2040 through 4431. The bottom of the screen shows a toolbar with various icons and a status bar with the text "Press F1 for Help".

Relevé number	Cover abundance scale	Country code	Biblio reference	Nr. table in publ.	Nr. relevé in table	Project code	Author code	Date (year/month/day)
80	01				001	0901	1937/06/07
81	01				001	0901	1937/06/07
82	01				001	0901	1937/05/30
84	01				001	0901	1937/05/30

Species	Layer	Cr
Antennaria dioica		
Carex arenaria		1

2040	01				001	0901	1951/05/10
2042	01				001	0901	1951/05/27
2101	01				001	0901	1951/08/26
2132	01				001	0901	1951/09/11
2556	01				001	0901	1957/ /
2928	01				001	0901	1958/06/26
3049	01				001	0901	1958/08/18
3229	01				001	0901	1960/05/05
3267	01				001	0901	1960/06/14
3420	01				001	0901	1961/04/21
4431	02				001	0901	1974/07/10

Header data Last edited by weeda002 on 24/03/2011 6/216 18/02/2014 Floraland Europe ReadWrite Form edit

Press F1 for Help

Species data Rec: 1/12

Num Caps Ins 25/02/2014

Motivation to create a new version



- The Dutch National Vegetation Database provides information on the distribution and range of Natura 2000 habitats to report every 6 years to the EU. Therefore a 'quality status A' is nowadays required.
- Turboveg v2 databases simply do not meet the required data quality.
- Excellent alibi to get rid of legacy software and legacy dBase files.
- The establishment of EVA (European Vegetation Archive), an initiative of the EVS.

Development steps

- First step was the development of a database model (prototype)
- In the second step a software prototype (Turboveg v3) was developed to feed and test the model

Comparison version 2 and 3

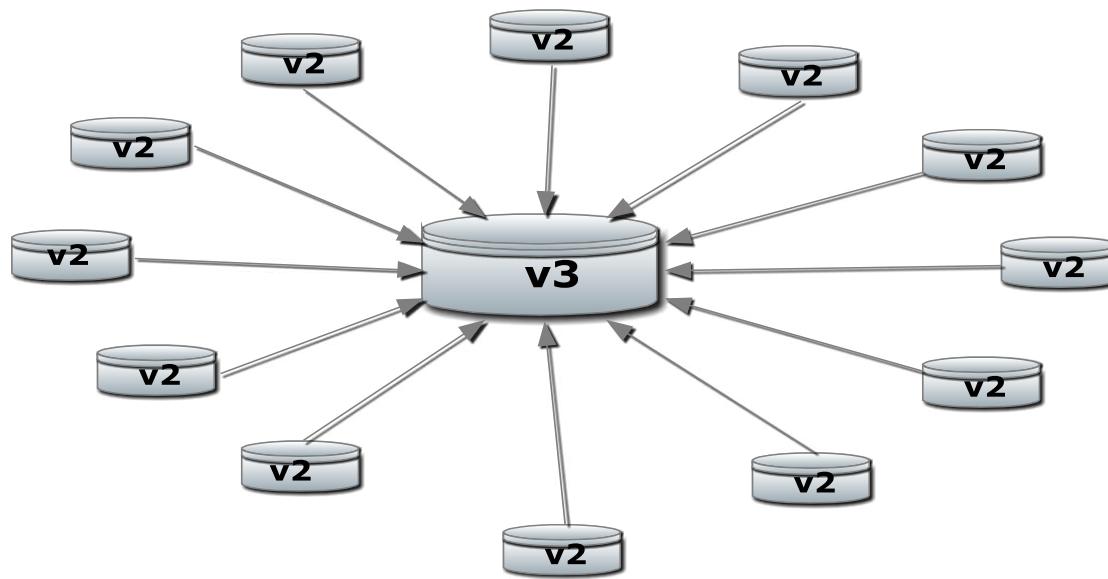
v3	v2
A single file containing all data (SQLite)	Numerous files (dBase III+)
Stable transactional SQL database	Database and index sensitive to corruption
Data integrity guaranteed thought constraints in the database (foreign keys)	Constraints are quite 'relaxed' and defined in the Turboveg program
Unicode support	-
Support for NULL values (missing values)	-
Integrated GIS with support for many different projections, many different files types	GIS dating form Stone Age
Integrated Google Maps	Poor
Native support for Excel files (import/export)	Only support for these files when Excel is installed
Plots and related plot observations	Plot observations only
Support for metadata on various levels	Poor
Support for non-matching taxa (original taxon concepts)	Poor
Changes in data are preserved	-
Support for multiple taxonomies (only in connection to the SynBioSys taxon database)	-

Comparison version 2 and 3

v3	v2
Support for GBIF species distribution data [experimental]	-
Support for Maxent modeller [experimental]	-
Sometimes slower, sometimes faster	Sometimes faster, sometimes faster

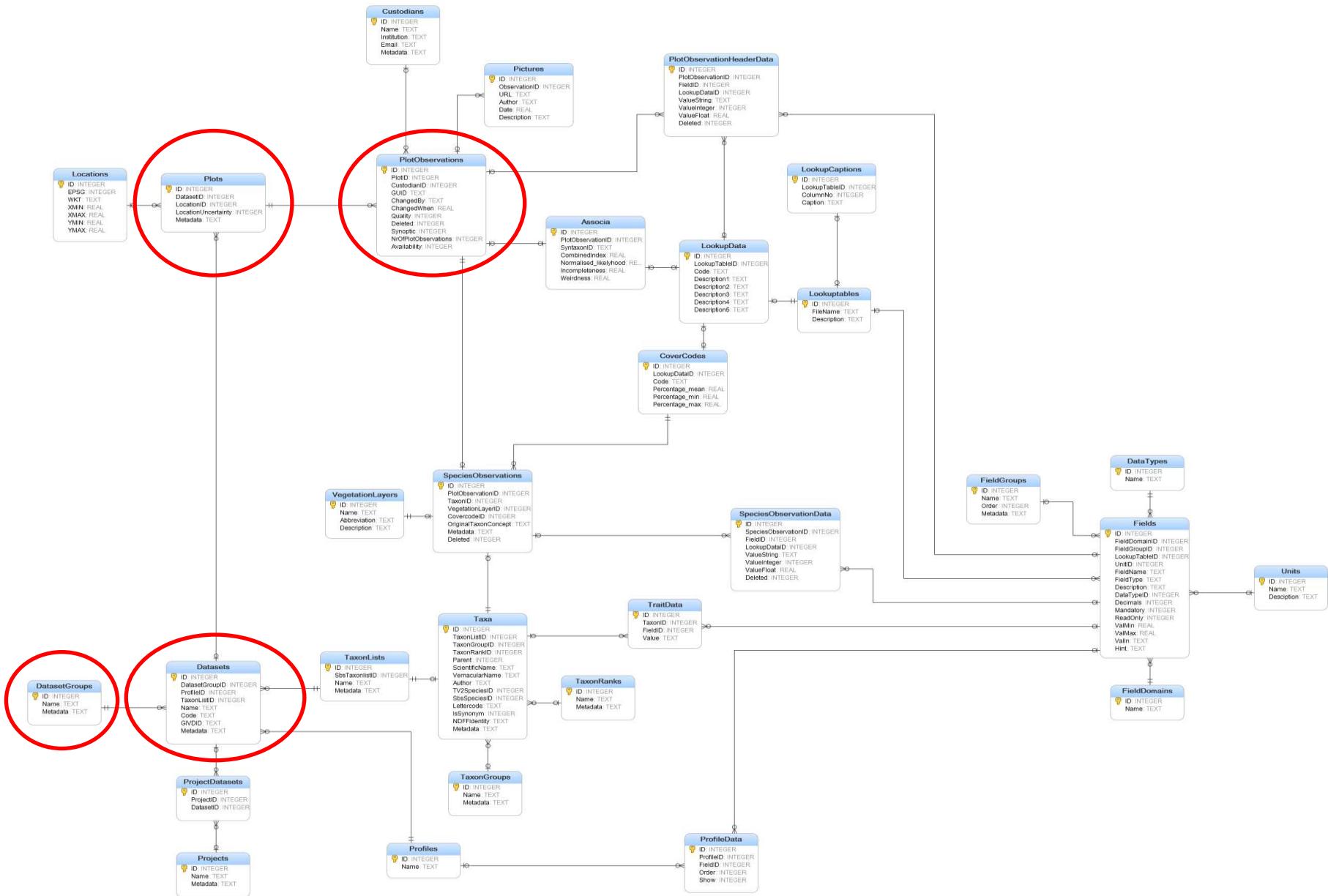
Jargon	
Dataset	Database
Dataset groups	Databases grouped in folders
Plots & plot observations	Relevés

The challenge

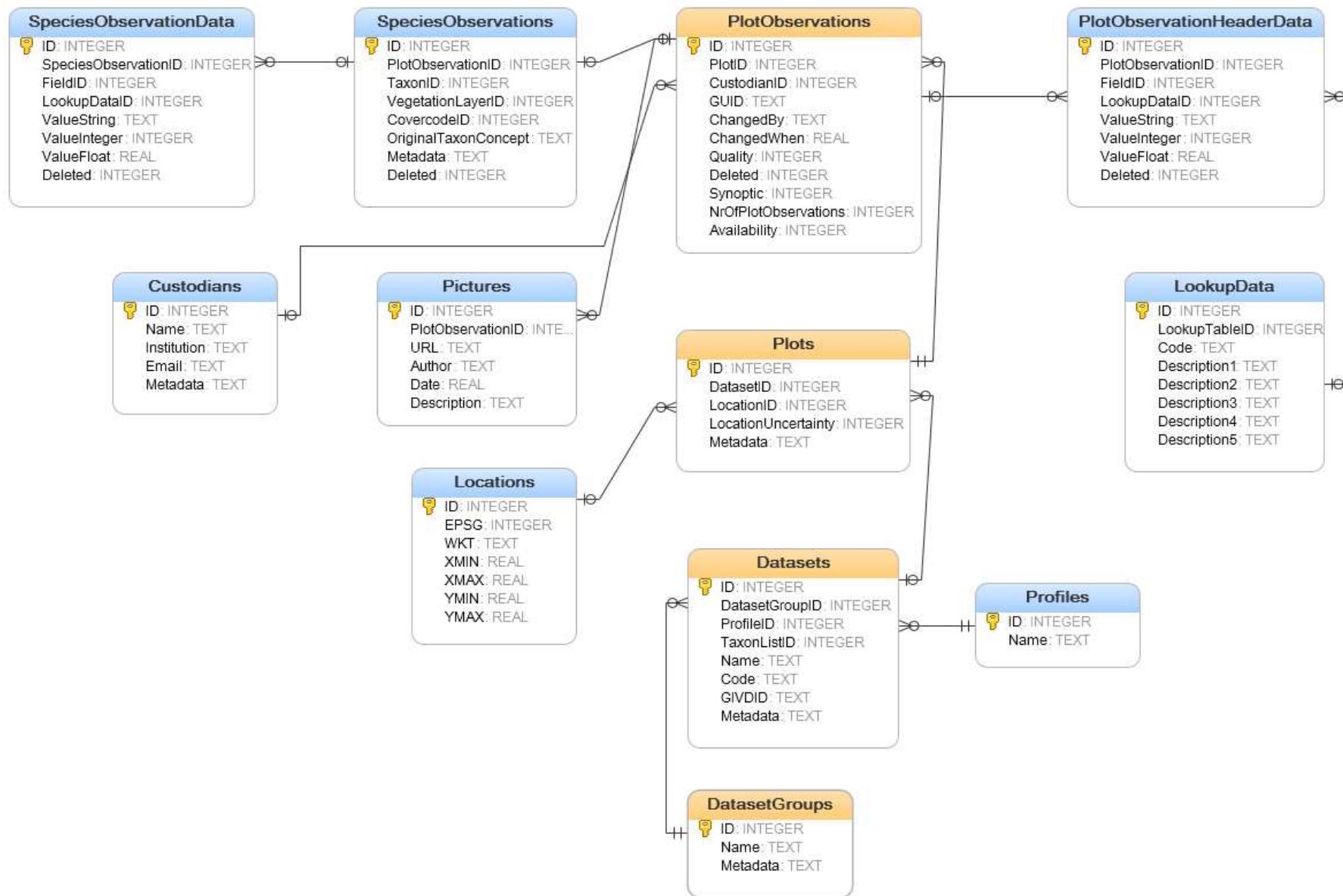


To set up a single SQL-based database (model) dealing with multiple Turboveg2 databases, with potentially different databases structures and potentially different taxonomies.

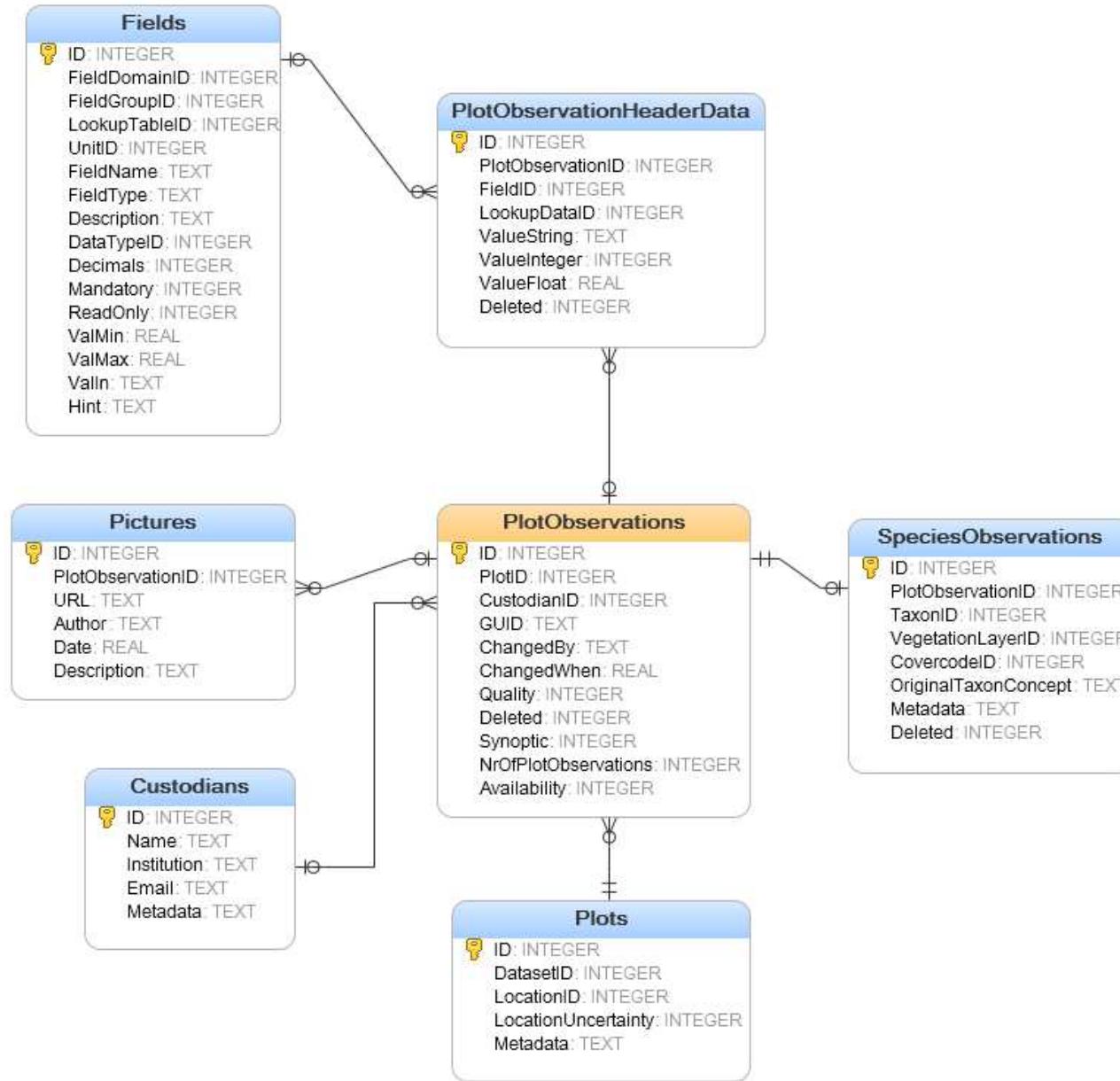
Database model Turboveg 3 – overview v0.8



