EEA geospatial data catalogue

EUNIS man-made habitat types, predicted distribution of habitat suitability - version 1, Nov. 2021

This metadata corresponds to the EUNIS Vegetated man-made habitats types, predicted distribution of habitat suitability dataset.

Anthropogenic habitats which are dominated by vegetation and usually subject to regular management but also arising from recent abandonment of previously cultivated ground. This includes areas cultivated for crops, orchards and grasslands such as lawns and sports fields which are a result of reseeding and often heavily fertilised together with planted and managed forests and other anthropogenic habitats with trees such as avenues. Non vegetated anthropogenic habitats are Constructed, industrial and other artificial habitats (Y).

The modelled suitability for EUNIS vegetated man-made 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. However, note that it is not representing the actual distribution of the habitat type. As predictors for the suitabilty 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, LAI (Leave Area Index) and Population density. 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-v_p_1940-2017_v01_r00
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Point of contact	**Organisation name** / **Individual name** / **Electronic mail address** / **Role** European Environment Agency / info@eea.eur info@eea.europa.eu / Point of contact European Environment Agency / info@eea.eur info@eea.europa.eu / Custodian

Point of contact

No information provided.

Maintenance and update frequency	Not planned
GEMET - INSPIRE themes, version 1.0	• Habitats and biotopes
Keywords	
Keywords	
GEMET	• terrestrial ecosystem • modelling

	• natural area • habitat
Continents, countries, sea regions of the world.	• EEA38 (from 2020) • United Kingdom
Spatial scope	• European
EEA topics	• Biodiversity
EEA Management Plan	• 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	• Biota
Begin date	1940-01-01
End date	2017-12-31

71.16	N	27.64	S	44.81	E	-31.28	W

CRS identifier	EPSG:3035
Distribution format	• Geopackage (1) • GDB ( )

OnLine resource

No information provided.

OnLine resource

No information provided.

OnLine resource

No information provided.

Hierarchy level	Dataset

Conformance result

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 (Philips 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); Population density.

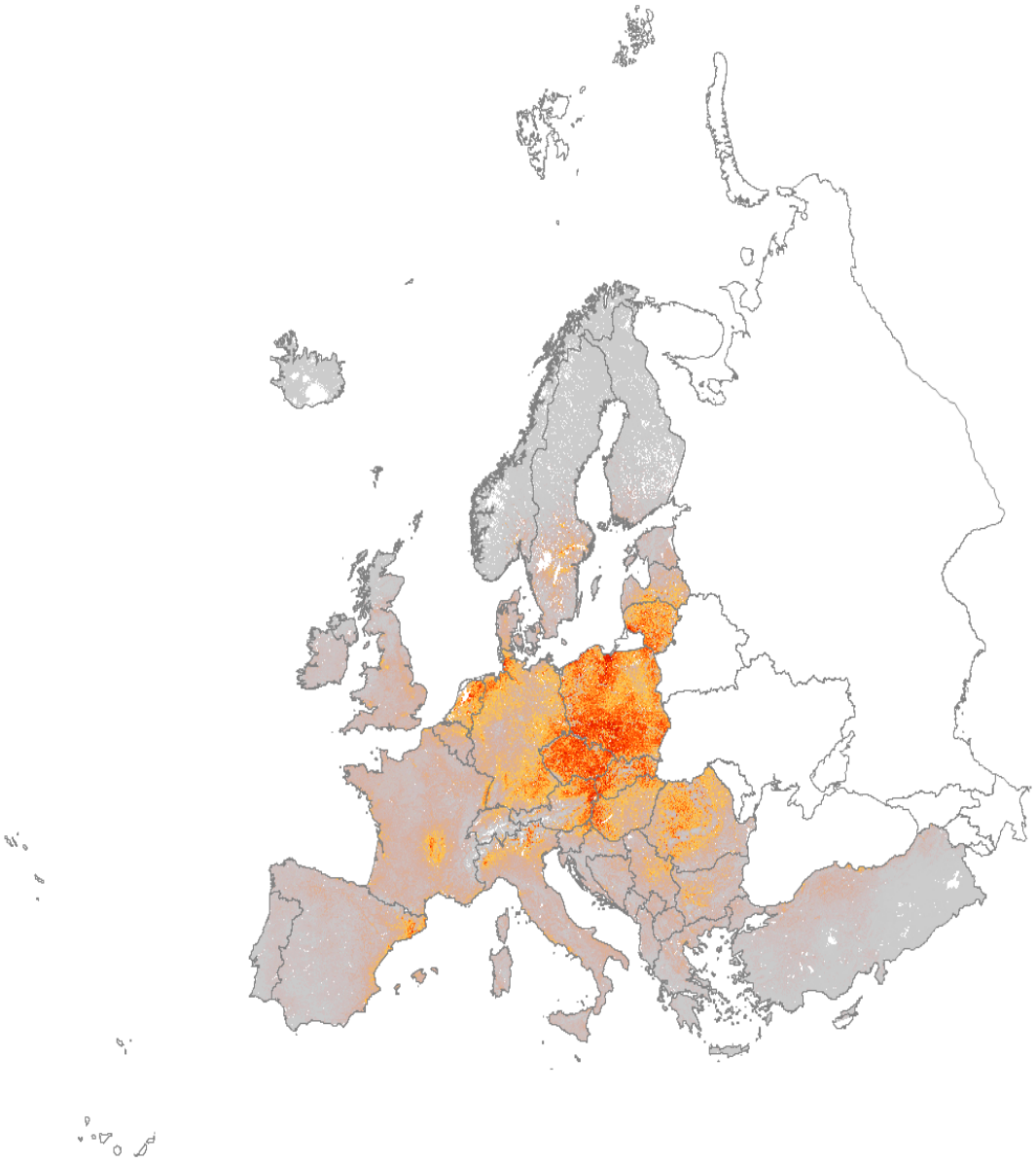
For more information on the RS-EBV's see https://www.synbiosys.alterra.nl/nextgeoss/docs/Description_Abiotic_and_RSEBVs.pdf

	Supporting information on the methodology used to create the maps is provided with the dataset.
Source	• EUNIS vegetated man-made habitat types, distribution based on vegetation plot data - version 1, Nov. 2021

Metadata

File identifier	05cbf86d-0168-47f5-9384-18c84b14f59c XML
Metadata language	English
Character set	UTF8
Hierarchy level	Dataset
Date stamp	2022-04-12T09:05:39.921Z
Metadata standard name	ISO 19115/19139
Metadata standard version	1.0
Metadata author	**Organisation name** / **Individual name** / **Electronic mail address** / **Role** European Environment Agency / / sdi@eea.eur sdi@eea.europa.eu / Point of contact

Overviews



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