

EUNIS habitat type F3.1c, predicted habitat suitability - version 1, June 2016

The modelled suitability for the EUNIS habitat type 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.

Also note that predictions are less reliable due to data deficiency in the eastern part of Europe, and to a lesser extent to the Scandinavian countries.

Geographic restriction for plot observations: n/a

Remarks: Prediction in eastern part of Europe (Türkiye) uncertain due to lack of data for that area.

Simple

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Edition	01			
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Point of contact	Organisation name	Individual name	Electronic mail address	Website Role
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	European Environment Agency		sdi@eea.europa.eu	Custodian

Point of contact

No information provided.

Maintenance and update frequency	Unknown
GEMET - INSPIRE themes, version 1.0	<ul style="list-style-type: none"> Habitats and biotopes
GEMET	<ul style="list-style-type: none"> tundra natural area terrestrial ecosystem heathland
Keywords	
Keywords	
Place	<ul style="list-style-type: none"> Europe
EEA topics	<ul style="list-style-type: none"> Biodiversity
Use limitation	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 (http://www.eea.europa.eu/legal/copyright). Copyright holder: European Environment Agency (EEA).

Access constraints	Other restrictions
Other constraints	no limitations to public access
Spatial representation type	Grid
Distance	1 1 km
Language of dataset	English
Character set	UTF8
Topic category	<ul style="list-style-type: none">• Biota

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Begin date	1940-01-01		
End date	2011-12-31		
Coordinate reference system identifier	EPSG:3035		
Distribution format	• GeoTIFF ()		
OnLine resource	Protocol	Linkage	Name
	EEA:FILEPATH	https://sdi.eea.europa.eu/webdav/datastore/public/eea_r_3035_1_km_eunis-hab-f3-1c_p_1940-2011_v01_r00/F3-1c_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/1b6b9175-8ac9-468f-888a-1b7e19bf12a1	Direct download
Hierarchy level	Dataset		

Conformance result

Date (Publication)	2010-12-08
Explanation	See the referenced specification

Statement	<p>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.</p> <p>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.</p> <p>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).</p> <p>Statistical output of the model:</p> <p>#Training samples: 666</p> <p>Regularized training gain: 1.2802</p>
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Unregularized training gain: 1.3799