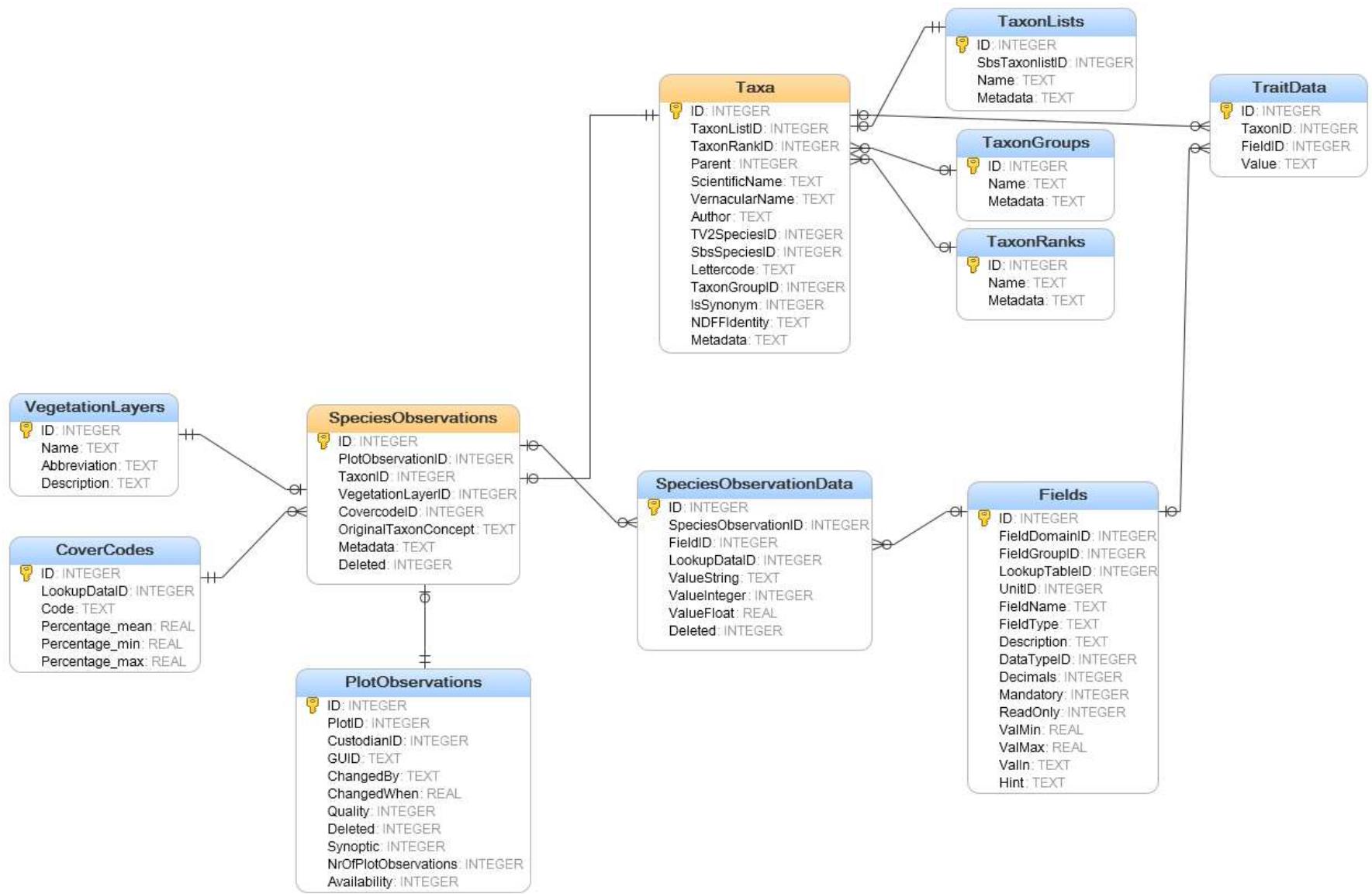
Database model - core



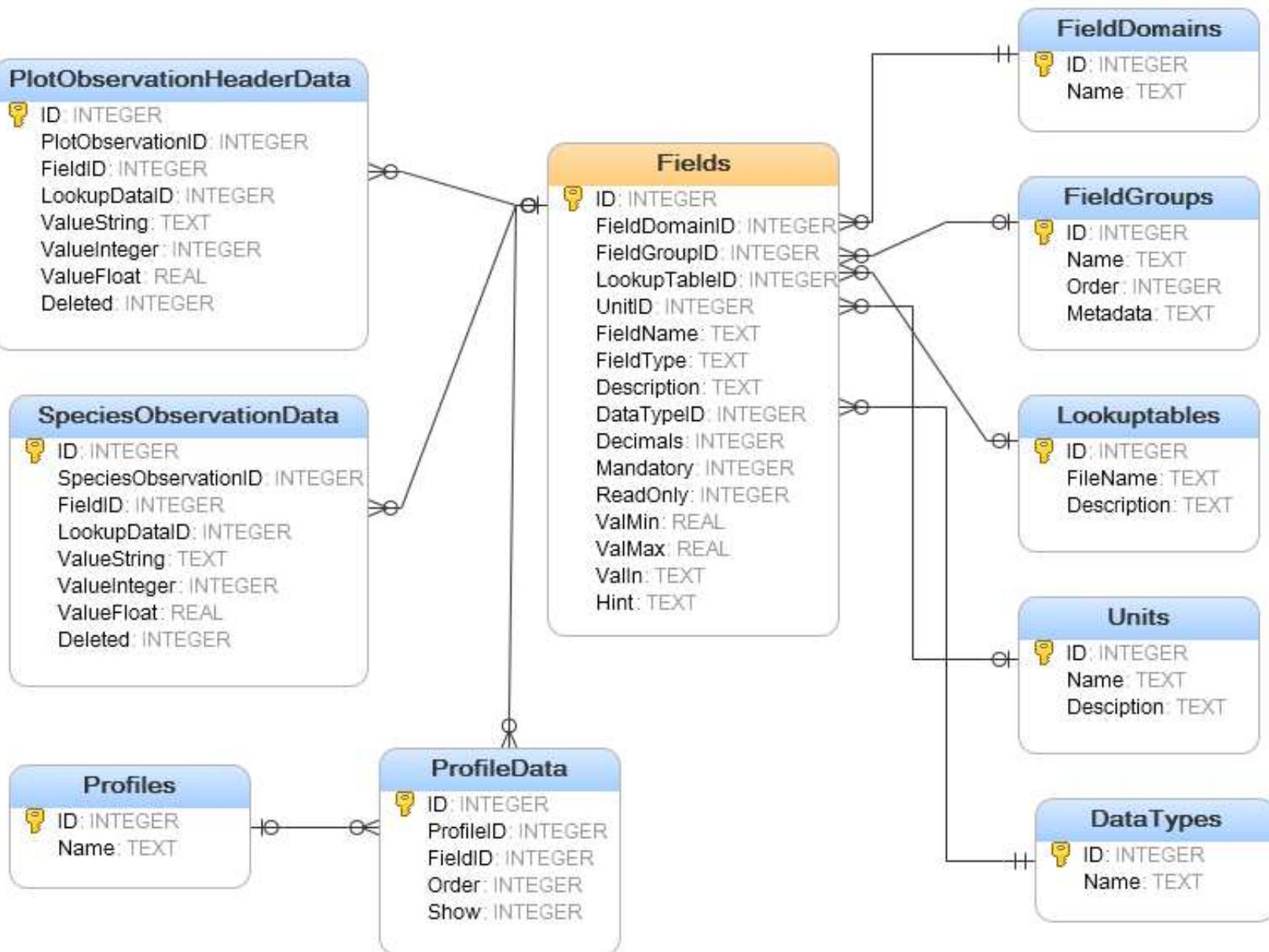
Database model – header data



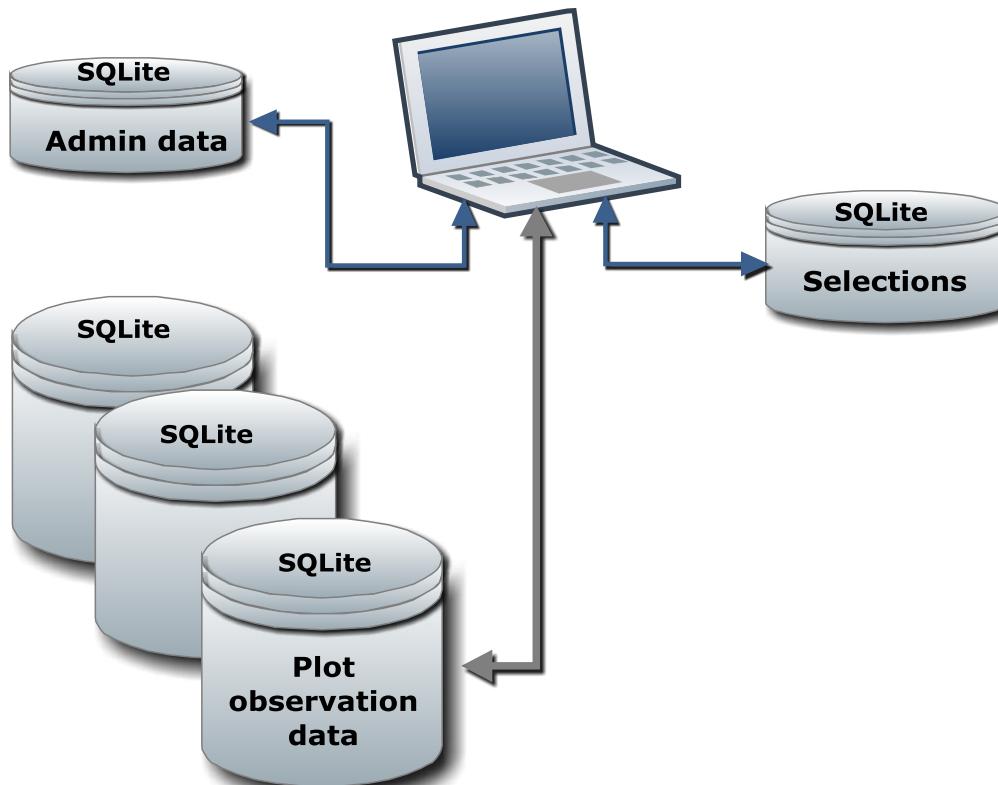
Database model – species data



Database model – fields



Client architecture (local only)



General structure Turboveg3

- Data
- Edit
- Import
- Select
- Export
- Manage
- Help

Data

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

Dataset 'Czechia_nvd'

Metadata

- Search Ctrl+S
- + Expand index
- Collapse index
- Open dataset
- Close dataset
- New dataset
- Delete dataset
- New dataset group
- Delete dataset group
- New database
- Delete database
- Empty database
- Compress database
- Close application

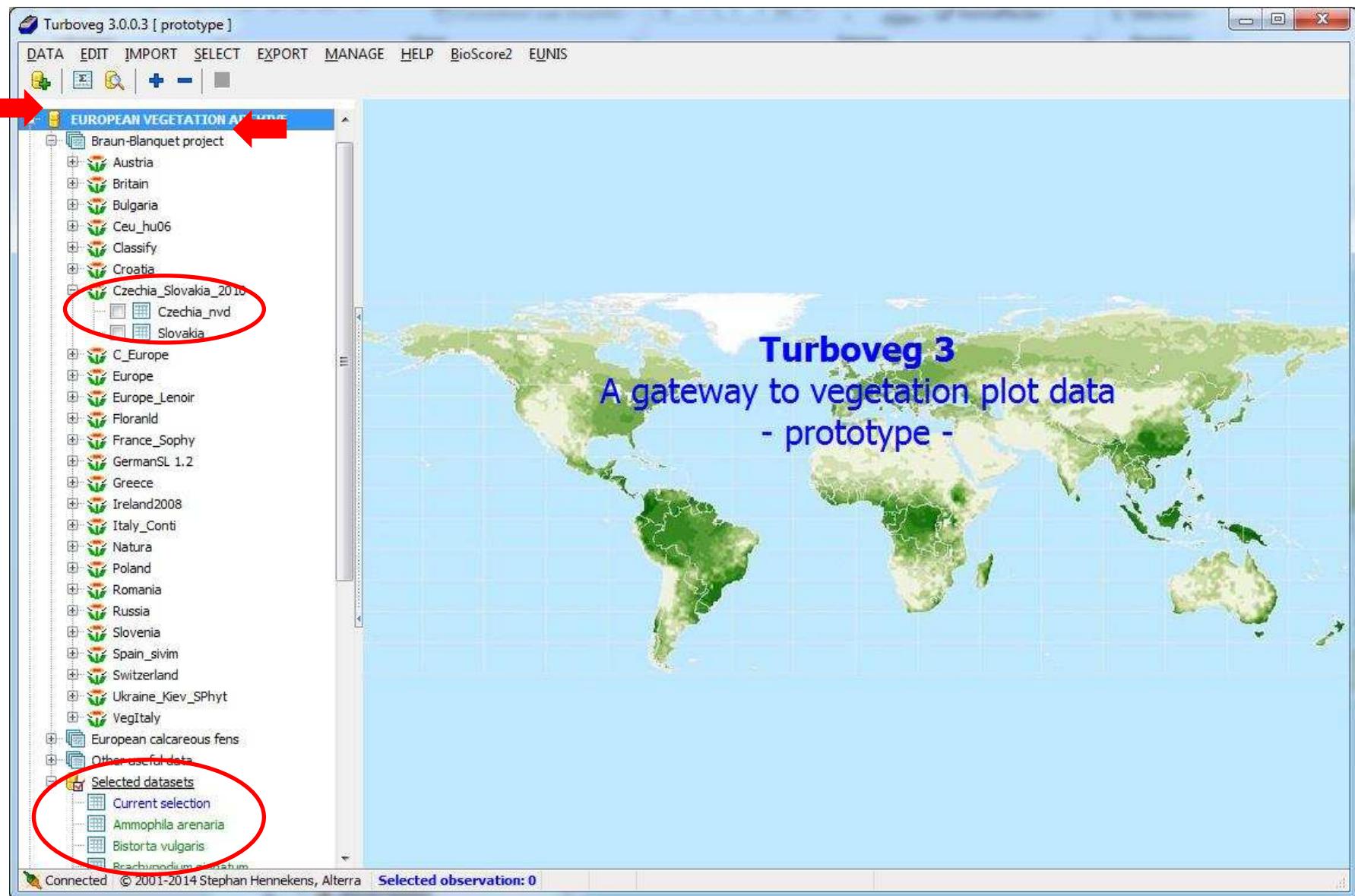
Fagus sylvatica
Genista anglica
Gentiana pneumonanthe
H4030
Isoetes lacustris
Juncus bulbosus
Juncus trifidus
Littorella uniflora
Lobelia dortmanna
Myriophyllum alterniflorum
Pilularia globulifera
Potamogeton polygonifolius

TEST

Turboveg 3
A gateway to vegetation plot data
- prototype -

Connected © 2001-2014 Stephan Hennekens, Alterra Selected observation: 0

Data navigator (index of datasets)



Datasets

Lets open a dataset to see what's in...



