

# Ecological Impact Assessments of Alien Species in Norway

This pdf file accompanies the data file `assess.txt` and explains its contents.

In addition, a spreadsheet workbook (Microsoft Excel format) is available that contains the same information as the data file and this pdf file.

Together, this pdf file, the data file and the workbook constitute a dataset available at the Dryad Digital Repository:

**Sandvik, H., et al. (2020). Data from: Ecological impact assessments of alien species in Norway. *Dryad Digital Repository*, [doi:10.5061/dryad.8sf7m0cjc](https://doi.org/10.5061/dryad.8sf7m0cjc)**

This dataset contains the data underlying the following article:

**Sandvik, H., et al. (2020). Alien species in Norway: results from quantitative ecological impact assessments. *Ecological Solutions and Evidence*, 1, e12006. [doi:10.1002/2688-8319.12006](https://doi.org/10.1002/2688-8319.12006)**

For questions on the dataset, please contact the first author ([hanno.sandvik@nina.no](mailto:hanno.sandvik@nina.no)) or the [Norwegian Biodiversity Information Centre](mailto:fremmedarter@artsdatabanken.no) ([fremmedarter@artsdatabanken.no](mailto:fremmedarter@artsdatabanken.no)).

This pdf file contains the following sections:

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## Information included

The assessments summarised in this dataset incorporated information that was available by April 2018 and corrections that have been made by October 2019. The full assessment details (and potential future corrections) are available – in Norwegian only – in an online database:

<https://artsdatabanken.no/fremmedartslista2018>.

## Format

The data file (`assess.txt`) is a table formatted in **plain text**. It has **58 columns** that are **semicolon-separated** (`;`), and **1532 rows plus a header**. The header contains the [variable names explained below](#). Each row corresponds to *one assessment* (which means that some *species/taxa* are represented by *two rows*, viz. if they have been assessed for both mainland Norway and Svalbard).

## Missing values

Missing values are represented as **"NA"** (without the quotation marks). The number of missing values for a given variable is provided in the column "Missing values" [below](#), together with the reason for values missing. Please note that some non-missing values *contain* the same letters, such as **"NAm"** (North America) in the "Origin" column (or **"Nasua nasua"** in the "Name" column).

## Special characters

Further remarks on characters that potentially cause trouble when importing the data:

- *Space* – spaces ( ) occur in the columns "Name", "Author", "Family", "Order" and "Class".
- *Quotation mark* – single quotation marks ( '... ' ) and apostrophes ( ' ) occur in the columns "Name" and "Author", respectively.
- *Comma* – commata ( , ) occur in the columns "Author", "Origin", "CurDis", "Pathw1", "Pathw2" and "LifeSt".
- *Decimal point* – the file uses no decimal points ( . ), as all numerical variables are integers.
- *Semicolon* – semicola ( ; ) are exclusively used as row delimiters, never in table cells.
- *Other punctuation* – the columns "Name" and "Author" contain hyphens ( - ), periods ( . ), colons ( : ), brackets ( ( ) ), ampersands ( & ) and/or crosses ( × ).
- *Diacritics* – the columns "Name" and "Author" contain certain diacritics (viz. **Á, á, ä, å, ç, é, è, ë, í, ñ, ö, ø, ø, ü**).

All remaining characters are alphanumeric (**A–Z, a–z, 0–9**).

## Importing the data in R

The **R** function `read.csv2` (using its default parameterisation) should do the job of importing the data and creating a data frame from them. (You might need to add `as.is=TRUE` if you do not wish character variables to be converted to factors.)

## Columns

The following table lists all column headings (variable names) of the data file (`assess.txt`), and explains their meaning, variable type, value range etc.