Iterations: 500

Training AUC: 0.9059

#Test samples: 73

Test gain: 1.0738

Test AUC: 0.8732

AUC Standard Deviation: 0.0124

#Background points: 5666

bio_12_etr2_ras contribution: 0.4269

bio_15_etr2_ras contribution: 2.9731

bio_18_etr2_ras contribution: 2.3412

bio_4_etr2_ras contribution: 66.1064

bio_8_etr2_ras contribution: 1.2798

bld_m_sd1_1km_eu_ll contribution: 4.9566

cecsum_m_sd1_1km_eu_ll contribution: 0.0476

clyppt_m_sd1_1km_eu_ll contribution: 1.1946

crvol_m_sd1_1km_eu_ll contribution: 2.1861

dist2water1km contribution: 0.0257

orcdrc_m_sd1_1km_eu_ll contribution: 0.1318

pet_he_yr contribution: 6.821

phihox_m_sd1_1km_eu_ll contribution: 9.5905

sltppt_m_sd1_1km_eu_ll contribution: 0.0545

sndppt_m_sd1_1km_eu_ll contribution: 1.6297

solar_1km contribution: 0.2346

bio_12_etr2_ras permutation importance: 2.3055

bio_15_etr2_ras permutation importance: 3.2361

bio_18_etr2_ras permutation importance: 2.2278

bio_4_etr2_ras permutation importance: 55.1138

bio_8_etr2_ras permutation importance: 0.9665

bld_m_sd1_1km_eu_ll permutation importance: 6.9569

cecsum_m_sd1_1km_eu_ll permutation importance: 0.4431

clyppt_m_sd1_1km_eu_ll permutation importance: 1.4189

crvol_m_sd1_1km_eu_ll permutation importance: 7.1748

dist2water1km permutation importance: 0

orcdrc_m_sd1_1km_eu_ll permutation importance: 0.6062

pet_he_yr permutation importance: 8.9596

phihox_m_sd1_1km_eu_ll permutation importance: 7.6888

sltppt_m_sd1_1km_eu_ll permutation importance: 0.1921

sndppt_m_sd1_1km_eu_ll permutation importance: 2.6035

solar_1km permutation importance: 0.1064

Entropy: 7.3637

Prevalence (average of logistic output over background sites): 0.1358

Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.04
Fixed cumulative value 1 area: 0.3789
Fixed cumulative value 1 training omission: 0.0045
Fixed cumulative value 1 test omission: 0.0274
Fixed cumulative value 1 binomial probability: 6.88E-26
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.1686
Fixed cumulative value 5 area: 0.2734
Fixed cumulative value 5 training omission: 0.0255
Fixed cumulative value 5 test omission: 0.0959
Fixed cumulative value 5 binomial probability: 5.89E-34
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.2755
Fixed cumulative value 10 area: 0.2238
Fixed cumulative value 10 training omission: 0.0586
Fixed cumulative value 10 test omission: 0.1233
Fixed cumulative value 10 binomial probability: 3.71E-41
Minimum training presence cumulative threshold: 0.0459
Minimum training presence logistic threshold: 0.0014
Minimum training presence area: 0.6442
Minimum training presence training omission: 0
Minimum training presence test omission: 0
Minimum training presence binomial probability: 1.08E-10
10 percentile training presence cumulative threshold: 15.122
10 percentile training presence logistic threshold: 0.365
10 percentile training presence area: 0.1936
10 percentile training presence training omission: 0.0991
10 percentile training presence test omission: 0.1918
10 percentile training presence binomial probability: 1.32E-40
Equal training sensitivity and specificity cumulative threshold: 22.4874
Equal training sensitivity and specificity logistic threshold: 0.4269
Equal training sensitivity and specificity area: 0.1624
Equal training sensitivity and specificity training omission: 0.1622
Equal training sensitivity and specificity test omission: 0.3425
Equal training sensitivity and specificity binomial probability: 9.15E-31
Maximum training sensitivity plus specificity cumulative threshold: 9.7059
Maximum training sensitivity plus specificity logistic threshold: 0.2681
Maximum training sensitivity plus specificity area: 0.2261
Maximum training sensitivity plus specificity training omission: 0.0526
Maximum training sensitivity plus specificity test omission: 0.1233
Maximum training sensitivity plus specificity binomial probability: 1.33E-40
Equal test sensitivity and specificity cumulative threshold: 15.4509

Equal test sensitivity and specificity logistic threshold: 0.3683

Equal test sensitivity and specificity area: 0.192

Equal test sensitivity and specificity training omission: 0.1021

Equal test sensitivity and specificity test omission: 0.1918

Equal test sensitivity and specificity binomial probability: 4.77E-41

Maximum test sensitivity plus specificity cumulative threshold: 10.7774

Maximum test sensitivity plus specificity logistic threshold: 0.2889

Maximum test sensitivity plus specificity area: 0.2183

Maximum test sensitivity plus specificity training omission: 0.0646

Maximum test sensitivity plus specificity test omission: 0.1233

Maximum test sensitivity plus specificity binomial probability: 1.58E-42

Balance training omission, predicted area and threshold value cumulative threshold: 1.6988

Balance training omission, predicted area and threshold value logistic threshold: 0.0686

Balance training omission, predicted area and threshold value area: 0.3449

Balance training omission, predicted area and threshold value training omission: 0.006

Balance training omission, predicted area and threshold value test omission: 0.0411

Balance training omission, predicted area and threshold value binomial probability: 1.26E-28

Equate entropy of thresholded and original distributions cumulative threshold: 4.6521

Equate entropy of thresholded and original distributions logistic threshold: 0.1577

Equate entropy of thresholded and original distributions area: 0.2783

Equate entropy of thresholded and original distributions training omission: 0.021

Equate entropy of thresholded and original distributions test omission: 0.0959

Equate entropy of thresholded and original distributions binomial probability: 4.13E-33

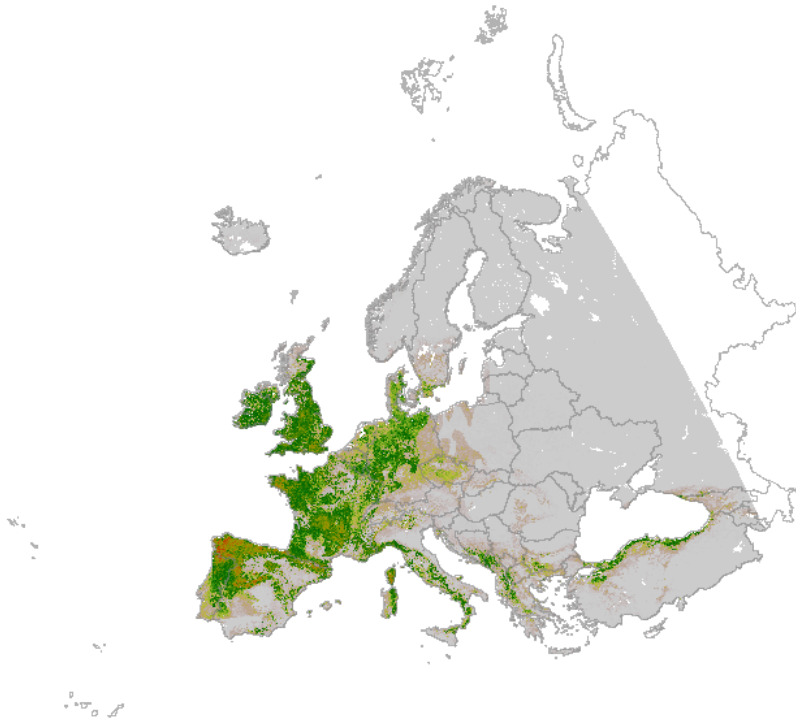
Source

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Metadata

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Hierarchy level	Dataset		
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Metadata standard name	ISO 19115/19139		
Metadata standard version	1.0		
Metadata author	Organisation name	Individual name	Electronic mail address Website Role
	European Environment Agency		sdi@eea.europa.eu Point of contact

Overviews



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