Plots & plot observations

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

Dataset 'VOORNEPQ'

Plot observations Distribution Metadata Synopsis

Search <All columns> Search from current position

PlotID	ObsID	Oprnamenummer	PQ_NR	Biblio referentie	Bedeckingsschaal	Project (code)	Auteur (code)	Datum (jaar/maand/dag)	X-coo
461168	461168	70001	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1964	
461168	461169	70002	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1965	
461168	461170	70003	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1966	
461168	461171	70004	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1967	
461168	461172	70005	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1968	
461168	461173	70006	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1970	
461168	461174	70007	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1971	
461168	461175	70008	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1974	
461168	461176	70009	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1975	
461168	461177	70010	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1976	
461168	461178	70011	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1978	
461168	461179	70012	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1979	
461168	461180	70013	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1980	
461168	461181	70014	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1981	
461168	461182	70015	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1982	
461168	461183	70016	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1984	
461168	461184	70017	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1985	
461168	461185	70018	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1986	
461168	461186	70019	1		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1988	
461187	461187	70020	2		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1964	
461187	461188	70021	2		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1965	
461187	461189	70022	2		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1966	
461187	461190	70023	2		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1967	
461187	461191	70024	2		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1968	
461187	461192	70025	2		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1970	
461187	461193	70026	2		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1971	
461187	461194	70027	2		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1974	
461187	461195	70028	2		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1978	
461187	461196	70029	2		Braun/Blanquet...	Oostvoorne...	Laan, D. va...	1-1-1979	

Selected datasets
Current selection
Bes
EUROPEAN VEGETATION ARCHIVE
TEST

Connected © 2001-2014 Stephan Hennekens, Alterra Selected observation: 0 Observation 1/1175

Plot observations – header & species data

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

Dataset 'Czechia_nvd'

DUTCH NATIONAL VEGETATION
EUROPEAN VEGETATION ARC

Braun-Blanquet project

- Austria
- Britain
- Bulgaria
- Ceu_hu06
- Classify
- Croatia
- Czechia_Slovakia_2010
 - Czechia_nvd
 - Slovakia
- C_Europe
- Europe
- Europe_Lenoir
- Floranld
- France_Sophy
- GermanSL 1.2
- Greece
- Ireland2008
- Italy_Conti
- Natura
- Poland
- Romania
- Russia
- Slovenia
- Spain_sivim
- Switzerland
- Ukraine_Kiev_SPphyt
- VegItaly
- European calcareous fens
- Other useful data
- Selected datasets
 - Current selection
 - Ammonila arenaria

Plot observations Distribution Metadata Synopsis

Search <All columns>

19 species

PlotID	ObsID	Relevé number	Country code	Biblioreference	Nr. table in publ.	Nr. relev	Species name	Stratum	Cover	Or	
704025	704025	109933	Czech Republic	Prausová R.	2	2	<i>Alisma plantago-aquatica</i>	hl	+		
704026	704026	109951	Czech Republic	Grüll F.	p.11	3	<i>Cardamine pratensis</i>	hl	+		
704027	704027	109959	Czech Republic	Grüll F.	p.7	3	<i>Carex acuta</i>	hl	2		
704028	704028	109965	Czech Republic	Grüll F.	p.11	6	<i>Carex acutiformis</i>	hl	1		
704029	704029	109969	Czech Republic	Grüll F.	p.13	4	<i>Carex rostrata</i>	hl	1		
704030	704030	109971	Czech Republic	Grüll F.	p.16	2	<i>Carex vesicaria</i>	hl	4		
704031	704031	109976	Czech Republic	Grüll F.	1	4	<i>Deschampsia cespitosa</i>	hl	+		
704032	704032	109989	Czech Republic	Grüll F.	Grüll F. (1984)			tris	hl	+	
704033	704033	110003	Czech Republic	Grüll F.	Inventarizaéní průzkum SPR Ěerníè.			stre	hl	+	
704034	704034	110007	Czech Republic	Grüll F.	- Ms. [Inventariz. prùzk.; depon in: AOPK ÈR, Praha.]			ria	hl	1	
704035	704035	110008	Czech Republic	Grüll F.	5	1	<i>Galium palustre</i>	hl	1		
704036	704036	110013	Czech Republic	Grüll F.	6	3	<i>Glycine max</i>	hl	1		
704037	704037	110016	Czech Republic	Grüll F.	8	1	<i>Lycopus europaeus</i>	hl	+		
704038	704038	110023	Czech Republic	Grüll F.	p.5	1	<i>Lysimachia vulgaris</i>	hl	+		
704039	704039	110036	Czech Republic	Grüll F.	p.10	3	<i>Myosotis palustris agg.</i>	hl	+		
704040	704040	110050	Czech Republic	Grüll F.	p.19	4	<i>Persicaria amphibia</i>	hl	+		
704041	704041	110051	Czech Republic	Grüll F.	1	1	<i>Phalaris arundinacea</i>	hl	1		
704042	704042	110053	Czech Republic	Grüll F.	1	3	<i>Stachys palustris</i>	hl	1		
704043	704043	110064	Czech Republic	Grüll F.	3	4	<i>Typha latifolia</i>	hl	+		
704044	704044	110066	Czech Republic	Grüll F.	p.22	1					
704045	704045	110069	Czech Republic	Grüll F.	p.26	1					
704046	704046	110078	Czech Republic	Grüll F.	p.13	1					
704047	704047	110089	Czech Republic	Grüll F.	p.8	1					
704048	704048	110096	Czech Republic	Grüll F.	p.15	1					
704049	704049	110109	Czech Republic	Grüll F.	p.13	1					
704050	704050	110110	Czech Republic	Grüll F.	p.15	1					
704051	704051	110111	Czech Republic	Grüll F.	p.17	1					
704052	704052	110116	Czech Republic	Grüll F.	p.21	2					
704053	704053	110121	Czech Republic	Grüll F.	p.17	2					

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Plot observations – header & species data

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

Dataset 'Croatia_mix'

36 species

PlotID ObsID Relevé number Country code Biblioreference Nr. tz Species name Stratum Cover Original species name

PlotID	ObsID	Relevé number	Country code	Biblioreference	Nr. tz	Species name	Stratum	Cover	Original species name
181051	181051	2	Croatia			<i>Centaurea jacea</i> inkl. <i>C. nigr</i>	-	1	<i>Centaurea jacea</i> inkl. <i>C. nigr</i>
181052	181052	3	Croatia			<i>Medicago lupulina</i>	-	1	<i>Medicago lupulina</i>
181053	181053	4	Croatia			<i>Ajuga reptans</i>	-	+	
181054	181054	5	Croatia			<i>Alopecurus pratensis</i>	-	2	
181055	181055	6	Croatia			<i>Anthoxanthum odoratum</i>	-	+	
181056	181056	7	Croatia			<i>Bellis perennis</i>	-	2	
181057	181057	8	Croatia			<i>Cichorium intybus</i>	-	2	
181058	181058	9	Croatia			<i>Colchicum autumnale</i>	-	1	
181059	181059	10	Croatia			<i>Crepis biennis</i>	-	3	
181060	181060	11	Croatia			<i>Dactylis glomerata</i>	-	+	
181061	181061	12	Croatia			<i>Daucus carota</i>	-	4	
181062	181062	13	Croatia			<i>Festuca pratensis</i>	-	1	
181063	181063	14	Croatia			<i>Festuca rubra</i>	-	4	
181064	181064	15	Croatia			<i>Galium mollugo</i>	-	3	
181065	181065	16	Croatia			<i>Galium verum</i>	-	2	
181066	181066	17	Croatia			<i>Holcus lanatus</i>	-	1	
181067	181067	18	Croatia			<i>Leontodon hispidus</i>	-	1	
181068	181068	19	Croatia			<i>Lolium perenne</i>	-	4	
181069	181069	20	Croatia			<i>Lotus corniculatus</i>	-	2	
181070	181070	21	Croatia			<i>Lychnis flos-cuculi</i>	-	1	
181071	181071	22	Croatia			<i>Myosotis arvensis</i>	-	+	
181072	181072	23	Croatia			<i>Ononis arvensis</i>	-	2	
181073	181073	24	Croatia			<i>Plantago lanceolata</i>	-	1	
181074	181074	25	Croatia			<i>Poa pratensis</i>	-	1	
181075	181075	26	Croatia			<i>Potentilla reptans</i>	-	1	
181076	181076	27	Croatia			<i>Ranunculus acris</i>	-	3	
181077	181077	28	Croatia			<i>Ranunculus repens</i>	-	+	
181078	181078	29	Croatia			<i>Rumex acetosa</i>	-	2	
181079	181079	30	Croatia			<i>Rumex crispus</i>	-	+	

Connected © 2001-2014 Stephan Hennekens, Alterra Selected observation: 0 Observation 2/5057

Plot observations – data is preserved

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

DUTCH NATIONAL VEGETATION
EUROPEAN VEGETATION ARC

Braun-Blanquet project

- Austria
- Britain
- Bulgaria
 - Bulgaria_forests
 - Bulgaria_Iva
 - Bulgaria_Iva2
- Ceu_hu06
- Classify
- Croatia
 - Croatia_mix**
- Czechia_Slovakia_2010
- C_Europe
- Europe
- Europe_Lenoir
- Floriland
- France_Sophy
- GermanSL 1.2
- Greece
- Ireland2008
- Italy_Conti
- Natura
- Poland
- Romania
- Russia
- Slovenia
- Spain_sivim
- Switzerland
- Ukraine_Kiev_SPphyt
- VegItaly

European calcareous fens

Other useful data

Selected datasets

Plot observations Distribution Metadata Synopsis

Dataset 'Croatia_mix'

PlotID ObsID Relevé number Country code Bibliographic reference Nr. to Species name Stratum Cover Original species name

PlotID	ObsID	Relevé number	Country code	Bibliographic reference	Nr. to	Species name	Stratum	Cover	Original species name
181051	181051	2	Montenegro			<i>Centaurea jacea</i> incl. <i>C. nigra</i>	-	±	<i>Centaurea jacea</i> incl. <i>C. nigra</i>
181052	181052	3	Croatia			<i>Medicago lupulina</i>	-	±	<i>Medicago lupulina</i>
181053	181053	4	Croatia			<i>Ajuga reptans</i>	-	+	
181054	181054	5	Croatia			<i>Alopecurus pratensis</i>	-	2	
181055	181055	6	Croatia			<i>Anthoxanthum odoratum</i>	-	+	
181056	181056	7	Croatia			<i>Bellis perennis</i>	-	2	
181057	181057	8	Croatia			<i>Cicerbitum intybus</i>	-	2	
181058	181058	9	Croatia			<i>Colchicum autumnale</i>	-	±	
181059	181059	10	Croatia			<i>Eryngium biennis</i>	-	3	
181060	181060	11	Croatia			<i>Dactylis glomerata</i>	-	+	
181061	181061	12	Croatia			<i>Dauvera carota</i>	-	4	
181062	181062	13	Croatia			<i>Festuca pratensis</i>	-	±	
181063	181063	14	Croatia			<i>Festuca rubra</i>	-	4	
181064	181064	15	Croatia			<i>Galium mollugo</i>	-	3	
181065	181065	16	Croatia			<i>Galium verum</i>	-	2	
181066	181066	17	Croatia			<i>Holcus lanatus</i>	-	±	
181067	181067	18	Croatia			<i>Leontodon hispidus</i>	-	±	
181068	181068	19	Croatia			<i>Lolium perenne</i>	-	4	
181069	181069	20	Croatia			<i>Lotus corniculatus</i>	-	2	
181070	181070	21	Croatia			<i>Lychnis flos-cuculi</i>	-	±	
181071	181071	22	Croatia			<i>Myosotis arvensis</i>	-	+	
181072	181072	23	Croatia			<i>Ononis arvensis</i>	-	2	
181073	181073	24	Croatia			<i>Plantago lanceolata</i>	-	±	
181074	181074	25	Croatia			<i>Poa pratensis</i>	-	±	
181075	181075	26	Croatia			<i>Potentilla reptans</i>	-	±	
181076	181076	27	Croatia			<i>Ranunculus acris</i>	-	3	
181077	181077	28	Croatia			<i>Ranunculus repens</i>	-	+	
181078	181078	29	Croatia			<i>Rumex acetosa</i>	-	2	
181079	181079	30	Croatia			<i>Rumex crispus</i>	-	+	

Connected © 2001-2014 Stephan Hennekens, Alterra Selected observation: 0 Observation 2/5057

Data availability

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

DUTCH NATIONAL VEGETATION
EUROPEAN VEGETATION ARC

Semi-restricted access

Un-restricted access

Full-restricted access

Dataset 'Netherlands'

PlotID ObsID Relevé number Country code Biblioreference Nr. table in publ. Nr. relevé in table Cover z Species name Stratum C

PlotID	ObsID	Relevé number	Country code	Biblioreference	Nr. table in publ.	Nr. relevé in table	Cover z	Species name	Stratum	C
516103	516103	819	Netherlands	Westhoff, V....			Bra	Acer platanoides	t1	+
516104	516104						Bra	Aegopodium podagraria	-	1
516105	516105						Bra	Alopecurus pratensis	-	+
516106	516106	4825	Netherlands	Hommel, P....			Bra	Anthriscus sylvestris	-	2
516107	516107	4826	Netherlands	Hommel, P....			Bra	Arum italicum	-	+
516108	516108	4827	Netherlands	Hommel, P....			Bra	Corydalis cava	-	2
516109	516109						Bra	Corydalis solida	-	+
516110	516110						Bra	Eranthis hyemalis	-	1
516111	516111	6025	Netherlands	Zonneveld, I...			Bra	Eryngium praelongum	-	1
516112	516112	6377	Netherlands				Bra	Fragaria vesca	-	+
516113	516113	6379	Netherlands				Bra	Fraxinus excelsior	t1	2
516114	516114	6380	Netherlands				Bra	Galanthus nivalis	-	+
516115	516115						Bra	Galium aparine	-	+
516116	516116						Bra	Geum urbanum	-	+
516117	516117	6390	Netherlands				Bra	Glechoma hederacea	-	+
516118	516118	6392	Netherlands				Bra	Ilex aquifolium	s1	+
516119	516119	6692	Netherlands	Held, A.J. d...			Bar	Narcissus pseudonarcissus	-	+
516120	516120	6693	Netherlands	Held, A.J. d...			Bar	Ornithogalum umbellatum	-	+
516121	516121	6815	Netherlands	Weeda, E.J.			Lon	Poa trivialis	-	1
516122	516122	6817	Netherlands	Weeda, E.J.			Lon	Prunus padus	s1	+
516123	516123	7000	Netherlands				Bra	Pulmonaria officinalis	-	+
516124	516124	7001	Netherlands				Bra	Quercus robur	t1	+
516125	516125	7004	Netherlands				Bra	Ranunculus ficaria	-	4
516126	516126	7012	Netherlands				Bra	Rumex obtusifolius	-	1
516127	516127	7015	Netherlands				Bra	Sambucus nigra	s1	+
516128	516128	7018	Netherlands				Bra	Stellaria media	-	+
516129	516129	7020	Netherlands				Bra	Taraxacum sectie Ruderalia	-	1
516130	516130	7225	Netherlands	Schaminée, ...			Bra	Tulipa sylvestris	-	1
516131	516131	7227	Netherlands	Schaminée, ...			Bra			

Connected © 2001-2014 Stephan Hennekens, Alterra Selected plot observations: 5 Observation 3/100080

Plot observations – location

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

DUTCH NATIONAL VEGETATION
EUROPEAN VEGETATION ARC

Braun-Blanquet project

- Austria
- Britain
- Bulgaria
- Ceu_hu06
- Classify
- Croatia
- Czechia_Slovakia_2010
 - Czechia_nvd**
 - Slovakia
- C_Europe
- Europe
- Europe_Lenoir
- Floranld
- France_Sophy
- GermanSL 1.2
- Greece
- Ireland2008
- Italy_Conti
- Natura
- Poland
- Romania
- Russia
- Slovenia
- Spain_sivim
- Switzerland
- Ukraine_Kiev_SPPhyt
- VegItaly

European calcareous fens

Other useful data

Selected datasets

- Current selection
- Ammonihila arenaria

Plot observations Distribution Metadata Synopsis

Dataset 'Czechia_nvd'