<i>Column</i>	<i>Explanation</i>	<i>Type</i>	<i>Value range</i>	<i>Missing values</i>	<i>Notes</i>
<b>Name</b>	Scientific name of the species (taxon)	character	[text string]	none	
<b>Author</b>	Authority of the species (taxon) name	character	[text string]	56 (No Author specified)	
<b>Rank</b>	Taxonomic rank	character	<b>form, klepton, section, species, subspecies, variety</b>	none	
<b>Genus</b>	Scientific name of the "genus"	character	[text string]	none	
<b>Family</b>	Scientific name of the "family"	character	[text string]	none	including 6 occurrences of "incertae sedis"
<b>Order</b>	Scientific name of the "order"	character	[text string]	none	including 5 occurrences of "incertae sedis"
<b>Class</b>	Scientific name of the "class"	character	[text string]	none	including 1 occurrence of "incertae sedis"
<b>Phylum</b>	Scientific name of the "phylum" or "division"	character	[text string]	none	
<b>Kingd</b>	Scientific name of the "kingdom"	character	[text string]	none	
<b>Status</b>	Establishment/assessment status of the species	character	<b>reproducing, DoorKnocker, RegionallyAlien, DistanceEffect</b>	none	see Box 1 of the original paper for definitions
<b>Mainl</b>	The assessment applies to mainland Norway (otherwise to Svalbard)	logical	<b>TRUE, FALSE</b>	none	
<b>Origin</b>	Areas (continents and/or oceans) included in the natural range	character	[text string] (continents: <b>Afr</b> [ica], <b>As</b> [ia], <b>Eur</b> [ope], <b>NAm</b> [North or Central America], <b>Oc</b> [eania], <b>SAm</b> [South America]; oceans: <b>Arct</b> [ic], <b>Atl</b> [antic], <b>Balt</b> [ic], <b>Black</b> , <b>Casp</b> [ian], <b>Ind</b> [ian], <b>Med</b> [iterranean], <b>Pac</b> [ific], <b>South</b> [ern] Ocean/Sea)	5 (No Area specified)	comma-delimited list
<b>CurDis</b>	Areas (continents and/or oceans) included in the current distribution	character	[text string] (values as for the "Origin" column)	6 (No Area specified)	comma-delimited list
<b>Pathw1</b>	Introductory pathway category	character	[text string]	88 (information Not Available)	comma-delimited list of abbreviations that are <a href="#">explained here</a>
<b>Pathw2</b>	Introductory pathway subcategory	character	[text string]	88 (information Not Available)	comma-delimited list of abbreviations that are <a href="#">explained here</a>

<i>Column</i>	<i>Explanation</i>	<i>Type</i>	<i>Value range</i>	<i>Missing values</i>	<i>Notes</i>
<b>LifeSt</b>	The lifestyle or habitat type of the species	character	[text string] ( <b>alp</b> [ine or tundra], <b>for</b> [ests], <b>lim</b> [nic/freshwater], <b>low</b> [lands], <b>mar</b> [ine and coastal], <b>par</b> [arasitic], <b>urb</b> [an], <b>wet</b> [lands])	42 (information Not Available)	comma-delimited list
<b>Ecosys</b>	Ecosystems undergoing substantial changes due to the species	character	[text string]	1261 (information Not Available or Not Applicable)	comma-delimited list of abbreviations that are <a href="#">explained here</a>
<b>Observ</b>	Year of first documented observation	integer	<b>1750–2017</b>	199 (year Not Available or Not Applicable)	note that the historical delimitation excludes alien species that "had been <i>established with a stably reproducing population</i> in Norway by the year 1800", but not species that have merely been <i>observed</i> prior to 1800
<b>AOO</b>	Total area of occupancy	integer	<b>0–243200</b>	none	see Box 1 of the original paper for definition
<b>Imp12</b>	Impact category obtained in the previous assessment (2012)	character	<b>NR, NK, LO, PH, HI, SE</b>	none	for details on and results of the 2012 assessments, see <a href="#">Gederaas et al. (2013)</a>
<b>Impact</b>	Impact category obtained in the present assessment	character	<b>NK, LO, PH, HI, SE</b>	none	see Table 1 of the original paper
<b>minImp</b>	Minimum impact category incorporating uncertainty	character	<b>NK, LO, PH, HI, SE</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxImp</b>	Maximum impact category incorporating uncertainty	character	<b>NK, LO, PH, HI, SE</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>InvPot</b>	Score for invasion potential	integer	<b>1–4</b>	none	i.e. score on the <i>x</i> -axis of Fig. 1 in the original paper
<b>minInv</b>	Minimum score for invasion potential incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxInv</b>	Maximum score for invasion potential incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>clmInv</b>	Is the score for invasion potential affected by climate change	logical	<b>TRUE, FALSE</b>	245 (information Not Available)	i.e., would the score have been lower if the projected climate change in the 50-year period from 2017 to 2066 had been disregarded?
<b>EcoEff</b>	Score for ecological effect	integer	<b>1–4</b>	none	i.e. score on the <i>y</i> -axis of Fig. 1 in the original paper

