



EUNIS heathland, scrub and tundra habitat type, predicted distribution of habitat suitability - version 1, Nov. 2021

This metadata corresponds to the EUNIS heathland, scrub and tundra habitat types, predicted distribution of habitat suitability dataset.

These habitat types correspond to non-coastal land which is dry or only seasonally inundated (with the water table at or above ground level for less than half of the year) with greater than 30% vegetation cover. Tundra is characterised by the presence of permafrost. Heathland and scrub are defined as vegetation dominated by shrubs or dwarf shrubs of species that typically do not exceed 5 m maximum height. Includes shrub orchards, vineyards, hedges (which may have occasional tall trees). Also includes stands of climatically-limited dwarf trees (krummholz) < 3 m high, such as occur in extreme alpine conditions. Includes Salix and Frangula carrs. Excludes coppice (T47) and Alnus and Populus swamp forest (T15).

The modelled suitability for EUNIS heathland, scrub and tundra habitat types is an indication of where conditions are favourable for the habitat type based on sample plot data (Braun-Blanquet database) and the Maxent software package. The modelled suitability map may be used as a proxy for the geographical distribution of the habitat type. Note however that it is not representing the actual distribution of the habitat type. As predictors for the suitability modelling not only Climate and Soil parameters have been taken into account, but also so-called RS-EVB's, Remote Sensing-enabled Essential Biodiversity Variables like Landuse, Vegetation height, Phenology, and LAI (Leave Area Index). Because the EBV's are restricted by the extent of the Remote Sensing data (EEA38 countries and the United Kingdom) the modelling result does also not go beyond this boundary. The dataset is provided both in Geodatabase and Geopackage formats.

Simple

Date (Publication)	2021-11-15		
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Edition	01.00		
Citation identifier	eea_r_3035_1_km_eunis-hab-s_p_1940-2017_v01_r00		
Citation identifier	DAT-137-en		
Code	10.2909/156377d3-14ee-42f9-855e-71d8c710d441		
Point of contact	Organisation name	Individual name	Electronic mail address Website Role
	European Environment Agency		sdi@eea.europa.eu http://www.eea.europa.eu Point of contact
	European Environment Agency		sdi@eea.europa.eu Custodian

Point of contact

No information provided.

Point of contact

No information provided.

Maintenance and update frequency	Not planned
GEMET - INSPIRE themes, version 1.0	<ul style="list-style-type: none"> Habitats and biotopes
Keywords	
Keywords	
GEMET	<ul style="list-style-type: none"> tundra modelling

	<ul style="list-style-type: none"> • terrestrial ecosystem • natural area • habitat • heathland
Continents, countries, sea regions of the world.	<ul style="list-style-type: none"> • United Kingdom • EEA38 (from 2020)
Spatial scope	<ul style="list-style-type: none"> • European
EEA topics	<ul style="list-style-type: none"> • Biodiversity
EEA Management Plan	<ul style="list-style-type: none"> • 2021 1.1.4
Access constraints	Other restrictions
Other constraints	no limitations to public access
Use constraints	Other restrictions
Other constraints	EEA standard re-use policy: unless otherwise indicated, re-use of content on the EEA website for commercial or non-commercial purposes is permitted free of charge, provided that the source is acknowledged (https://www.eea.europa.eu/legal/copyright). Copyright holder: European Environment Agency (EEA).
Spatial representation type	Grid
Distance	1 km
Language of dataset	English
Topic category	<ul style="list-style-type: none"> • Biota



