

EUNIS habitat type F2.2b, 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 (Caucasus, Türkiye) uncertain due to lack of data for that area.

Simple

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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"> natural area tundra 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-f2-2b_p_1940-2011_v01_r00/F2-2b_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/91ea19b6-5ece-41b5-9630-9c44897a4017	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: 187</p> <p>Regularized training gain: 2.4348</p>
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Unregularized training gain: 2.6387
Iterations: 500
Training AUC: 0.9745
#Test samples: 20
Test gain: 1.6217
Test AUC: 0.8935
AUC Standard Deviation: 0.0524
#Background points: 5187
bio_12_etr2_ras contribution: 12.8929
bio_15_etr2_ras contribution: 0.3548
bio_18_etr2_ras contribution: 2.9895
bio_4_etr2_ras contribution: 15.818
bio_8_etr2_ras contribution: 0.9385
bld_m_sd1_1km_eu_ll contribution: 7.0208
cecum_m_sd1_1km_eu_ll contribution: 2.2118
clyppt_m_sd1_1km_eu_ll contribution: 0.5595
crvol_m_sd1_1km_eu_ll contribution: 19.0389
dist2water1km contribution: 0.004
orcdrc_m_sd1_1km_eu_ll contribution: 1.3245
pet_he_yr contribution: 5.0007
phihox_m_sd1_1km_eu_ll contribution: 1.9823
sltppt_m_sd1_1km_eu_ll contribution: 0.0419
sndppt_m_sd1_1km_eu_ll contribution: 1.363
solar_1km contribution: 28.4589
bio_12_etr2_ras permutation importance: 4.0254
bio_15_etr2_ras permutation importance: 0.8479
bio_18_etr2_ras permutation importance: 5.6659
bio_4_etr2_ras permutation importance: 7.0556
bio_8_etr2_ras permutation importance: 0.3611
bld_m_sd1_1km_eu_ll permutation importance: 0.2946
cecum_m_sd1_1km_eu_ll permutation importance: 5.477
clyppt_m_sd1_1km_eu_ll permutation importance: 1.0235
crvol_m_sd1_1km_eu_ll permutation importance: 47.0299
dist2water1km permutation importance: 0.1564
orcdrc_m_sd1_1km_eu_ll permutation importance: 3.6347
pet_he_yr permutation importance: 14.5072
phihox_m_sd1_1km_eu_ll permutation importance: 4.1548
sltppt_m_sd1_1km_eu_ll permutation importance: 0.8662
sndppt_m_sd1_1km_eu_ll permutation importance: 3.1646
solar_1km permutation importance: 1.735
Entropy: 6.1259
Prevalence (average of logistic output over background sites): 0.0415
Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.0065
Fixed cumulative value 1 area: 0.2568
Fixed cumulative value 1 training omission: 0
Fixed cumulative value 1 test omission: 0.1
Fixed cumulative value 1 binomial probability: 2.57E-09
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.0666
Fixed cumulative value 5 area: 0.1163
Fixed cumulative value 5 training omission: 0.0267
Fixed cumulative value 5 test omission: 0.15
Fixed cumulative value 5 binomial probability: 1.04E-13
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.1538
Fixed cumulative value 10 area: 0.0787
Fixed cumulative value 10 training omission: 0.0428
Fixed cumulative value 10 test omission: 0.15
Fixed cumulative value 10 binomial probability: 1.53E-16
Minimum training presence cumulative threshold: 2.44
Minimum training presence logistic threshold: 0.0276
Minimum training presence area: 0.1652
Minimum training presence training omission: 0
Minimum training presence test omission: 0.1
Minimum training presence binomial probability: 1.14E-12
10 percentile training presence cumulative threshold: 18.0174
10 percentile training presence logistic threshold: 0.2683
10 percentile training presence area: 0.0522
10 percentile training presence training omission: 0.0963
10 percentile training presence test omission: 0.2
10 percentile training presence binomial probability: 1.22E-17
Equal training sensitivity and specificity cumulative threshold: 13.7205
Equal training sensitivity and specificity logistic threshold: 0.2123
Equal training sensitivity and specificity area: 0.0642
Equal training sensitivity and specificity training omission: 0.0642
Equal training sensitivity and specificity test omission: 0.15
Equal training sensitivity and specificity binomial probability: 5.05E-18
Maximum training sensitivity plus specificity cumulative threshold: 9.4437
Maximum training sensitivity plus specificity logistic threshold: 0.1466
Maximum training sensitivity plus specificity area: 0.0814
Maximum training sensitivity plus specificity training omission: 0.0321
Maximum training sensitivity plus specificity test omission: 0.15
Maximum training sensitivity plus specificity binomial probability: 2.69E-16
Equal test sensitivity and specificity cumulative threshold: 3.0091