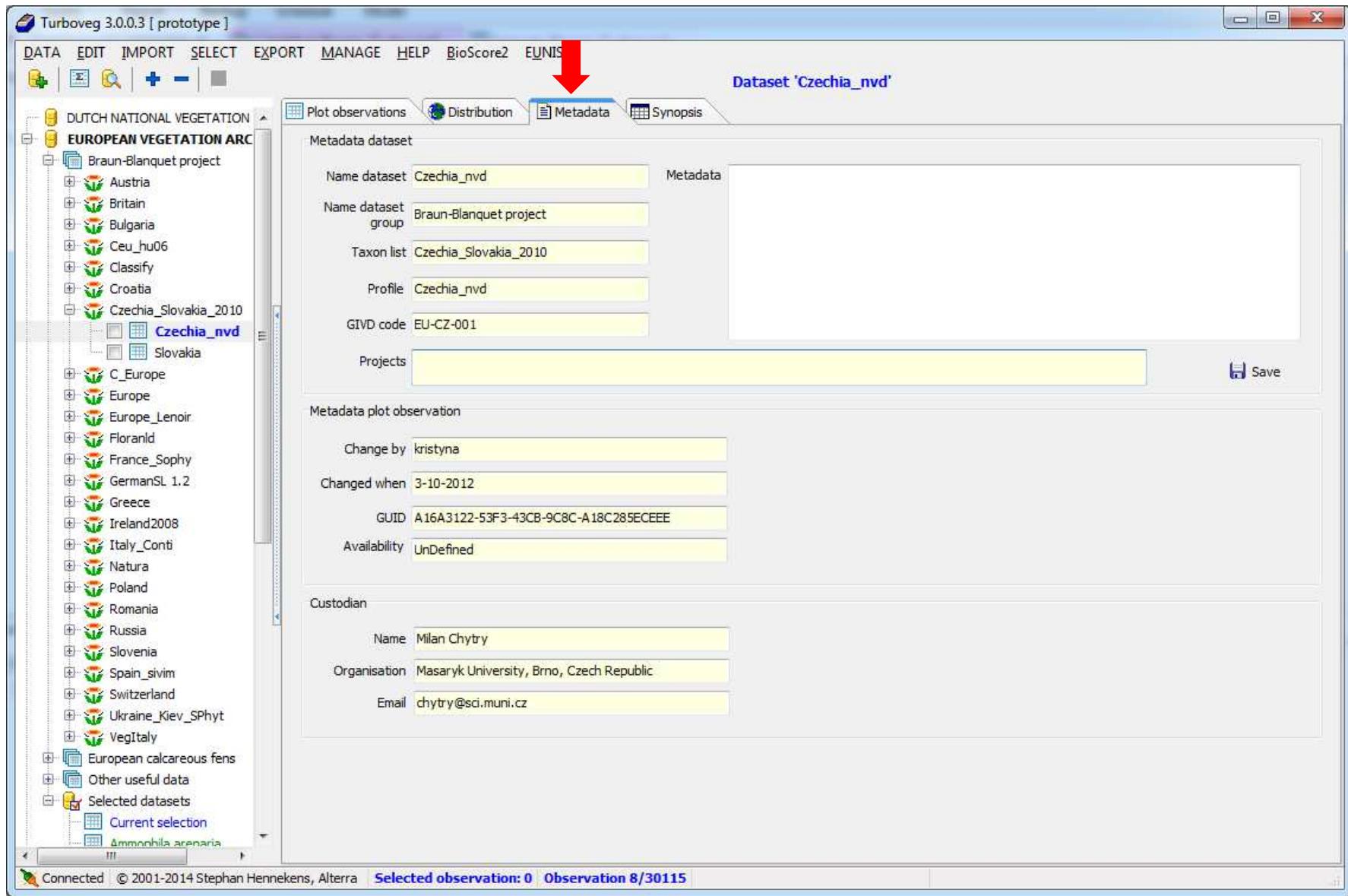
Map Satellite OpenStreetMap

Google

Connected © 2001-2014 Stephan Hennekens, Alterra Selected plot observations: 45214 Observation 3875/30115 Terms of Use

A red arrow points to the 'Distribution' button in the top menu bar.

Plot observations – metadata



The screenshot shows the Turboveg 3.0.0.3 [prototype] application window. The top menu includes DATA, EDIT, IMPORT, SELECT, EXPORT, MANAGE, HELP, BioScore2, and EUINS. The left sidebar displays a tree view of vegetation datasets under 'EUROPEAN VEGETATION ARC', including 'Braun-Blanquet project' and various country-specific datasets like Austria, Britain, Bulgaria, etc. The main workspace is titled 'Dataset 'Czechia_nvd''. The 'Metadata' tab is currently selected, indicated by a red arrow. The 'Metadata dataset' section contains fields for Name dataset (Czechia_nvd), Name dataset group (Braun-Blanquet project), Taxon list (Czechia_Slovakia_2010), Profile (Czechia_nvd), GIVD code (EU-CZ-001), and Projects (empty). The 'Metadata plot observation' section includes fields for Change by (kristyna), Changed when (3-10-2012), GUID (A16A3122-53F3-43CB-9C8C-A18C285ECEEE), and Availability (UnDefined). The 'Custodian' section lists Name (Milan Chytry), Organisation (Masaryk University, Brno, Czech Republic), and Email (chytry@sci.muni.cz). The bottom status bar indicates 'Connected' and the copyright notice '© 2001-2014 Stephan Hennekens, Alterra'. It also shows 'Selected observation: 0' and 'Observation 8/30115'.

Plot observations – synopsis

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP BioScore2 EUNIS

DUTCH NATIONAL VEGETATION
EUROPEAN VEGETATION ARC

Braun-Blanquet project

- Austria
- Britain
- Bulgaria
- Ceu_hu06
- Classify
- Croatia
- Czechia_Slovakia_2010
 - Czechia_nvd
 - Slovakia
- C_Europe
- Europe
- Europe_Lenoir
- Floranld
- France_Sophy
- GermanSL 1.2
- Greece
- Ireland2008
- Italy_Conti
- Natura
- Poland
- Romania
- Russia
- Slovenia
- Spain_sivim
- Switzerland
- Ukraine_Kiev_SPphyt
- VegItaly

European calcareous fens

Other useful data

Selected datasets

Current selection

Ammonihila arenaria

Plot observations Distribution Metadata Synopsis

Dataset 'Czechia_nvd'

SynBioSys name Frequency

Urtica dioica	16.9
Taraxacum sect. Ruderalia	15.2
Dactylis glomerata	12.1
Lemna minor	12.1
Ranunculus repens	11.7
Elymus repens	11.1
Plantago lanceolata	10.3
Poa trivialis subsp. trivialis	10.0
Rumex acetosa	9.7
Galium aparine	9.6
Cirsium arvense	9.6
Arrhenatherum elatius	9.5
Ranunculus acris	9.3
Deschampsia cespitosa subsp. cespitosa	9.1
Veronica chamaedrys subsp. chamaed...	9.1
Achillea millefolium	8.7
Poa nemoralis	8.3
Tripleurospermum perforatum	8.2
Alopecurus pratensis	8.1
Anthoxanthum odoratum	8.1
Aegopodium podagraria	8.1
Agrostis capillaris	8.0
Oxalis acetosella	7.8
Artemisia vulgaris	7.8
Picea abies	7.7
Trifolium repens	7.5

Refresh Simplified table Apply SynBioSys taxon concepts Save

Connected © 2001-2014 Stephan Hennekens, Alterra Selected plot observations: 30115 Observation 14/30115

Edit data



Edit data

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

Add observation Ctrl+Ins
Edit observation Ctrl+Enter
Delete observation Ctrl+D
Undelete observation Ctrl+U
Search & Replace
Set custodian for selected plot observations
Set availability for selected plot observations
Classify
Croatia

Distribution Metadata Synopsis

Dataset 'nordicforests_austrheim'

Relevé number Country code Biblioreference Nr. table in publ. Nr. relevé in table Cover Species name Stratum Co

ObsID	Relevé number	Country code	Biblioreference	Nr. table in publ.	Nr. relevé in table	Cover	Species name	Stratum	Co
810678	810678	56398	Norway			Pre	<i>Deschampsia flexuosa</i>	-	1
810679	810679	56399	Norway			Pre	<i>Luzula pilosa</i>	-	1
810680	810680	56400	Norway			Pre	<i>Maianthemum bifolium</i>	-	1
810681	810681	56401	Norway			Pre	<i>Phegopteris connectilis</i>	-	1
810682	810682	56402	Norway			Pre	<i>Potentilla erecta</i>	-	1
810683	810683	56403	Norway			Pre	<i>Vaccinium myrtillus</i>	-	1
810684	810684	56404	Norway			Pre	<i>Vaccinium vitis-idaea</i>	-	1
810685	810685	56405	Norway			Pre			
810686	810686	56406	Norway			Pre			
810687	810687	56407	Norway			Pre			
810688	810688	56408	Norway			Pre			
810689	810689	56409	Norway			Pre			
810690	810690	56410	Norway			Pre			
810691	810691	56411	Norway			Pre			
810692	810692	56412	Norway			Pre			
810693	810693	56413	Norway			Pre			
810694	810694	56414	Norway			Pre			
810695	810695	56415	Norway			Pre			
810696	810696	56416	Norway			Pre			
810697	810697	56417	Norway			Pre			
810698	810698	56418	Norway			Pre			
810699	810699	56419	Norway			Pre			
810700	810700	56420	Norway			Pre			
810701	810701	56421	Norway			Pre			
810702	810702	56422	Norway			Pre			
810703	810703	56423	Norway			Pre			
810704	810704	56424	Norway			Pre			
810705	810705	56425	Norway			Pre			
810706	810706	56426	Norway			Pre			

Connected © 2001-2014 Stephan Hennekens, Alterra Selected plot observations: 4938 Observation 1/300

Plot observations – editing

Edit plot observation

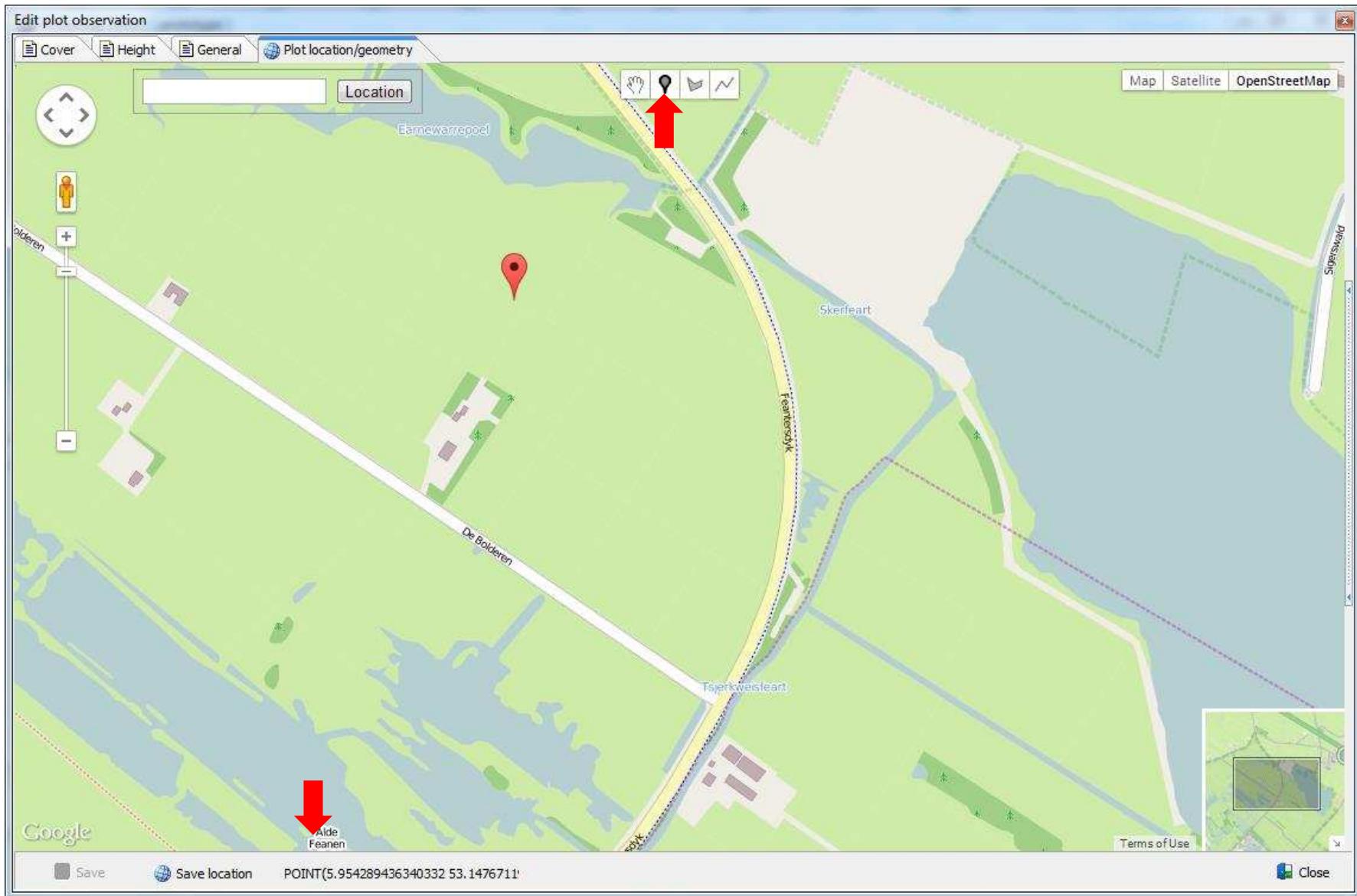
 Cover Height General Plot location/geometry

Opnamenummer <input type="text" value="173244"/>	Opp. proefvlak (m ²) <input type="text" value="4.00"/>																																																			
Biblio referentie <input type="text" value="..."/>	Expositie ('NWZOVX') <input type="text" value="0"/>																																																			
Bedekkingsschaal (mandatory) 4de Bosstatistiek	Indinatie (graden) <input type="text"/>																																																			
Project (code) PQ's Ameland	Mossen geïdentificeerd (J/N) <input type="text" value="J"/>																																																			
Auteur (code) Slim, P.A.	Permanent Quadraat (J/N) <input type="text" value="J"/>																																																			
Datum (jaar/maand/dag) <input type="text" value="19-8-1986"/>	Transect Wel in transect, wel homogeen <input type="text" value="..."/>																																																			
Syntaxond <input type="text"/> <table border="1"><tr><td>◀</td><td>augustus 1986</td><td>▶</td></tr><tr><td>ma</td><td>di</td><td>wo</td><td>do</td><td>vr</td><td>za</td><td>zo</td></tr><tr><td>28</td><td>29</td><td>30</td><td>31</td><td>1</td><td>2</td><td>3</td></tr><tr><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td></tr><tr><td>18</td><td>19</td><td>20</td><td>21</td><td>22</td><td>23</td><td>24</td></tr><tr><td>25</td><td>26</td><td>27</td><td>28</td><td>29</td><td>30</td><td>31</td></tr><tr><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td></tr></table>	◀	augustus 1986	▶	ma	di	wo	do	vr	za	zo	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7
◀	augustus 1986	▶																																																		
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4	5	6	7	8	9	10																																														
11	12	13	14	15	16	17																																														
18	19	20	21	22	23	24																																														
25	26	27	28	29	30	31																																														
1	2	3	4	5	6	7																																														
Lengte pr <input type="text"/>	Natura 2000-gebied <input type="text" value="Duinen Ameland"/>																																																			
Breedte pr <input type="text"/>																																																				
Remarks Orig. relevé nr: 002-0106; Ameland																																																				