Begin date	1940-01-01		
End date	2017-12-31		
Coordinate reference system identifier	EPSG:3035		
Distribution format	<ul style="list-style-type: none"> • GDB (1) • Geopackage () 		
OnLine resource	Protocol	Linkage	Name
	EAA:FOLDERPATH	https://sdi.eea.europa.eu/webdav/datastore/public/eea_r_3035_1_km_eunis-hab-s_p_1940-2017_v01_r00/	
	WWW:URL	https://sdi.eea.europa.eu/data/156377d3-14ee-42f9-855e-71d8c710d441	Direct download
	ESRI:REST	https://bio.discomap.eea.europa.eu/arcgis/rest/services/EUNIS/Mosaic_Heathlands/ImageServer	Suitability Layer
	OGC:WMS	https://bio.discomap.eea.europa.eu/arcgis/services/EUNIS/Mosaic_Heathlands/ImageServer/WMServer?request=GetCapabilities&service=WMS	
	WWW:URL	https://sdi.eea.europa.eu/data/f5946d76-bf09-4261-8f2e-6218210ae3af?path=%2FEUNIS%20habitat%20classification%20revision%20documentation	EUNIS documentation for habitat classification
OnLine resource	Protocol	Linkage	Name
	DOI	https://doi.org/10.2909/156377d3-14ee-42f9-855e-71d8c710d441	
Hierarchy level	Dataset		

Conformance result

Title	Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services
Date (Publication)	2010-12-08
Explanation	See the referenced specification
Statement	The database compiled for the Braun-Blanquet project is a compilation of various national and regional vegetation databases. The maintenance of these databases is in principle in the hands of the custodians. However, before uploading the databases into Braun-Blanquet database a quality check is performed by Alterra and Masaryk University. If possible, detected errors are corrected and reported back to the data provider. For the modelling of the habitat suitability map the Maxent software is used (http://www.cs.princeton.edu/~schapire/maxent/). The grid values in the map represent the probability (ranging from 0-1) that the cell is suitable for the habitat.

The grid file represents the habitat suitability of the EUNIS type. For the modelling the widely used software Maxent for maximum entropy modelling of species' geographic distributions was used. Maxent is a general-purpose machine-learning method with a simple and precise mathematical formulation, and has a number of aspects that make it well-suited for species distribution modelling when only presence (occurrence) data but not absence data are available (Phillips et al. 2006). Because EUNIS habitats have a particular species composition, they are assumed to respond to specific ecological requirements, allowing us to generate correlative estimates of geographic distributions. Modelling habitats that have been floristically defined is a well-known procedure for ecological modelling at local scales, and a promising technique to be applied also at the continental level.

The Maxent method considers presence data (known observations of a given entity) and the so-called background data. Background data comprise a set of points used to describe the environmental variation of the study area according to the available environmental layers. It is assumed that these layers represent well the most important ecological gradients on a European scale. As layers the following environmental parameters have been used: Potential Evapotranspiration, Topsoil pH, Solar radiation, Temperature Seasonality (standard deviation *100), Mean Temperature of Wettest Quarter, Annual Precipitation, Precipitation Seasonality (Coefficient of Variation), Precipitation of Warmest Quarter & Distance to water (rivers, lakes, sea) and the RS-EBV's (Remote Sensing-enabled Essential Biodiversity Variables) Inundation; occurrence, Phenology; End of Season (day number), Phenology; Length of season (days), Phenology; Low of season (day number), Phenology; NDVI mean, Phenology; NDVI seasonality, Phenology; Peak of season (day number), Phenology; Start of Season (day number), Vegetation height (m). For more information on the RS-EBV's see the document "Description of European RS-EBV's and abiotic site conditions" provided with the dataset.