<i>Column</i>	<i>Explanation</i>	<i>Type</i>	<i>Value range</i>	<i>Missing values</i>	<i>Notes</i>
<b>minEff</b>	Minimum score for ecological effect incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxEff</b>	Maximum score for ecological effect incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>clmEff</b>	Is the score for ecological effect affected by climate change	logical	<b>TRUE, FALSE</b>	404 (information Not Available)	i.e., would the score have been lower if the projected climate change in the 50-year period from 2017 to 2066 had been disregarded?
<b>A</b>	Score for criterion A (population lifetime)	integer	<b>1–4</b>	none	for details on the assessment criteria, see <a href="#">Sandvik et al. (2019)</a>
<b>minA</b>	Minimum score for criterion A incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxA</b>	Maximum score for criterion A incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>B</b>	Score for criterion B (expansion speed)	integer	<b>1–4</b>	none	for details on expansion speed, see <a href="#">Sandvik (2020)</a>
<b>minB</b>	Minimum score for criterion B incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxB</b>	Maximum score for criterion B incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>C</b>	Score for criterion C (colonisation of ecosystems)	integer	<b>1–4</b>	none	for details on the assessment criteria, see <a href="#">Sandvik et al. (2019)</a>
<b>minC</b>	Minimum score for criterion C incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxC</b>	Maximum score for criterion C incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>D</b>	Score for criterion D (effects on threatened or keystone species)	integer	<b>1–4</b>	none	for details on the assessment criteria, see <a href="#">Sandvik et al. (2019)</a>
<b>minD</b>	Minimum score for criterion D incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxD</b>	Maximum score for criterion D incorporating uncertainty	integer	<b>1–4</b>	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>

<i>Column</i>	<i>Explanation</i>	<i>Type</i>	<i>Value range</i>	<i>Missing values</i>	<i>Notes</i>
<b>E</b>	Score for criterion E (effects on other native species)	integer	1–4	none	for details on the assessment criteria, see <a href="#">Sandvik et al. (2019)</a>
<b>minE</b>	Minimum score for criterion E incorporating uncertainty	integer	1–4	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxE</b>	Maximum score for criterion E incorporating uncertainty	integer	1–4	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>F</b>	Score for criterion F (effects on threatened or rare ecosystems)	integer	1–4	none	for details on the assessment criteria, see <a href="#">Sandvik et al. (2019)</a>
<b>minF</b>	Minimum score for criterion F incorporating uncertainty	integer	1–4	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxF</b>	Maximum score for criterion F incorporating uncertainty	integer	1–4	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>G</b>	Score for criterion G (effects on other ecosystems)	integer	1–4	none	for details on the assessment criteria, see <a href="#">Sandvik et al. (2019)</a>
<b>minG</b>	Minimum score for criterion G incorporating uncertainty	integer	1–4	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxG</b>	Maximum score for criterion G incorporating uncertainty	integer	1–4	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>H</b>	Score for criterion H (genetic contamination)	integer	1–4	none	for details on the assessment criteria, see <a href="#">Sandvik et al. (2019)</a>
<b>minH</b>	Minimum score for criterion H incorporating uncertainty	integer	1–4	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxH</b>	Maximum score for criterion H incorporating uncertainty	integer	1–4	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>I</b>	Score for criterion I (transmission of parasites)	integer	1–4	none	for details on the assessment criteria, see <a href="#">Sandvik et al. (2019)</a>
<b>minI</b>	Minimum score for criterion I incorporating uncertainty	integer	1–4	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>
<b>maxI</b>	Maximum score for criterion I incorporating uncertainty	integer	1–4	none	for details on the treatment of uncertainty, see <a href="#">Sandvik et al. (2019)</a>