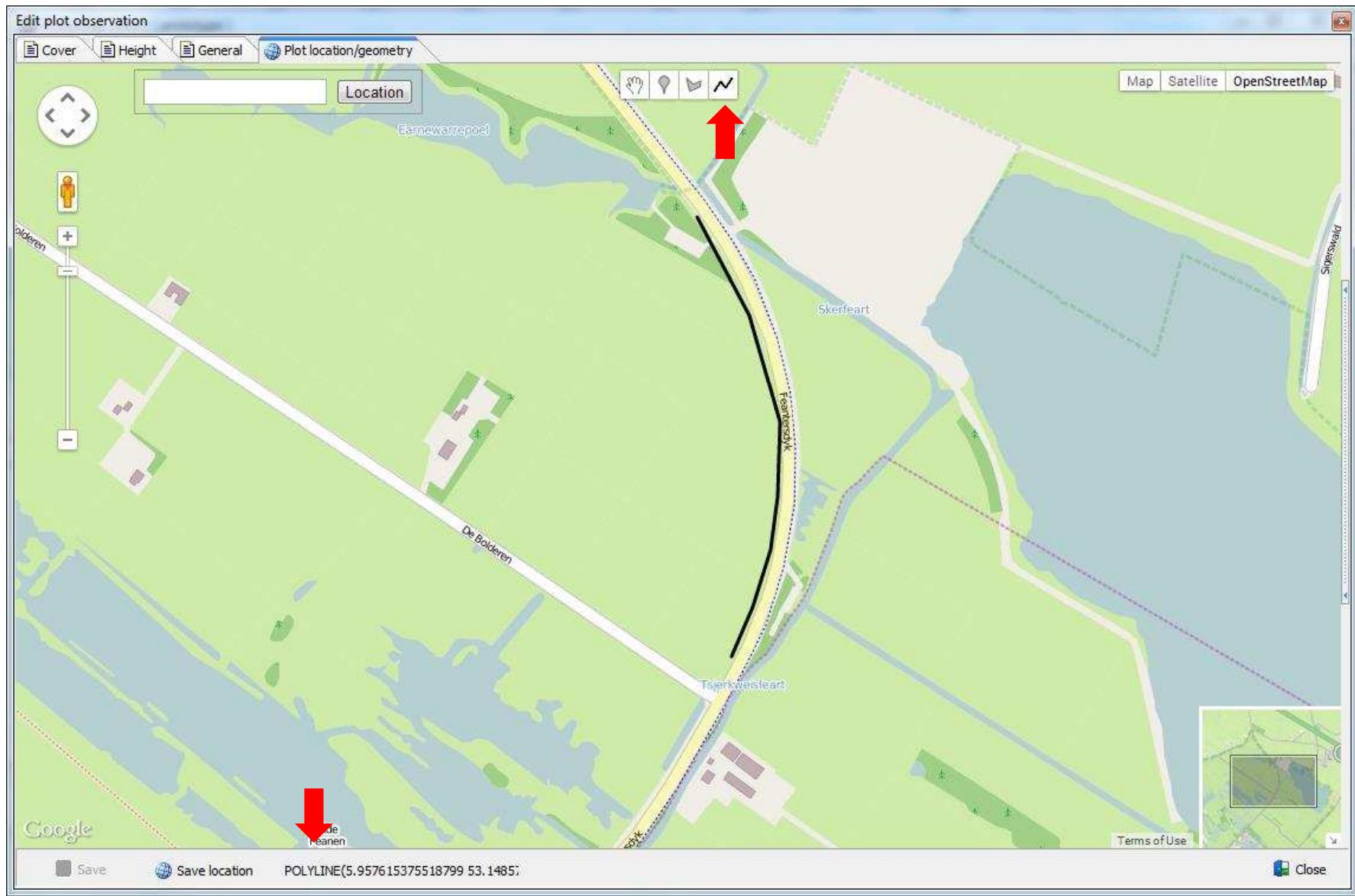
+ -

Save Save location Close

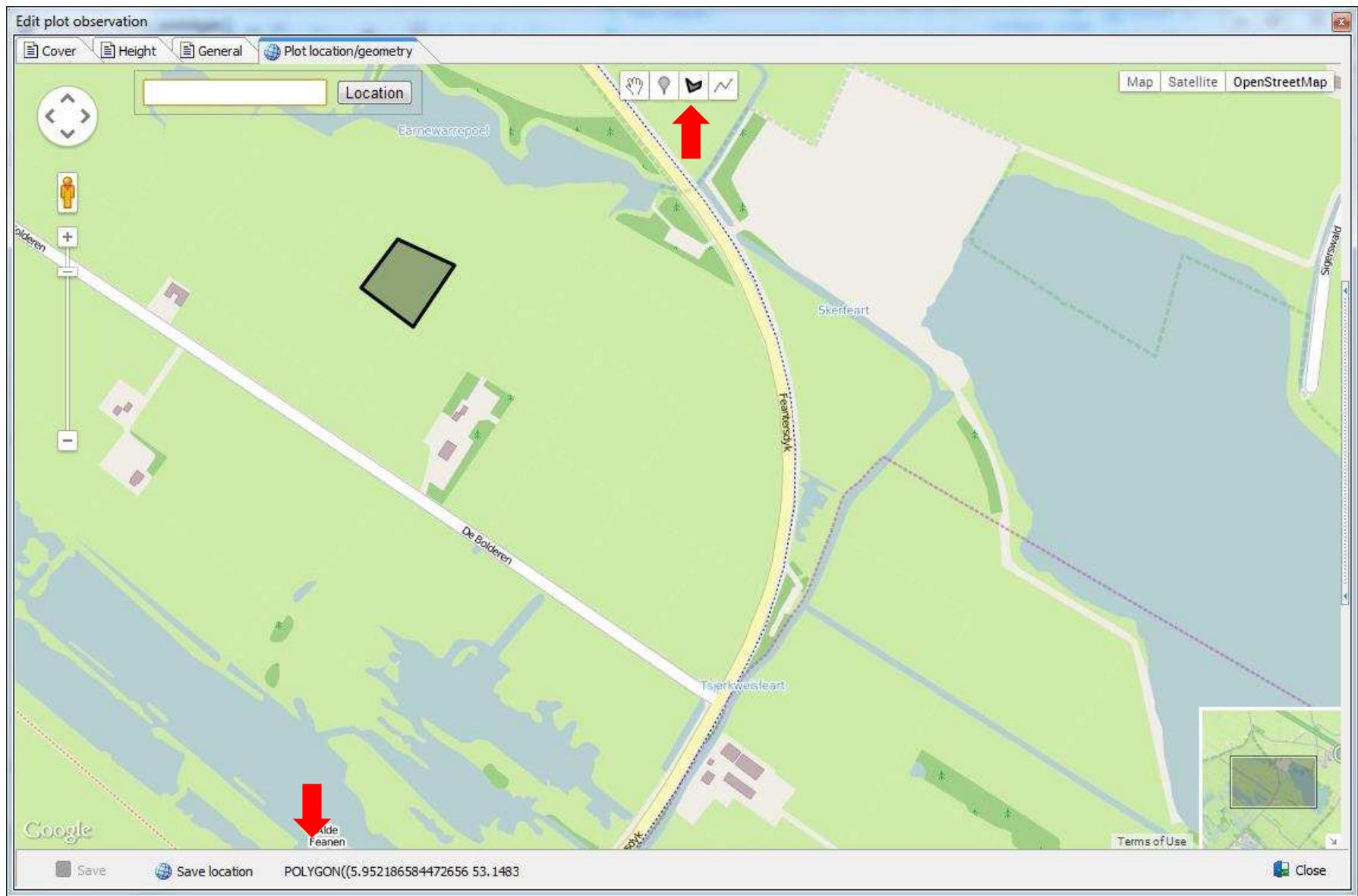
Plot observations – pin ‘point’ location



Plot observations – pin ‘line’ location



Plot observations – pin ‘polygon’ location



Import



Import

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP BioScore2

Dataset 'Croatia_mix'

Import menu options: Turboveg2 database and GBIF species distribution data.

Selected datasets:

- Current selection
- Ammophila arenaria
- Arctostaphylos uva-ursi
- Bistorta vulgaris
- Brachypodium pinnatum
- Brachypodium retusum
- Calluna vulgaris
- Calluna vulgaris H4030
- Campanula scheuchzeri
- Carex alba
- Carex limosa
- Cirsium dissectum
- Deschampsia setacea
- Dryas octopetala
- Eleocharis acicularis
- Eleocharis multicaulis
- Eriocaulon aquaticum
- Eriophorum vaginatum
- Eryngium campestre
- Fagus sylvatica
- Genista anglica
- Gentiana pneumonanthe
- H4030
- Isoetes lacustris
- Juncus bulbosus
- Juncus trifidus
- Ledum palustre
- Littorella uniflora

Turboveg 3
A gateway to vegetation plot data
- prototype -

Connected © 2001-2014 Stephan Hennekens, Alterra Selected observation: 0

Import plot observation data

- Turboveg 2 databases
- GBIF species data [experimental]

To do

- Excel tables
- Standard XML files from Turboveg v2
- VegX files

Select data

```
SELECT * from biggest_table_I_can_find;  
SELECT * from biggest_table_I_can_find;
```



Select data

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP BioScore2

Dataset 'Croatia_mix'

46 species

Relevé number Country code Biblio reference Nr. table in publ. Nr. relevé in table Cover a Species name

Relevé number	Country code	Biblio reference	Nr. table in publ.	Nr. relevé in table	Cover a	Species name
1	Croatia				Bra	<i>Centaurea jacea</i> inkl. l.
2	Croatia				Bra	<i>Medicago lupulina</i>
3	Croatia				Bra	<i>Achillea millefolium</i>
4	Croatia				Bra	<i>Ajuga reptans</i>
5	Croatia				Bra	<i>Anthoxanthum odoratum</i>
6	Croatia				Bra	<i>Arrhenatherum elatius</i>
7	Croatia				Bra	<i>Bellis perennis</i>
8	Croatia				Bra	<i>Bromus racemosus</i>
9	Croatia				Bra	<i>Carex distans</i>
10	Croatia				Bra	<i>Carex hirta</i>
11	Croatia				Bra	<i>Carex spicata</i>
12	Croatia				Bra	<i>Cerastium fontanum s.</i>
13	Croatia				Bra	<i>Cichorium intybus</i>
14	Croatia				Bra	<i>Cirsium arvense</i>
15	Croatia				Bra	<i>Crepis biennis</i>
16	Croatia				Bra	<i>Daucus carota</i>
17	Croatia				Bra	<i>Equisetum arvense</i>
18	Croatia				Bra	<i>Erigeron annuus</i>
19	Croatia				Bra	<i>Galium mollugo</i>
20	Croatia				Bra	<i>Galium verum</i>
21	Croatia				Bra	<i>Gaudinia fragilis</i>
22	Croatia				Bra	<i>Holcus lanatus</i>
23	Croatia				Bra	<i>Leontodon autumnalis</i>
24	Croatia				Bra	<i>Leontodon hispidus</i>
25	Croatia				Bra	<i>Leucanthemum vulgare</i>
26	Croatia				Bra	<i>Leucojum aestivum</i>
27	Croatia				Bra	<i>Lolium perenne</i>
28	Croatia				Bra	<i>Lotus corniculatus</i>
29	Croatia				Bra	<i>Lychnis flos-cuculi</i>

Connected © 2001-2014 Stephan Hennekens, Alterra Selected observation: 0 Observation 1/5057

Selection – header data

Selection – species

Selection – typical species for H4030

Build and run query [H4030-European dry heaths]

Single relevés only Synoptic relevés only Both single and synoptic relevés

Header data Species data Map

Species name	Required	Min %	Max %	Select
Calluna vulgaris	<input checked="" type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Carex pilulifera	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Chamaespartium tridentatum	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Cistus ladanifer	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Cistus salvifolius	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Daboecia cantabrica	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Deschampsia flexuosa	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Dicranum scoparium	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Erica australis	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Erica cinerea	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Erica mackaiana	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Erica umbellata	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Galium saxatile	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Genista anglica	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Genista germanica	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Genista pilosa	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Hylocomium splendens	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Hypnum jutlandicum	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Nardus stricta	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>

Add children: Min # of selected species to be present in a plot observation: 5

Execute Selected plot observations: 11556 Clear Flip selection Criteria Close

Selection – map

Build and run query [H4030-European dry heaths]

Single relevés only Synoptic relevés only Both single and synoptic relevés

Header data Species data **Map**

Species name	Required	Min %	Max %	Select
Calluna vulgaris	<input checked="" type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Carex pilulifera	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Chamaespartium tridentatum	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Cistus ladanifer	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Cistus salvifolius	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Daboecia cantabrica	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Deschampsia flexuosa	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Dicranum scoparium	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Erica australis	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Erica cinerea	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Erica mackaiana	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Erica umbellata	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Galium saxatile	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Genista anglica	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Genista germanica	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Genista pilosa	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Hylocomium splendens	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Hypnum jutlandicum	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>
Nardus stricta	<input type="checkbox"/>	0	100	<input checked="" type="checkbox"/>

Add children: Min # of selected species to be present in a plot observation: 5

 Execute **Selected plot observations: 11556**  Clear Flip selection  Criteria  Close

Export data



Export data

TurboVeg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP BioScore2

DUTCH NATIONAL VEGETATION
EUROPEAN VEGETATION AREA
Braun-Blanquet project
European calcareous fens
Other useful data
Selected datasets
Current selection
Ammophila arenaria
Arctostaphylos uva-ursi
Bistorta vulgaris
Brachypodium pinnatum
Brachypodium retusum
Calluna vulgaris
Calluna vulgaris H4030
Campanula scheuchzeri
Carex alba
Carex limosa
Cirsium dissectum
Deschampsia setacea
Dryas octopetala
Eleocharis acicularis
Eleocharis multicaulis
Eriocaulon aquaticum
Eriophorum vaginatum
Eryngium campestre
Fagus sylvatica
Genista anglica
Gentiana pneumonanthe
H4030
Isoetes lacustris
Juncus bulbosus
Juncus trifidus
Ledum palustre
Littorella uniflora

Delimited species and header data table
Spreadsheet table
Distribution map
Maxent
Masterlist Br.BI project (DbName + RelevNr)
E-mail custodians

TurboVeg 3
A gateway to vegetation plot data
- prototype -



Connected © 2001-2014 Stephan Hennekens, Alterra Selected observation: 0

Export – export to delimited text files

JUICE 7.0.98

File Edit Species Relevés Table Head Sorting Separators Synoptic Table Indicator Values Analysis Table Simulation Help

Species black Relevé red Separator hierarchy 1 Download <<< New update (2014-02-10) is available.