Equal test sensitivity and specificity logistic threshold: 0.0373

Equal test sensitivity and specificity area: 0.15

Equal test sensitivity and specificity training omission: 0.0053

Equal test sensitivity and specificity test omission: 0.15

Equal test sensitivity and specificity binomial probability: 7.10E-12

Maximum test sensitivity plus specificity cumulative threshold: 17.5345

Maximum test sensitivity plus specificity logistic threshold: 0.2592

Maximum test sensitivity plus specificity area: 0.0534

Maximum test sensitivity plus specificity training omission: 0.0963

Maximum test sensitivity plus specificity test omission: 0.15

Maximum test sensitivity plus specificity binomial probability: 2.28E-19

Balance training omission, predicted area and threshold value cumulative threshold: 2.44

Balance training omission, predicted area and threshold value logistic threshold: 0.0276

Balance training omission, predicted area and threshold value area: 0.1652

Balance training omission, predicted area and threshold value training omission: 0

Balance training omission, predicted area and threshold value test omission: 0.1

Balance training omission, predicted area and threshold value binomial probability: 1.14E-12

Equate entropy of thresholded and original distributions cumulative threshold: 8.2574

Equate entropy of thresholded and original distributions logistic threshold: 0.1254

Equate entropy of thresholded and original distributions area: 0.0881

Equate entropy of thresholded and original distributions training omission: 0.0321

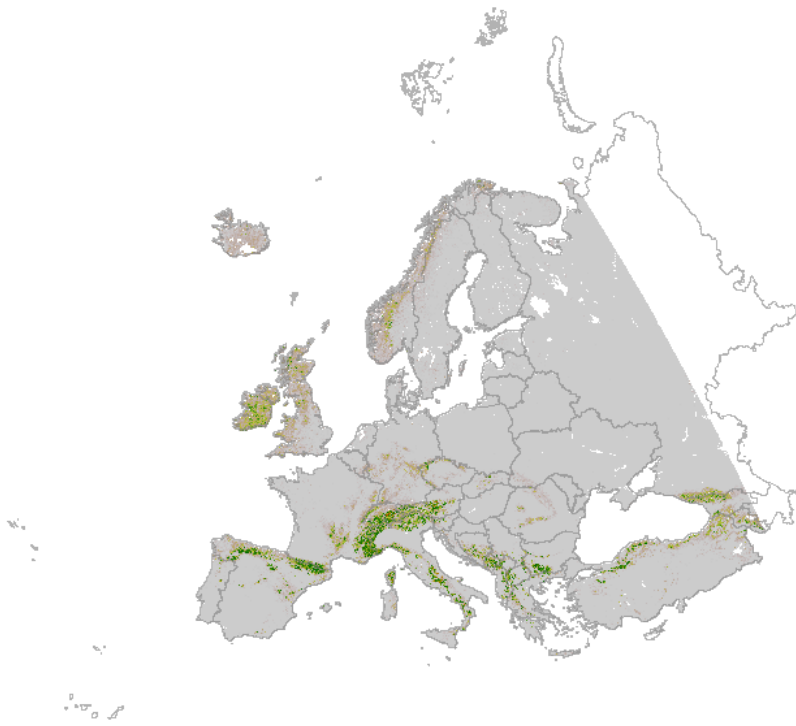
Equate entropy of thresholded and original distributions test omission: 0.15

Equate entropy of thresholded and original distributions binomial probability: 1.02E-15

Metadata

File identifier	91ea19b6-5ece-41b5-9630-9c44897a4017 XML		
Metadata language	English		
Character set	UTF8		
Hierarchy level	Dataset		
Date stamp	2024-04-12T12:18:40.323374Z		
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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