## Pathways

The following table lists the categories and subcategories of introduction pathways, as reported in the columns "Pathw1" and "Pathw2" of the data file (`assess.txt`).

Categorisation of pathways follows [CBD \(2014\)](#), which is based on [Hulme et al. \(2008\)](#).

*Introduction* is in this context defined as "any human activity that has the intended or unintended consequence that individual(s) of an alien species occur(s) in Norwegian nature" (where "Norwegian nature" excludes indoors environments; for production species, "Norwegian nature" also excludes the confined and species-specific production area of these species).

<i>Category (Pathw1)</i>	<i>Abbrev.</i>	<i>Subcategory (Pathw2)</i>	<i>Abbrev.</i>
<b>Release in nature</b>	rel	for use [commercial]	use
		for biological control	ctrl
		for hunting	hunt
		for fishery in the wild	fish
		for landscape/flora/fauna 'improvement' in the wild	impr
		for erosion control / dune stabilisation	eros
		for conservation purposes or wildlife management	mngm
		other intentional release	relx
<b>Escape from confinement</b>	esc	from agriculture	agr
		from forestry (including afforestation or reforestation)	for
		from horticulture	hort
		from ornamental purpose other than horticulture	orn
		of farmed animals	farm
		from fur farms	fur
		from aquaculture/mariculture	aque
		of live food or live bait	live
		of pet/aquarium/terrarium species [private]	pet
		from botanical gardens / zoos / aquaria [public]	bza
		from research and ex-situ breeding (in facilities)	res
		other escape from confinement	escx
<b>Contaminant</b>	cnt	as parasites on animals (hosts/vectors)	para
		as contaminants on animals (except parasites)	cnta
		as parasites on plants (hosts/vectors)	parp
		as contaminants on plants (except parasites)	cntp
		of seed	seed
		of food (including live food)	food
		of bait	bait
		of timber	timb
		of habitat material (soil, vegetation, ...)	habm
		of nursery material	nurs
other contaminant	cntx		

<i>Category (Pathw1)</i>	<i>Abbrev.</i>	<i>Subcategory (Pathw2)</i>	<i>Abbrev.</i>
<b>Stowaway</b>	stw	with people and their luggage/equipment	peop
		in or on vehicles (car, train, ...)	veh
		in or on airplanes	air
		in or on ships/boats	ship
		with ballast water <i>or ballast sand</i>	ball
		as hull fouling	hull
		with machinery/equipment	mach
		with containers/bulk	bulk
		with organic packing material, in particular wood	pack
		with angling/fishing equipment	angl
		with other means of transport	stwx
<b>Corridor</b>	cor	interconnected waterways/basins/seas	watr
		tunnels and land bridges	land
<b>Unaided spread</b>	spr	natural dispersal across borders of alien species that have been introduced through any of the above pathways	nat

## Ecosystems

The following table explains the abbreviations used in the "Ecosys" column of the data file (`assess.txt`).