Initial entry number:

Relevés 4938
Species 1860

Ammophila arenaria
Euphorbia portlandica
Sedum acre
Bellis perennis
Carex arenaria
Cerastium diffusum
Erodium cicutarium
Festuca rubra
Geranium molle
Hypochaeris radicata
Poa pratensis
Crepis capillaris
Ligustrum vulgare
Lotus corniculatus
Ononis repens
Cladonia rangiformis
Galium verum
Hypnum cupressiforme
Leontodon taraxacoides
Luzula campestris
Peltigera rufescens
Thymus praecox subsp. arcticus
Erigeron acer
Linaria arenaria
Peltigera canina
Senecio jacobaea
Viola tricolor
Centaurium erythraea
Euphorbia paralias
Phleum arenarium
Trifolium arvense
Verbascum thapsus
Vulpia fasciculata
Echium vulgare
Erophila verna
Tortella flavovirens
Aira praecox
Bromus hordaceus subsp. hordaceus
Bromus sterilis
Festuca ovina
Genthera stricta
Vicia sativa
Achillea millefolium
Daucus carota
Plantago lanceolata

Export to delimited species and header data table

General file name: C:\H3130.csv

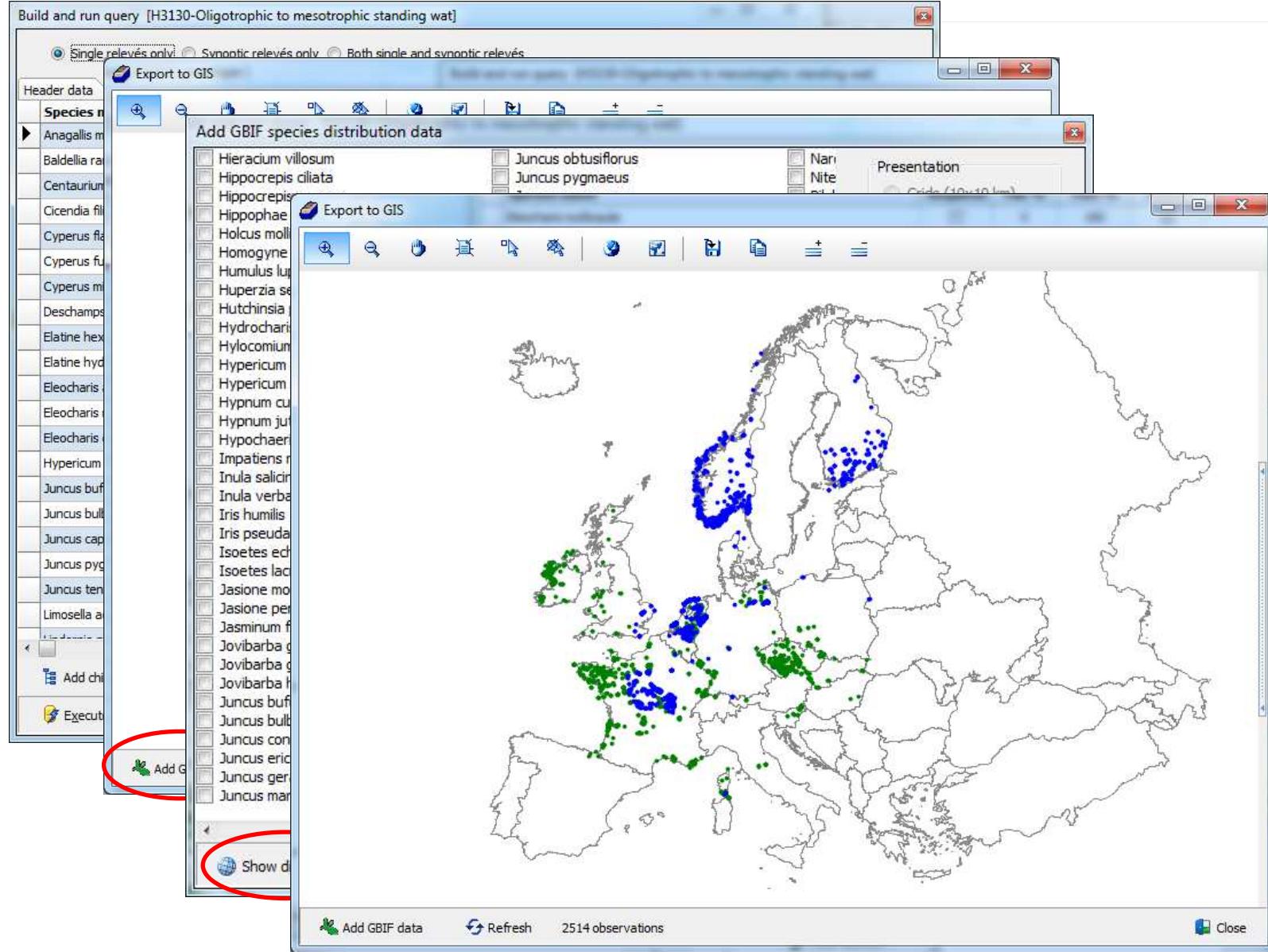
Plot observation type:
 Individual observations Synoptic observations

Merge vegetation layers
 Only include geo-referenced plot observations
 Restrict header data to standard fields
 Apply mapped taxon concepts from SynBioSys Europe
 JUICE compatible input files

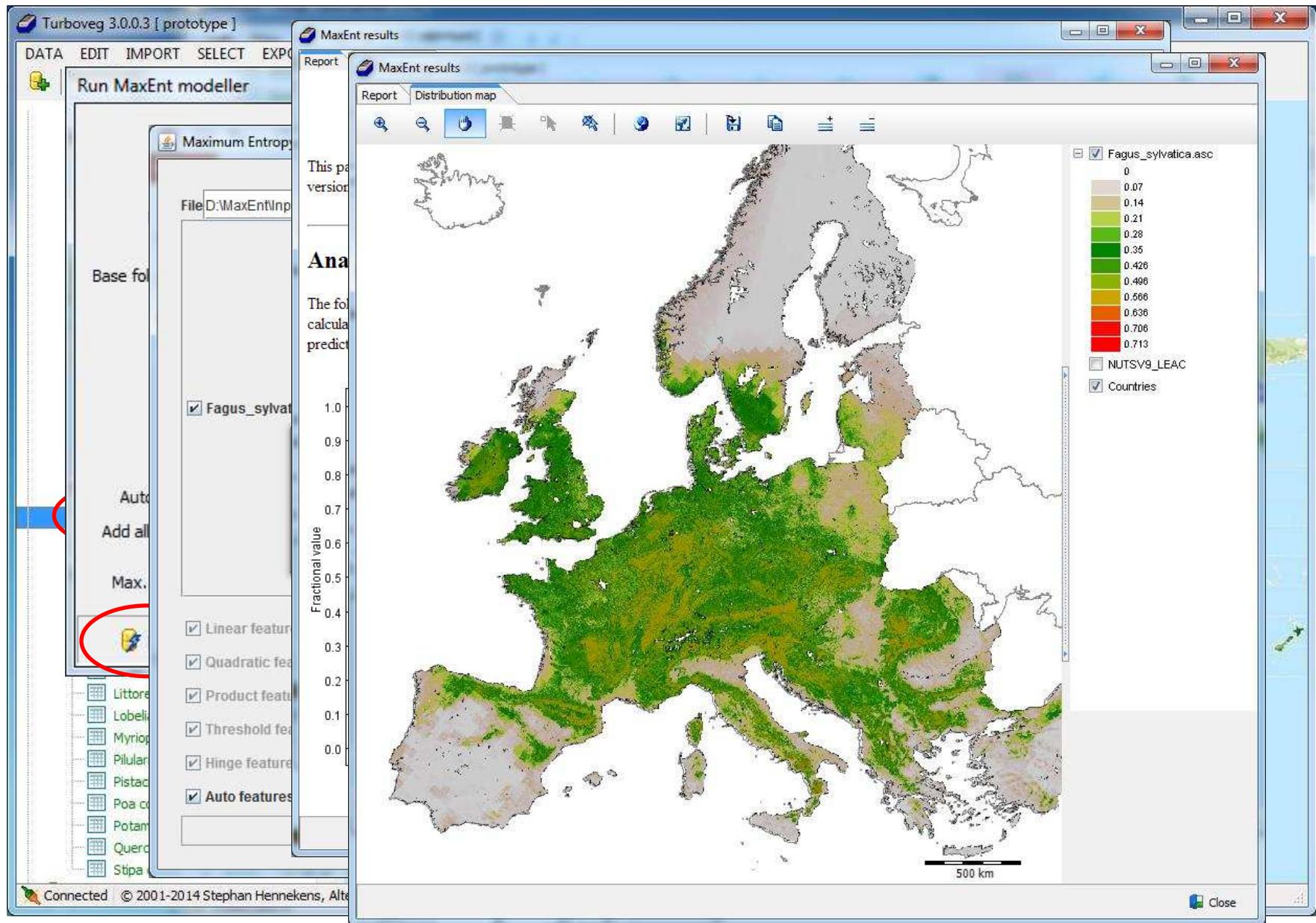
Export Close

Frequency 4508 Relative No.: Row: 34 Group No.: 1
Relevé No.: Column: 87

Export - distribution



Export – Maxent [experimental]



Export – view selected plot observations

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

DUTCH NATIONAL VEGETATION DATA
EUROPEAN VEGETATION ARCHIVE
Braun-Blanquet project
European calcareous fens
Other useful data
Selected datasets
Current selection
Ammophila arenaria
Bistorta vulgaris
Brachypodium pinnatum
Calluna vulgaris
Calluna vulgaris H4030
Carex limosa
Cirsium dissectum
Deschampsia setacea
Eleocharis acicularis
Eleocharis multicaulis
Eriocaulon aquaticum
Fagus sylvatica
Genista anglica
Gentiana pneumonanthe
H4030
Isoetes lacustris
Juncus bulbosus
Juncus trifidus
Littorella uniflora
Lobelia dortmanna
Myriophyllum alterniflorum
Pilularia globulifera
Potamogeton polygonifolius
TEST

Plot observations Distribution Metadata Synopsis

Selected plot observations 'Current selection'

Search <All columns>

PlotID	ObsID	Relevé number	Country code	Biblioreference	Nr. table in publ.	Nr. relevé in table	Cover	Species name	Stratum	Co
81593	81593	402152	Slovak Rep...	Accesible data			Bra	Avenella flexuosa	hl	2
81906	81906	478266	Slovak Rep...	Accesible data			Bra	Betula pendula	t1	3
83441	83441	603299	Slovak Rep...	Viceniková A...	1	7	Orc	Calluna vulgaris	hl	2
83633	83633	603628	Slovak Rep...	Viceniková A.			Bra	Dicranum scoparium	ml	2
83638	83638	603636	Slovak Rep...	Viceniková A.	232		Bra	Genista pilosa	hl	1
83639	83639	603637	Slovak Rep...	Viceniková A.			Bra	Hylotelephium maximum	hl	+
83681	83681	603730	Slovak Rep...	Viceniková A.	202		Bra	Pinus sylvestris	jl	r
83707	83707	603799	Slovak Rep...	Viceniková A.	233		Bra	Polytrichum juniperinum	ml	3
83708	83708	603800	Slovak Rep...	Viceniková A.			Bra	Quercus petraea	t1	3
84914	84914	606024	Slovak Rep...	Jurko A.	3	5	Orc	Quercus species	jl	r
84933	84933	606043	Slovak Rep...	Jurko A.	4	1	Orc	Vaccinium myrtillus	hl	+
84934	84934	606044	Slovak Rep...	Jurko A.	4	2	Orc			
84935	84935	606045	Slovak Rep...	Jurko A.	4	3	Orc			
84936	84936	606046	Slovak Rep...	Jurko A.	4	4	Orc			
84938	84938	606048	Slovak Rep...	Jurko A.	4	6	Orc			
84954	84954	606071	Slovak Rep...	Kontríková O.	2	11	Orc			
84959	84959	606157	Slovak Rep...	Majzlánová E.	1	2	Orc			
84960	84960	606158	Slovak Rep...	Majzlánová E.	1	3	Orc			
84961	84961	606160	Slovak Rep...	Majzlánová E.	1	5	Orc			
85062	85062	606386	Slovak Rep...	újmurdová B...	1	5	Orc			
85063	85063	606388	Slovak Rep...	újmurdová B...	1	7	Orc			
85306	85306	606776	Slovak Rep...	Jurko A.		2	Bra			
86213	86213	608332	Slovak Rep...	Ružíková H.	27	21	Orc			
86218	86218	608337	Slovak Rep...	Ružíková H.	27	26	Orc			
86221	86221	608340	Slovak Rep...	Ružíková H.	27	29	Orc			
86223	86223	608342	Slovak Rep...	Ružíková H.	p.68	1	Orc			
87050	87050	610245	Slovak Rep...	újombák L., L...	1	2	Orc			
87051	87051	610246	Slovak Rep...	újombák L., L...	1	3	Orc			
87133	87133	610481	Slovak Rep...	újombák L.	1	3	Orc			

Connected © 2001-2014 Stephan Hennekens, Alterra Selected plot observations: 11556 Observation 1/11555

Export – synopsis of selected plot observations

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

DUTCH NATIONAL VEGETATION DATA
EUROPEAN VEGETATION ARCHIV
Braun-Blanquet project
European calcareous fens
Other useful data
Selected datasets
Current selection
Ammophila arenaria
Bistorta vulgaris
Brachypodium pinnatum
Calluna vulgaris
Calluna vulgaris H4030
Carex limosa
Cirsium dissectum
Deschampsia setacea
Eleocharis acicularis
Eleocharis multicaulis
Eriocaulon aquaticum
Fagus sylvatica
Genista anglica
Gentiana pneumonanthe
H4030
Isoetes lacustris
Juncus bulbosus
Juncus trifidus
Littorella uniflora
Lobelia dortmanna
Myriophyllum alterniflorum
Pilularia globulifera
Potamogeton polygonifolius
TEST

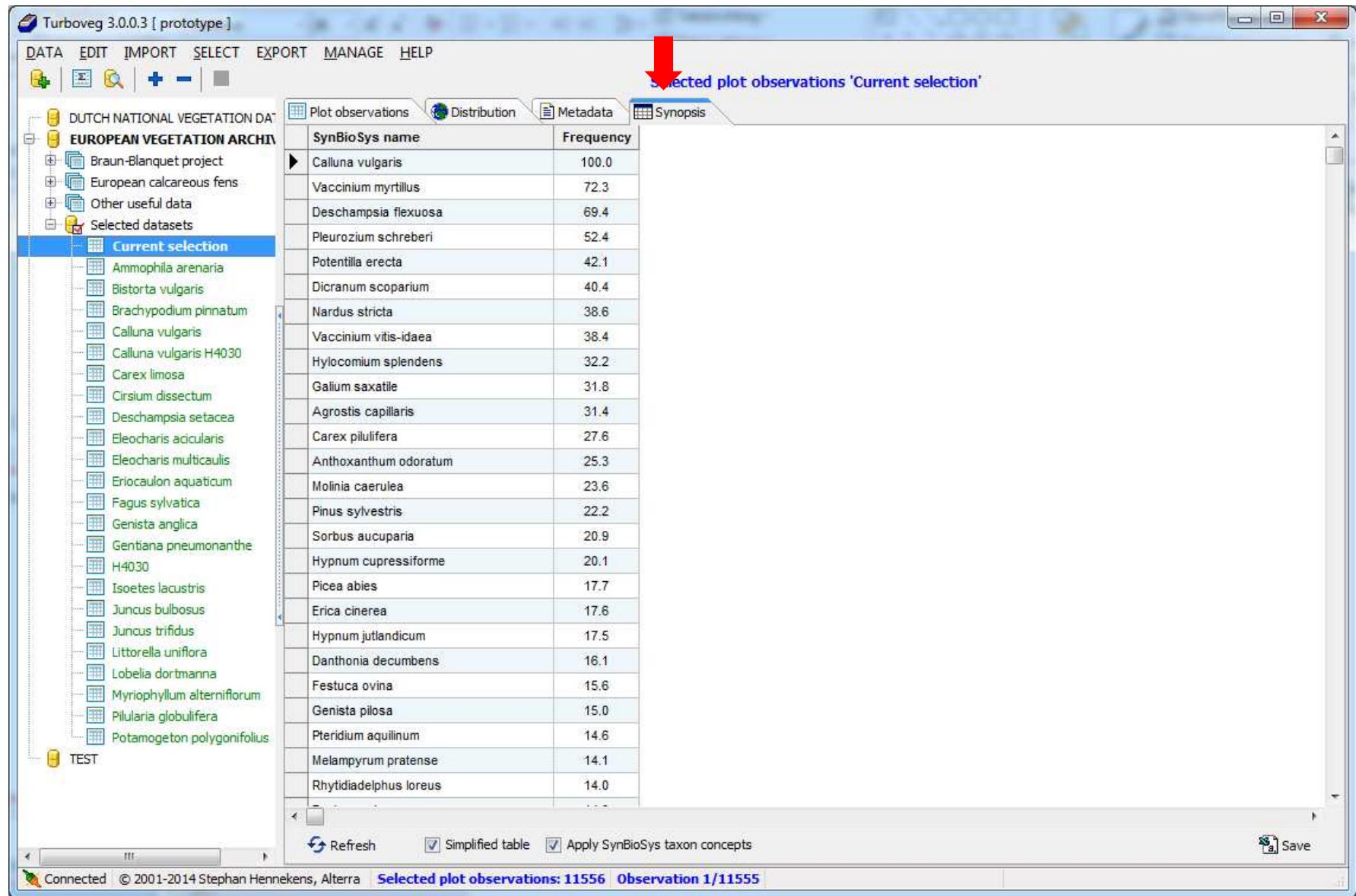
Plot observations Distribution Metadata Synopsis

Selected plot observations 'Current selection'

SynBioSys name	Frequency
Calluna vulgaris	100.0
Vaccinium myrtillus	72.3
Deschampsia flexuosa	69.4
Pleurozium schreberi	52.4
Potentilla erecta	42.1
Dicranum scoparium	40.4
Nardus stricta	38.6
Vaccinium vitis-idaea	38.4
Hylocomium splendens	32.2
Galium saxatile	31.8
Agrostis capillaris	31.4
Carex pilulifera	27.6
Anthoxanthum odoratum	25.3
Molinia caerulea	23.6
Pinus sylvestris	22.2
Sorbus aucuparia	20.9
Hypnum cupressiforme	20.1
Picea abies	17.7
Erica cinerea	17.6
Hypnum jutlandicum	17.5
Danthonia decumbens	16.1
Festuca ovina	15.6
Genista pilosa	15.0
Pteridium aquilinum	14.6
Melampyrum pratense	14.1
Rhytidadelphus loreus	14.0