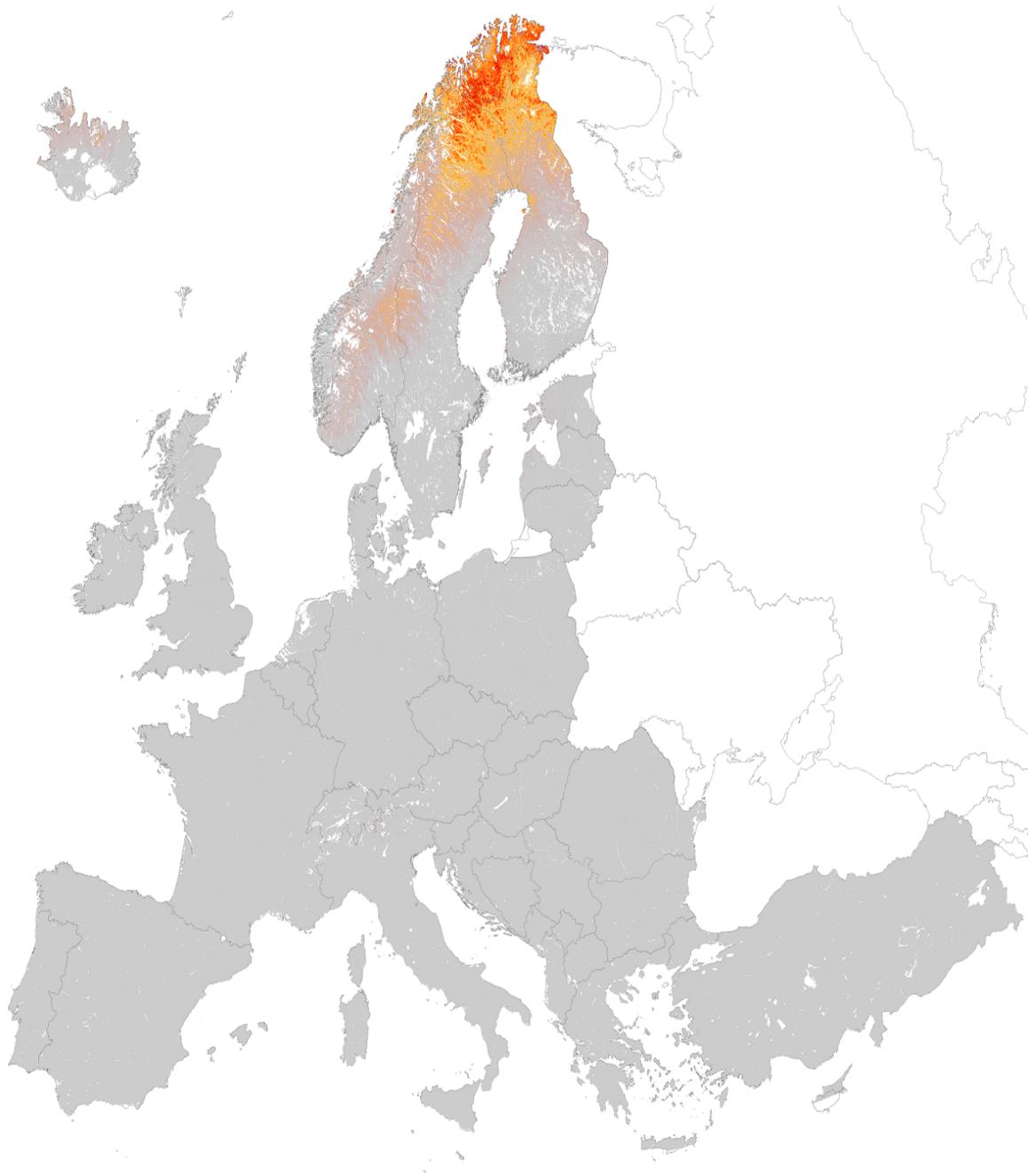
Supporting information on the creation of this dataset is available in the ETC/BD Technical paper 9/2018: Distribution and habitat suitability maps of revised EUNIS grassland, heathland, scrub, tundra and forest types at: https://www.eionet.europa.eu/etcs/etc-bd/products/etc-bd-reports/maps_revised_eunis_grassland_heath_scrub_tundra_forest.

Source	<ul style="list-style-type: none"> • EUNIS heathland, scrub and tundra habitat types, distribution based on vegetation plot data - version 1, Nov. 2021
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Metadata

File identifier	156377d3-14ee-42f9-855e-71d8c710d441 XML										
Metadata language	English										
Character set	UTF8										
Hierarchy level	Dataset										
Date stamp	2024-12-17T09:12:04.916941Z										
Metadata standard name	ISO 19115/19139										
Metadata standard version	1.0										
Metadata author	<table border="1"> <thead> <tr> <th>Organisation name</th> <th>Individual name</th> <th>Electronic mail address</th> <th>Website Role</th> </tr> </thead> <tbody> <tr> <td>European Environment Agency</td> <td></td> <td>sdi@eea.europa.eu</td> <td>Point of contact</td> </tr> </tbody> </table>	Organisation name	Individual name	Electronic mail address	Website Role	European Environment Agency		sdi@eea.europa.eu	Point of contact		
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Overviews



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