The table is divided into two sections:

- Relevant [Red-listed ecological systems](#) (according to the Norwegian Red List of 2011)
- All major types of [ecological systems](#) (according to *Nature in Norway*)

The three columns of the table provide the abbreviation used in the data file, the full name, and the lifestyle to which the nature type belongs (column "LifeSt").

The reference of *Nature in Norway* is (for the time being only available in Norwegian):

**Halvorsen, R., et al. (2015) *Natur i Norge* (version 2.0).**

<https://artsdatabanken.no/NiN>

The reference of the Norwegian Red List of ecosystems is:

**Lindgaard, A., & Henriksen, S. (2011). *Norwegian Red List for Ecosystems and Habitat Types 2011*. Trondheim: Norwegian Biodiversity Information Centre.**



<i>Abbrev.</i>	<i>Name</i>	<i>Lifestyle</i>
	<b>Red-listed ecological systems</b>	
<b>NT</b>	<b>Near threatened</b>	
<b>NT-01</b>	Active marine delta	mar
<b>VU</b>	<b>Vulnerable</b>	
<b>VU-01</b>	North Sea sugar kelp forest	mar
<b>VU-02</b>	Sand-dune system	low
<b>VU-03</b>	Low-turbidity intermediate lake	lim
<b>VU-04</b>	Low-turbidity lime-poor lake	lim
<b>VU-05</b>	Coastal bog	wet
<b>VU-06</b>	Lowland open spring fen	wet
<b>VU-07</b>	Open lime-rich shallow-soil lowland system in the boreonemoral zone	low
<b>VU-08</b>	Semi-natural grassland	low
<b>VU-09</b>	Lime-rich beech woodland	for
<b>VU-10</b>	Lime-rich low-herb Norway spruce forest	for
<b>VU-11</b>	Lime-rich small-leaved lime woodland	for
<b>VU-12</b>	Norway spruce spring woodland	for
<b>VU-13</b>	Thermophilous spring woodland	for
<b>EN</b>	<b>Endangered</b>	
<b>EN-01</b>	Skagerrak sugar kelp forest	mar
<b>EN-02</b>	Southern fixed dunes	low
<b>EN-03</b>	Southern tidal meadow	low
<b>EN-04</b>	Lime-rich lake	lim
<b>EN-05</b>	Lime-rich pond and small lake	lim
<b>EN-06</b>	Oxbow lake, meander and flood channel	lim
<b>EN-07</b>	Hay fen expanse	wet
<b>EN-08</b>	Lime-rich lowland mire expanse	wet
<b>EN-09</b>	Lime-rich lowland mire margin	wet
<b>EN-10</b>	Coastal heath	low
<b>EN-11</b>	Hay meadow	low
<b>EN-12</b>	Coastal Norway spruce forest	for
<b>EN-13</b>	Coastal thermophilous Scots pine woodland	for
<b>CR</b>	<b>Critically endangered</b>	
<b>CR-01</b>	Hay fen margin	wet
	<b>Ecological systems</b>	
<b>F</b>	<b>Open freshwater</b>	
<b>F01</b>	River water	lim
<b>F02</b>	Circulating lake water	lim
<b>F03</b>	Non-circulating lake water	lim
<b>F04</b>	Highly modified river water	lim
<b>F05</b>	Highly modified lake water	lim