Refresh Simplified table Apply SynBioSys taxon concepts Save

Connected © 2001-2014 Stephan Hennekens, Alterra Selected plot observations: 11556 Observation 1/11555



Export – synopsis of selected plot observations

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

DUTCH NATIONAL VEGETATION DATA
EUROPEAN VEGETATION ARCHIV
Braun-Blanquet project
European calcareous fens
Other useful data
Selected datasets
Current selection
Ammophila arenaria
Bistorta vulgaris
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Eleocharis multicaulis
Eriocaulon aquaticum
Fagus sylvatica
Genista anglica
Gentiana pneumonanthe
H4030
Isoetes lacustris
Juncus bulbosus
Juncus trifidus
Littorella uniflora
Lobelia dortmanna
Myriophyllum alterniflorum
Pilularia globulifera
Potamogeton polygonifolius
TEST

Plot observations Distribution Metadata Synopsis

Selected plot observations 'Current selection'

Taxon list	SynBioSys name	Turboveg name	Stratum	Frequency
C_Europe	Calluna vulgaris	Calluna vulgaris	-	0.0
Croatia	Calluna vulgaris	Calluna vulgaris	-	0.2
France_Sophy	Calluna vulgaris	Calluna vulgaris	-	25.0
VegItaly	Calluna vulgaris	Calluna vulgaris	-	0.1
Europe	Calluna vulgaris	Calluna vulgaris	-	0.3
Europe_Lenoir	Calluna vulgaris	Calluna vulgaris	-	1.6
France_Sophy	Calluna vulgaris	Calluna vulgaris	t1	0.1
France_Sophy	Calluna vulgaris	Calluna vulgaris	t2	0.4
Floranld	Calluna vulgaris	Calluna vulgaris	s1	0.2
Ireland2008	Calluna vulgaris	Calluna vulgaris	s1	0.0
GermanSL 1.2	Calluna vulgaris	Calluna vulgaris	s1	0.7
Austria	Calluna vulgaris	Calluna vulgaris	s1	0.0
Ireland2008	Calluna vulgaris	Calluna vulgaris	s2	0.8
Austria	Calluna vulgaris	Calluna vulgaris	s2	0.0
Europe_Lenoir	Calluna vulgaris	Calluna vulgaris	s2	0.0
Floranld	Calluna vulgaris	Calluna vulgaris	hl	4.1
Ireland2008	Calluna vulgaris	Calluna vulgaris	hl	1.0
Poland	Calluna vulgaris	Calluna vulgaris	hl	1.5
GermanSL 1.2	Calluna vulgaris	Calluna vulgaris	hl	8.9
Romania	Calluna vulgaris	Calluna vulgaris	hl	0.0
Austria	Calluna vulgaris	Calluna vulgaris	hl	4.9
Czechia_Slovakia_2010	Calluna vulgaris	Calluna vulgaris	hl	12.9
Slovenia	Calluna vulgaris	Calluna vulgaris	hl	1.7
Europe	Calluna vulgaris	Calluna vulgaris	hl	0.1
Europe_Lenoir	Calluna vulgaris	Calluna vulgaris	hl	0.9
Czechia_Slovakia_2010	Calluna vulgaris	Calluna vulgaris	jl	0.2

Refresh Simplified table Apply SynBioSys taxon concepts Save

Connected © 2001-2014 Stephan Hennekens, Alterra Selected plot observations: 11556 Observation 1/11555

Export – mailing list of custodians

Send e-mail to custodians

Name	Organisation	Email address	Nr of plot observations
<input checked="" type="checkbox"/> Els de Bie	Research Institute for Nat...	els.debie@inbo.be	1299
<input checked="" type="checkbox"/> Iva Apostolova	Bulgarian Academy of Scie...	iva.apostolova@gmail.com	1
<input checked="" type="checkbox"/> John Rodwell			
<input checked="" type="checkbox"/> Milan Chytry			
<input checked="" type="checkbox"/> Stephan Hennekens			
<input checked="" type="checkbox"/> Wolfgang Willner			

BERICHT

Data usage request from Braun-Blanquet vegetation database - Bericht (Tekst zonder opmaak)

BESTAND INVOEGEN OPTIES TEKST OPMAKEN CONTROLEREN

Knippen Kopiëren Adresboek Namen controleren Bestand bijvoegen Item Handtekening Opnemen Codes Zoomen

Plakken Opmak kopiëren/plakken Klembord Basistekst Namen

Aan... CC... BCC:

Verzenden

els.debie@inbo.be; iva.apostolova@gmail.com; johnrodwell@tiscali.co.uk; chytry@sci.muni.cz; Hennekens, Stephan; wolfgang.wilner@vinca.at

Onderwerp Data usage request from Braun-Blanquet vegetation database

@ Send

Dear custodian,

Sincerely yours, |

The 'Send' button is circled in red.

Manage



Manage lookup tables

Turboveg 3.0.0.3 [prototype]

Manage lookup tables

Lookup tables

Manage taxon lists

SbsTaxonlistID	Name	Metadata	Parent	ScientificName	VernacularName	Author	TV2Species	SbsSpecies
1	Austria_VINCA							

Manage data units

ID	Name	Description
1	Austria_VINCA	percentage

Manage data fields

ID	FieldGroup	LookupTable	Unit	FieldName	Description	DataType	Decimals	Mandatory	ReadOnly	ValMin	ValMax
1											

Manage datasets

ID	DatasetGroup	Profile	TaxonList	Name	Code	GIVD	Metadata
1							

Manage profiles

Profile name	ID	Field description	Show
Austria_VINCA	1	Relevé number	<input checked="" type="checkbox"/>

Balkan: Manage custodians

ID	Name	Institution	Email	Metadata
1	Stephan Hennekens	Alterra, Wageningen, The Netherland	stephan.hennekens@wur.nl	
2	Milan Chytry	Masaryk University, Brno, Czech Republic	chytry@sci.muni.cz	
3	Adrian Andreica	Transilvania University of Brasov, Romania	adrianandreica@unitbv.ro	
4	Aleksey Sorokin	Russian Academy of Sciences, Togliatti, Russia	an-sorokin@yandex.ru	
5	Andraž Čarni	Slovenian Academy of Sciences and Arts, Ljubljana, Slovenia	carni@zrc-sazu.si	
6	Balázs Kevey	University of Pécs, Hungary	kevey@gamma.ttk.pte.hu	
7	Dana Michalcová	Masaryk University, Brno, Czech Republic	dannich@sci.muni.cz	
8	Daniel Krstonošić	University of Zagreb, Croatia	dkrstonosic@sumfak.hr	
9	Els de Bie	Research Institute for Nature and Forest (INBO), Belgium	els.debie@inbo.be	
10	Emiliano Agriollo	Sapienza University of Rome, Italy	emiliano.agriollo@uniroma1.it	
11	Flavia Landucci	Masaryk University, Brno, Czech Republic	flavia.landucci@gmail.com	
12	Florian Jansen	Ernst Moritz Arndt University of Greifswald, Germany	jansen@uni-greifswald.de	
13	Gunnar Austrheim	Norwegian University of Science and Technology, Norway	gunnar.austrheim@ntnu.no	
14	Gunnar Seidler	Martin Luther University Halle-Wittenberg, Germany	gunnar.seidler@botanik.uni-halle.de	
15	Henry Brisse	Marignane, France	brisse.henry@orange.fr	
16	Christian Berg	University of Graz, Austria	christian.berg@uni-graz.at	
17	Inger Greve Alsos	Tromsø University, Norway	inger.g.alsos@uit.no	
18	Ioannis Tsiripidis	Aristotle University of Thessaloniki, Greece	tsiripid@bio.auth.gr	
19	Iva Antonelova	Bulgarian Academy of Sciences, Sofia, Bulgaria	iva.antonelova@gmail.com	

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Save changes Close

Databases (prototypes)

In order to test the database model two large databases have already been set up

- Dutch National Vegetation Database



- European Vegetation Archive (EVA)

Borja Jiménez-Alfaro (plot database)

Jürgen Dengler (taxonomy database)



Planned

- sPlot

Jürgen Dengler



Dutch National Vegetation database

Turboveg 3.0.0.2 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP BioScore2

Metadata database 'DUTCH NATIONAL VEGETATION DATABASE'

DUTCH NATIONAL VEGETATION DATABASE

Dutch National Vegetation Database

- Floranld_2013
 - Ameland
 - ARIETTE
 - BERCO
 - Bes
 - BOSSTAT
 - BRABANT
 - CAROLINE
 - CHARLOT
 - Cml
 - Defensie
 - DELTAARC
 - DIJKEN
 - DIVERS1
 - Divers2
 - Divers3
 - ECOBUR01
 - ECOBUR02
 - ECOBUR03
 - ED
 - EDDY1
 - EDDY2
 - EDDY3
 - EDDY4
 - Gelder2
 - Gelder3
 - Gelderla
 - GIESGEUR
 - GOOI

Total number

	Dataset	Dataset group	Taxon list	Custodian	# of plots	# of plot obs.	GIVD-ID
					664297	664228	
1	Ameland	Dutch National Veg...	Floranld_2013	Stephan Hennekens	2077	2077	EU-NL-001
2	ARIETTE	Dutch National Veg...	Floranld_2013	Stephan Hennekens	319	319	EU-NL-001
3	BERCO	Dutch National Veg...	Floranld_2013	Stephan Hennekens	2398	2398	EU-NL-001
4	Bes	Dutch National Veg...	Floranld_2013	Stephan Hennekens	1495	1495	EU-NL-001
5	BOSSTAT	Dutch National Veg...	Floranld_2013	Stephan Hennekens	1914	1914	EU-NL-001
6	BRABANT	Dutch National Veg...	Floranld_2013	Stephan Hennekens	3242	3242	EU-NL-001
7	CAROLINE	Dutch National Veg...	Floranld_2013	Stephan Hennekens	623	623	EU-NL-001
8	CHARLOT	Dutch National Veg...	Floranld_2013	Stephan Hennekens	842	842	EU-NL-001
9	Cml	Dutch National Veg...	Floranld_2013	Stephan Hennekens	14051	14051	EU-NL-001
10	Defensie	Dutch National Veg...	Floranld_2013	Stephan Hennekens	10868	10868	EU-NL-001
11	DELTAARC	Dutch National Veg...	Floranld_2013	Stephan Hennekens	6320	6320	EU-NL-001
12	DIJKEN	Dutch National Veg...	Floranld_2013	Stephan Hennekens	1097	1097	EU-NL-001
13	DIVERS1	Dutch National Veg...	Floranld_2013	Stephan Hennekens	9565	9565	EU-NL-001
14	Divers2	Dutch National Veg...	Floranld_2013	Stephan Hennekens	9993	9993	EU-NL-001
15	Divers3	Dutch National Veg...	Floranld_2013	Stephan Hennekens	2204	2204	EU-NL-001
16	ECOBUR01	Dutch National Veg...	Floranld_2013	Stephan Hennekens	5971	5971	EU-NL-001
17	ECOBUR02	Dutch National Veg...	Floranld_2013	Stephan Hennekens	5093	5093	EU-NL-001
18	ECOBUR03	Dutch National Veg...	Floranld_2013	Stephan Hennekens	15259	15259	EU-NL-001
19	ED	Dutch National Veg...	Floranld_2013	Stephan Hennekens	2808	2808	EU-NL-001
20	EDDY1	Dutch National Veg...	Floranld_2013	Stephan Hennekens	4987	4987	EU-NL-001
21	EDDY2	Dutch National Veg...	Floranld_2013	Stephan Hennekens	19999	19999	EU-NL-001
22	EDDY3	Dutch National Veg...	Floranld_2013	Stephan Hennekens	5840	5840	EU-NL-001
23	EDDY4	Dutch National Veg...	Floranld_2013	Stephan Hennekens	887	887	EU-NL-001
24	Gelder2	Dutch National Veg...	Floranld_2013	Stephan Hennekens	4701	4701	EU-NL-001
25	Gelder3	Dutch National Veg...	Floranld_2013	Stephan Hennekens	16441	16441	EU-NL-001
26	Gelderla	Dutch National Veg...	Floranld_2013	Stephan Hennekens	47369	47369	EU-NL-001

Save

Connected © 2001-2014 Stephan Hennekens, Alterra Selected observation: 0

European Vegetation Archive

The screenshot shows a Microsoft Internet Explorer window displaying the 'eva-rules.pdf' document from the European Vegetation Archive (EVA) website. The title of the page is 'European Vegetation Archive (EVA) Data Property and Governance Rules'. It is noted that the rules were discussed and approved during the European Vegetation Survey Workshop in Vienna on 26 May 2012. The document is divided into sections: '1. The status and purpose of EVA' and '2. Data contributions to EVA'. The text describes EVA as an initiative of the Working Group European Vegetation Survey (EVS) of the International Association for Vegetation Science (IAVS), aiming to establish a single data repository of vegetation-plot observations from Europe and adjacent areas for academic research and ecological restoration. It also outlines the process for database owners to contribute data to EVA.

European Vegetation Archive (EVA)

Data Property and Governance Rules

Discussed and approved during the European Vegetation Survey Workshop in Vienna on 26 May 2012.¹

1. The status and purpose of EVA

The European Vegetation Archive (EVA) is an initiative of the Working Group European Vegetation Survey (EVS) of the International Association for Vegetation Science (IAVS). The purpose of EVA is to establish and maintain a single data repository of vegetation-plot observations (i.e. records of plant taxon co-occurrence at particular sites, also called phytosociological relevés) from Europe and adjacent areas and to facilitate the use of these data for non-commercial purposes, mainly academic research and applications in nature conservation and ecological restoration.

