EEA geospatial data catalogue

EUNIS forest and other wooded land habitat types, predicted distribution of habitat suitability - version 1, Nov. 2021

This metadata corresponds to the EUNIS forest and other wooded land habitat types, predicted distribution of habitat suitability dataset.

The forest and other wooded land habitat type is the land where the dominant vegetation is, or was until very recently, trees with a canopy cover of at least 10%. It includes temporarily unstocked areas due to clear-cutting as part of a forest management practice or natural disasters which are expected to be regenerated within 5 years but does not include land that is predominantly under agricultural or urban land use. Trees are defined as woody plants, typically single-stemmed, that can reach a height of at least 5 m at maturity unless stunted by poor climate or soil. Includes Alnus and Populus swamp forest and riverine Salix forest. Excludes Corylus avellana scrub and Salix and Frangula carrs. Excludes lines of trees, coppices, regularly tilled tree nurseries. Excludes stands of climatically-limited dwarf trees (krummholz) < 3m high, such as occur at the arctic or alpine tree limit which are considered scrub (section S) . Excludes tree stands in agricultural production systems, such as fruit tree plantations, olive orchards and agroforestry systems (dehesa and montado) where crops are grown under tree cover - canopy less than 10%, which are listed under sparsely wooded grasslands. Old plantations which have many of the characteristics of natural or semi-natural forests are included, more intensively managed, and less natural, forests are included in vegetated man-made habitats.

The modelled suitability for EUNIS forest and other wooded land 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 land use, vegetation height, phenology, and LAI (Leaf 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
Date (Creation)	2019-03-01
Edition	01.00
Citation identifier	eea_r_3035_1_km_eunis-hab-t_p_1940-2017_v01_r00
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
EEA topics	• Biodiversity
GEMET - INSPIRE themes, version 1.0	• Habitats and biotopes
Keywords	

Keywords	
GEMET	• modelling • terrestrial ecosystem • forest biodiversity • woodland ecosystem • natural area • habitat • forest
Continents, countries, sea regions of the world.	• EEA38 (from 2020) • United Kingdom
Spatial scope	• European
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

71.16	N	27.64	S	44.81	E	-31.28	W

Begin date	1940-01-01
End date	2017-12-31
CRS identifier	EPSG:3035
Distribution format	• GDB (1) • Geopackage ( )

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

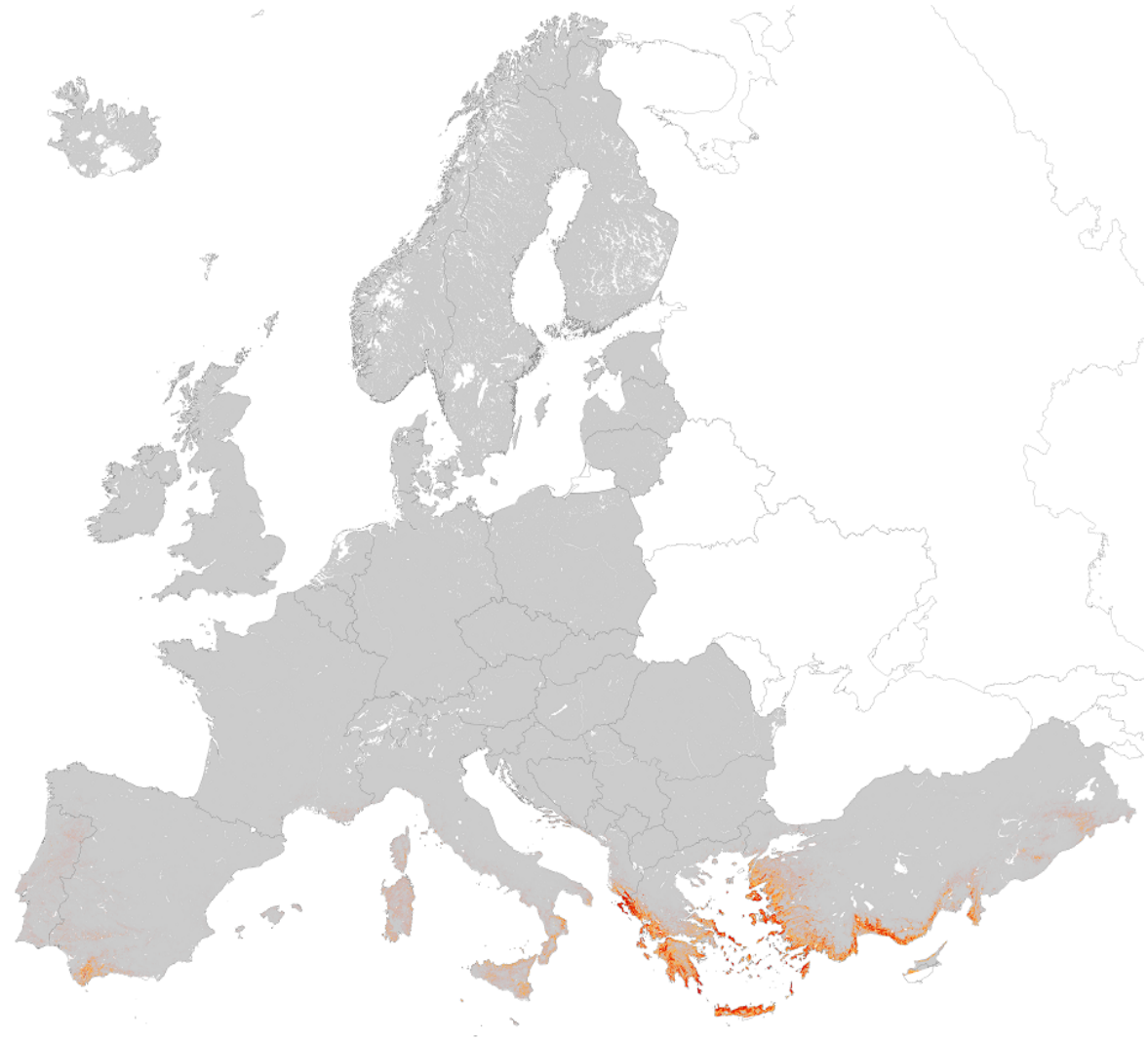
Statement	The database compiled for the Braun-Blanquet project is a compilation of various national and regional vegetation databases. The maintenance of these databases is in principle in the hands of the custodians. However, before uploading the databases into Braun-Blanquet database a quality check 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). For more information on the RS-EBV's see the document "Description of European RS-EBV'sand 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	• EUNIS forest and other wooded land habitat types, distribution based on vegetation plot data - version 1, Nov. 2021

Metadata

File identifier	169b69b5-a1f8-4aed-8042-bfcb4c1e4948 XML
Metadata language	English
Character set	UTF8
Hierarchy level	Dataset
Date stamp	2022-04-12T09:28:31.638Z
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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