<i>Abbrev.</i>	<i>Name</i>	<i>Lifestyle</i>
<b>H</b>	<b>Marine water masses</b>	
<b>H01</b>	Ocean water masses	mar
<b>H02</b>	Water masses in fjords, lagoons and rock pools	mar
<b>H03</b>	Deepwater in lagoons and fjords	mar
<b>H04</b>	Highly modified marine water masses	mar
<b>I</b>	<b>Snow and Ice systems</b>	
<b>I01</b>	Snow and Ice-covered ground	alp
<b>I02</b>	Polar sea ice	alp
<b>L</b>	<b>Freshwater beds</b>	
<b>L01</b>	Shallow hard freshwater-bed	lim
<b>L02</b>	Shallow sediment freshwater-bed	lim
<b>L03</b>	Deep sediment freshwater-bed	lim
<b>L04</b>	Helophyte freshwater swamp	lim
<b>L05</b>	Freshwater-spring bed	lim
<b>L06</b>	Anoxic sediment freshwater-bed	lim
<b>L07</b>	Modified hard freshwater-bed	lim
<b>L08</b>	Modified sediment freshwater-bed	lim
<b>M</b>	<b>Marine Seabeds</b>	
<b>M01</b>	Shallow stable seabed	mar
<b>M02</b>	Deep stable seabed	mar
<b>M03</b>	Hydrolitoral rocky shore	mar
<b>M04</b>	Shallow sediment bed	mar
<b>M05</b>	Deep sediment bed	mar
<b>M06</b>	Coralline seabed	mar
<b>M07</b>	Sea meadow	mar
<b>M08</b>	Halophytic swamp	mar
<b>M09</b>	Rock-pool bed	mar
<b>M10</b>	Marine cave and overhang	mar
<b>M11</b>	Cold seep	mar
<b>M12</b>	Thermal vent	mar
<b>M13</b>	Anoxic sediment seabed	mar
<b>M14</b>	Modified stable seabed	mar
<b>M15</b>	Modified sediment seabed	mar
<b>T</b>	<b>Non-wetland terrestrial system</b>	
<b>T01</b>	Bare rock	low
<b>T02</b>	Open shallow-soil system	low
<b>T03</b>	Alpine heath, lee-side and tundra	alp
<b>T04</b>	Forest	for
<b>T05</b>	Cave and overhang	low
<b>T06</b>	Geo- to supralittoral rocky shore	mar
<b>T07</b>	Snow-bed	alp
<b>T08</b>	Bird-cliff meadow and bird-manured mound	mar
<b>T09</b>	Moss tundra	alp
<b>T10</b>	Arctic steppe	alp
<b>T11</b>	Saline foreshore/pan	mar
<b>T12</b>	Tidal meadow	low

<i>Abbrev.</i>	<i>Name</i>	<i>Lifestyle</i>
T13	Avalanche system	low
T14	Ridge	alp
T15	Waterfall-sprayed meadow	low
T16	Avalanche heath and meadow	low
T17	Active landslide system	low
T18	Open alluvial system	low
T19	Frost-churned ground	alp
T20	Kettle-hole heath	alp
T21	Sand-dune system	low
T22	Alpine grass meadow and grass tundra	alp
T23	Freshwater driftline	low
T24	Driftline	mar
T25	Historical landslide system	low
T26	Glacier foreland	alp
T27	Boulder field	alp
T28	Polar desert	alp
T29	Shingle-dominated shoreline	low
T30	Alluvial forest	for
T31	Boreal heath	low
T32	Semi-natural grassland	low
T33	Semi-natural tidal meadow	low
T34	Coastal heath	low
T35	Modified sediments	urb
T36	Dried-out wetlands and freshwater systems	low
T37	Artificial sediments	urb
T38	Tree plantation	for
T39	Modified hard surfaces	urb
T40	Meadow-like modified systems	low
T41	Meadow-like cultivated systems	low
T42	Flower beds and the like	low
T43	Lawns, parks and the like	low
T44	Arable land	low
T45	Cultivated permanent meadow	low
<b>V</b>	<b>Wetland systems</b>	
V01	Minerotrophic mire expanse	wet
V02	Mire- and swamp forest	wet
V03	Ombrotrophic mire	wet
V04	Spring	wet
V05	Thermal spring	wet
V06	Wet Snow-bed and snow-bed spring	wet
V07	Arctic permafrost wetland	wet
V08	Seashore swamp forest	wet
V09	Semi-natural fen	wet
V10	Semi-natural wet meadow	wet
V11	Peat quarry	wet
V12	Drained peatland	wet
V13	Artificial wetland system	wet