2. Data contributions to EVA

Database owners or representatives who are willing to provide vegetation-plot observations from Europe can become members of EVA through application to the EVA Governing Board. Any database owner or representative can contribute all or just a subset of its vegetation-plot database to EVA. Databases contributing at least 5,000 vegetation-plot observations not previously included in EVA will be accepted if they meet the technical requirements specified by the EVA Coordinating Board; smaller databases may be accepted upon the discretion of the EVA Governing Board if they contain

• Milan Chytrý, chytr@sci.muni.cz (general coordination)

European Vegetation Archive

Turboveg 3.0.0.2 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP BioScore2

DUTCH NATIONAL VEGETATION DATABASE

EUROPEAN VEGETATION ARCHIVE

Braun-Blanquet project

- Austria
- Britain
- Bulgaria
- Ceu_hu06
- Classify
- Croatia
- Czechia_Slovakia_2010
 - Czechia_nvd
 - Slovakia
- C_Europe
- Europe
- Europe_Lenoir
- Floranld
- France_Sophy
- GermanSL 1.2
- Greece
- Ireland2008
- Italy_Conti
- Natura
- Poland
- Romania
- Russia
- Slovenia
- Spain_sivim
- Switzerland
- Ukraine_Kiev_SPhyt
- VegItaly
- European calcareous fens
- Other useful data

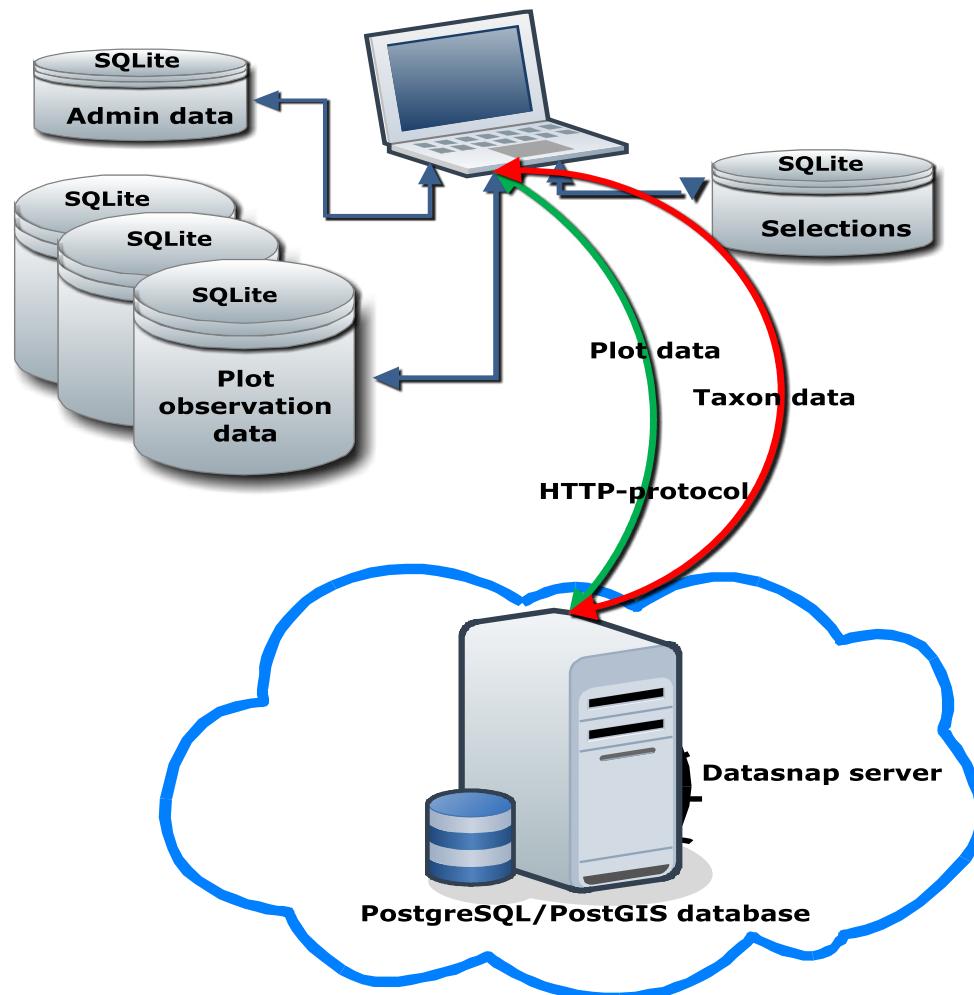
Metadata database 'EUROPEAN VEGETATION ARCHIVE'

	Dataset	Dataset group	Taxon list	Custodian	# of plots	# of plot obs.	GIVD-ID
	Total number				744669	744669	
2	Balkan_Carni	Braun-Blanquet ...	Europe		282	282	
3	Balkan_Pinus	Braun-Blanquet ...	Europe		98	98	
4	Belgium_forests	Braun-Blanquet ...	Floranld	Els de Bie	12321	12321	
5	Britain_NVCD	Braun-Blanquet ...	Britain	John Rodwell	28536	28536	
6	Bulgaria_forests	Braun-Blanquet ...	Bulgaria	Iva Apostolova	488	488	
7	Bulgaria_Iva	Braun-Blanquet ...	Bulgaria	Iva Apostolova	857	857	
8	Bulgaria_Iva2	Braun-Blanquet ...	Bulgaria	Iva Apostolova	4	4	
9	caucasus	Braun-Blanquet ...	Russia		46	46	
10	croatia_forests	Braun-Blanquet ...	Europe		3004	3004	
11	Croatia_mix	Braun-Blanquet ...	Croatia		5057	5057	
12	Croatia_no-forest	Braun-Blanquet ...	C_Europe		1706	1706	
13	Czechia (additional)	Other useful data	Czechia_Slovakia...	Milan Chytry	75771	75771	
14	Czechia_nvd	Braun-Blanquet ...	Czechia_Slovakia...	Milan Chytry	30115	30115	
15	European Calcar...	European calcar...	Europe		6708	6708	
16	fimci-totaal-2012jf	Other useful data	Europe		674	674	
17	France_sophy	Braun-Blanquet ...	France_Sophy		209900	209900	
18	Germany_gvrd	Braun-Blanquet ...	GermanSL 1.2		54002	54002	
19	Germany_vegmv	Braun-Blanquet ...	GermanSL 1.2		25000	25000	
20	Greece_forests	Braun-Blanquet ...	Greece		3199	3199	
21	Greece_nat2000	Braun-Blanquet ...	Natura		3953	3953	
22	Hungary	Braun-Blanquet ...	Ceu_hu06		511	511	
23	Ireland_nvd	Braun-Blanquet ...	Ireland2008		28533	28533	
24	Italy_uniroma	Braun-Blanquet ...	Italy_Conti		7225	7225	
25	Netherlands	Braun-Blanquet ...	Floranld	Stephan Hennek...	100080	100080	EU-NL-001
26	nordicforests_a...	Braun-Blanquet ...	Europe_Lenoir		300	300	

Save

Connected © 2001-2014 Stephan Hennekens, Alterra Selected observation: 0

Client-web server architecture



SynBioSys taxon database

- ❑ = the taxonomic backbone of the European Vegetation Archive
- ❑ Maintenance in Turboveg 3 (previously in SynBioSys Europe)
- ❑ Supervised by Jürgen Dengler
- ❑ Taxon team
 - Erwin Bergmeier
 - Jürgen Dengler
 - Florian Jansen
 - Jiří Danihelka
 - Luis Carlón
 - Riccardo Guarino

SynBioSys taxon database maintenance

Update cross-links from SynBioSys taxon database

TurboVeg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

DUTCH NATIONAL VEGETATION DA
EUROPEAN VEGETATION ARCHI

- Braun-Blanquet project
- European calcareous fens
- Other useful data
- Selected datasets
 - Current selection
 - Ammophila arenaria
 - Bistorta vulgaris
 - Brachypodium pinnatum
 - Calluna vulgaris
 - Calluna vulgaris H4030
 - Carex limosa
 - Cirsium dissectum
 - Deschampsia setacea
 - Eleocharis acicularis
 - Eleocharis multicaulis
 - Eriocaulon aquaticum
 - Fagus sylvatica
 - Genista anglica
 - Gentiana pneumonanthe
 - H4030
 - Isoetes lacustris
 - Juncus bulbosus
 - Juncus trifidus
 - Littorella uniflora
 - Lobelia dortmanna
 - Myriophyllum alterniflorum
 - Pilularia globulifera
 - Potamogeton polygonifolius
- TEST

Dataset 'Czechia_nvd'

Lookup tables

- Cover scales
- Taxon lists
- Data units
- Data fields
- Data field groups
- Datasets
- Dataset groups
- Dataset profiles
- Roles
- Users
- Custodians
- Projects
- SynBioSys taxon database
- Update taxon cross-links from SynBioSys database

TurboVeg 3
y to vegetation plot data
- prototype -

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Synopsis with multiple taxon concepts

Turboveg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

DUTCH NATIONAL VEGETATION DATA
EUROPEAN VEGETATION ARCHIVE
Braun-Blanquet project
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H4030
Isoetes lacustris
Juncus bulbosus
Juncus trifidus
Littorella uniflora
Lobelia dortmanna
Myriophyllum alterniflorum
Pilularia globulifera
Potamogeton polygonifolius
TEST

Plot observations Distribution Metadata Synopsis Selected plot observations 'Lobelia dortmanna'

Taxon list	SynBioSys name	Turboveg name	Stratum	Frequency
France_Sophy	<i>Elymus repens</i>	<i>Agropyrum repens</i>	-	0.3
France_Sophy	<i>Agrostis stolonifera agg.</i>	<i>Agrostis alba</i>	-	1.7
France_Sophy		<i>Agrostis alba s. maritima</i>	-	0.9
Floraland	<i>Agrostis canina</i>	<i>Agrostis canina</i>	-	0.6
France_Sophy	<i>Agrostis canina</i>	<i>Agrostis canina</i>	-	0.3
Ireland2008	<i>Agrostis canina</i>	<i>Agrostis canina</i>	hl	0.3
Ireland2008	<i>Agrostis stolonifera</i>	<i>Agrostis stolonifera</i>	-	3.2
Britain	<i>Agrostis stolonifera</i>	<i>Agrostis stolonifera</i>	-	0.3
Ireland2008	<i>Agrostis stolonifera</i>	<i>Agrostis stolonifera</i>	hl	2.3
France_Sophy		<i>Alchimilla arvensis</i>	-	0.3
France_Sophy		<i>Alisma natans</i>	-	0.3
France_Sophy		<i>Alisma plantago-aquatica</i>	-	0.3
Floraland	<i>Alisma plantago-aquatica</i>	<i>Alisma plantago-aquatica</i>	-	0.3
France_Sophy	<i>Baldellia ranunculoides</i>	<i>Alisma ranunculoides</i>	-	7.5
France_Sophy	<i>Anagallis arvensis</i>	<i>Anagallis arvensis</i>	-	0.3
Ireland2008	<i>Anagallis tenella</i>	<i>Anagallis tenella</i>	-	3.2
Ireland2008	<i>Anagallis tenella</i>	<i>Anagallis tenella</i>	hl	2.6
Ireland2008	<i>Aneura pinguis</i>	<i>Aneura pinguis</i>	hl	0.6
Ireland2008	<i>Aneura pinguis</i>	<i>Aneura pinguis</i>	ml	0.3
France_Sophy		<i>Anthemis arvensis s. niceensis</i>	-	0.3
Ireland2008	<i>Apium inundatum</i>	<i>Apium inundatum</i>	-	3.7
France_Sophy	<i>Apium inundatum</i>	<i>Apium inundatum</i>	-	0.3
Ireland2008	<i>Apium inundatum</i>	<i>Apium inundatum</i>	hl	2.9
France_Sophy	<i>Arabidopsis thaliana</i>	<i>Arabidopsis thaliana</i>	-	0.3
France_Sophy	<i>Arbutus unedo</i>	<i>Arbutus unedo</i>	-	0.9
France_Sophy	<i>Phragmites australis</i>	<i>Arundo phragmites</i>	-	37.1

Refresh Simplified table Apply SynBioSys taxon concepts Save

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Synopsis with simplified taxonomy

TurboVeg 3.0.0.3 [prototype]

DATA EDIT IMPORT SELECT EXPORT MANAGE HELP

Selected plot observations 'Lobelia dortmanna'

DUTCH NATIONAL VEGETATION DATA
EUROPEAN VEGETATION ARCHIVE
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Other useful data
Selected datasets
Current selection
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Brachypodium pinnatum
Calluna vulgaris
Calluna vulgaris H4030
Carex limosa
Cirsium dissectum
Deshampsia setacea
Eleocharis acicularis
Eleocharis multicaulis
Eriocaulon aquaticum
Fagus sylvatica
Genista anglica
Gentiana pneumonanthe
H4030
Isoetes lacustris
Juncus bulbosus
Juncus trifidus
Littorella uniflora
Lobelia dortmanna
Myriophyllum alterniflorum
Pilularia globulifera
Potamogeton polygonifolius
TEST

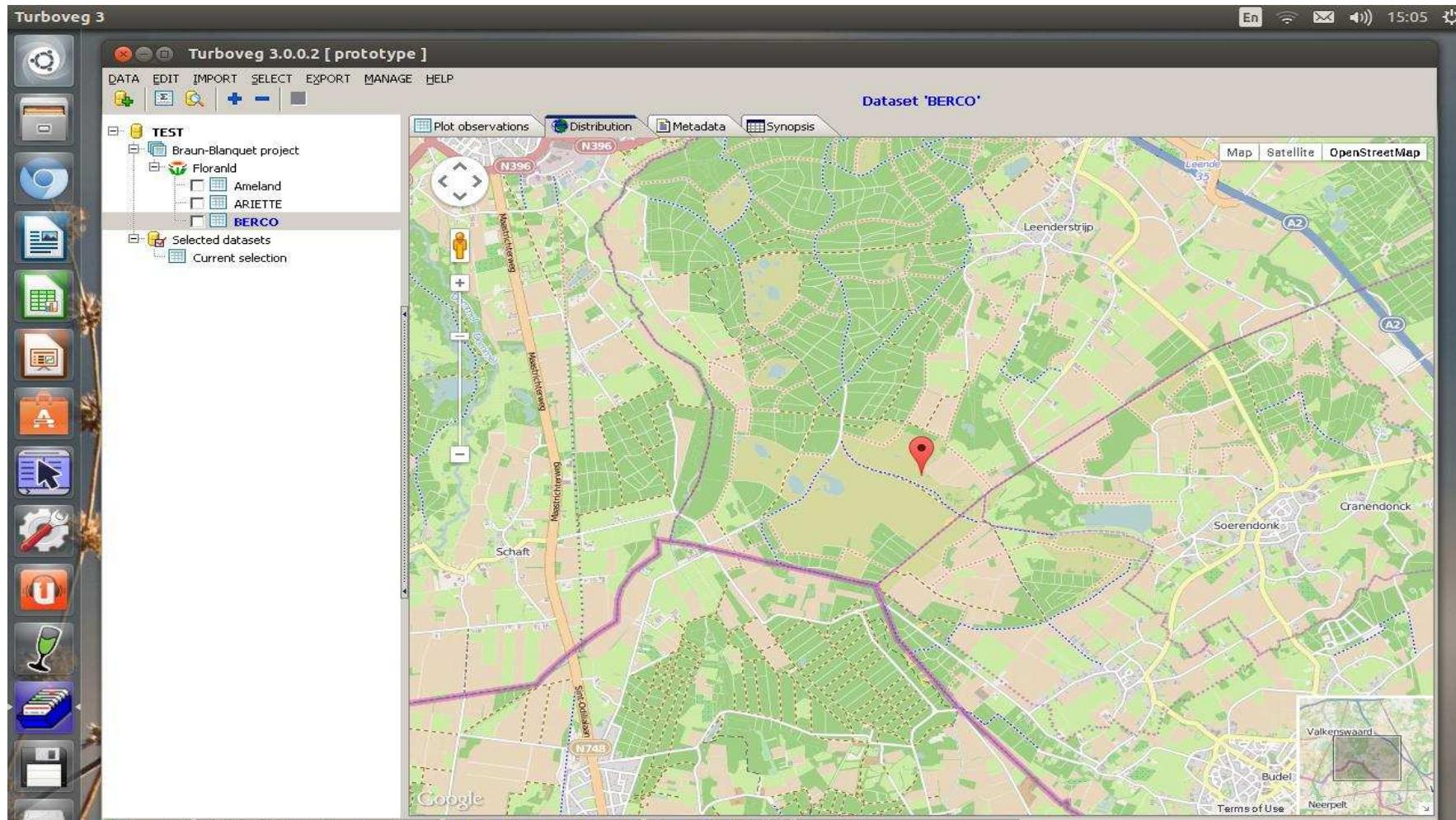
Plot observations Distribution Metadata Synopsis

SynBioSys name	Frequency
<i>Lobelia dortmanna</i>	100.0
<i>Littorella uniflora</i>	61.2
<i>Juncus bulbosus</i>	58.9
<i>Phragmites australis</i>	51.1
<i>Eriocaulon aquaticum</i>	40.5
<i>Eleocharis multicaulis</i>	26.1
<i>Schoenoplectus pungens</i>	26.1
<i>Potamogeton natans</i>	21.8
<i>Ranunculus flammula</i>	21.0
<i>Hypericum elodes</i>	17.8
<i>Baldellia ranunculoides</i>	15.5
<i>Hydrocotyle vulgaris</i>	14.4
<i>Myriophyllum alterniflorum</i>	13.2
<i>Mentha aquatica</i>	12.6
<i>Cladium mariscus</i>	11.5
<i>Juncus articulatus</i>	7.2
<i>Isolepis fluitans</i>	7.2
<i>Apium inundatum</i>	6.9
<i>Eleocharis palustris</i>	6.9
<i>Molinia caerulea</i>	6.9
<i>Potamogeton polygonifolius</i>	6.9
<i>Juncus heterophyllus</i>	6.6
<i>Schoenoplectus lacustris</i>	6.0
<i>Anagallis tenella</i>	5.7
<i>Carex demissa</i>	5.7
<i>Agrostis stolonifera</i>	5.7

Refresh Simplified table Apply SynBioSys taxon concepts Save

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Turboveg on Linux (and OSX) under Wine



Questions

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Thank you!