

EUNIS habitat type F3.1b, 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: Poor model, too much affected by the distribution of input data with a high concentration in NL and CZ.

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

Simple

Date (Publication)	2016-07-01				
Date (Creation)	2016-07-06				
Edition	01				
Citation identifier	eea_r_3035_1_km_eunis-hab-f3-1b_p_1940-2011_v01_r00				
Status	Obsolete				
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 heathland terrestrial ecosystem tundra
Keywords	
Keywords	
Place	<ul style="list-style-type: none"> Europe
EEA topics	<ul style="list-style-type: none"> Biodiversity
Use limitation	

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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-f3-1b_p_1940-2011_v01_r00/F3-1b_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/ec9ae900-930e-40ac-bb95-a1f4a6ba2b95	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: 707</p> <p>Regularized training gain: 1.1447</p>
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Unregularized training gain: 1.3054
Iterations: 500
Training AUC: 0.9025
#Test samples: 78
Test gain: 1.0534
Test AUC: 0.8724
AUC Standard Deviation: 0.0133
#Background points: 5707
bio_12_etr2_ras contribution: 0.8323
bio_15_etr2_ras contribution: 2.4142
bio_18_etr2_ras contribution: 16.3224
bio_4_etr2_ras contribution: 45.0235
bio_8_etr2_ras contribution: 4.7928
bld_m_sd1_1km_eu_ll contribution: 0.9704
cecum_m_sd1_1km_eu_ll contribution: 3.1905
clyppt_m_sd1_1km_eu_ll contribution: 0.8803
crvol_m_sd1_1km_eu_ll contribution: 0.4803
dist2water1km contribution: 0.4007
orcdrc_m_sd1_1km_eu_ll contribution: 0.2176
pet_he_yr contribution: 22.8131
phihox_m_sd1_1km_eu_ll contribution: 0.2595
sltppt_m_sd1_1km_eu_ll contribution: 0.2441
sndppt_m_sd1_1km_eu_ll contribution: 0.9949
solar_1km contribution: 0.1634
bio_12_etr2_ras permutation importance: 1.4328
bio_15_etr2_ras permutation importance: 2.0512
bio_18_etr2_ras permutation importance: 17.2995
bio_4_etr2_ras permutation importance: 52.9952
bio_8_etr2_ras permutation importance: 6.0052
bld_m_sd1_1km_eu_ll permutation importance: 2.2594
cecum_m_sd1_1km_eu_ll permutation importance: 0.9127
clyppt_m_sd1_1km_eu_ll permutation importance: 1.2822
crvol_m_sd1_1km_eu_ll permutation importance: 1.3907
dist2water1km permutation importance: 0.2129
orcdrc_m_sd1_1km_eu_ll permutation importance: 0.9402
pet_he_yr permutation importance: 10.3805
phihox_m_sd1_1km_eu_ll permutation importance: 1.1669
sltppt_m_sd1_1km_eu_ll permutation importance: 0.4887
sndppt_m_sd1_1km_eu_ll permutation importance: 0.8649
solar_1km permutation importance: 0.3168
Entropy: 7.5112
Prevalence (average of logistic output over background sites): 0.1561
Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.0363
Fixed cumulative value 1 area: 0.4728
Fixed cumulative value 1 training omission: 0.0057
Fixed cumulative value 1 test omission: 0.0128
Fixed cumulative value 1 binomial probability: 4.51E-20
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.1521
Fixed cumulative value 5 area: 0.3389
Fixed cumulative value 5 training omission: 0.0212
Fixed cumulative value 5 test omission: 0.0513
Fixed cumulative value 5 binomial probability: 2.67E-30
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.2417
Fixed cumulative value 10 area: 0.2728
Fixed cumulative value 10 training omission: 0.0424
Fixed cumulative value 10 test omission: 0.1282
Fixed cumulative value 10 binomial probability: 7.83E-33
Minimum training presence cumulative threshold: 0.4395
Minimum training presence logistic threshold: 0.0132
Minimum training presence area: 0.5513
Minimum training presence training omission: 0
Minimum training presence test omission: 0
Minimum training presence binomial probability: 8.04E-16
10 percentile training presence cumulative threshold: 15.809
10 percentile training presence logistic threshold: 0.3193
10 percentile training presence area: 0.2245
10 percentile training presence training omission: 0.099
10 percentile training presence test omission: 0.1795
10 percentile training presence binomial probability: 8.50E-37
Equal training sensitivity and specificity cumulative threshold: 24.9782
Equal training sensitivity and specificity logistic threshold: 0.4041
Equal training sensitivity and specificity area: 0.1728
Equal training sensitivity and specificity training omission: 0.1726
Equal training sensitivity and specificity test omission: 0.2436
Equal training sensitivity and specificity binomial probability: 1.25E-42
Maximum training sensitivity plus specificity cumulative threshold: 12.3829
Maximum training sensitivity plus specificity logistic threshold: 0.2728
Maximum training sensitivity plus specificity area: 0.2506
Maximum training sensitivity plus specificity training omission: 0.0566
Maximum training sensitivity plus specificity test omission: 0.141
Maximum training sensitivity plus specificity binomial probability: 1.31E-35
Equal test sensitivity and specificity cumulative threshold: 18.8592

Equal test sensitivity and specificity logistic threshold: 0.3501

Equal test sensitivity and specificity area: 0.2052

Equal test sensitivity and specificity training omission: 0.1259

Equal test sensitivity and specificity test omission: 0.2051

Equal test sensitivity and specificity binomial probability: 2.37E-38

Maximum test sensitivity plus specificity cumulative threshold: 7.5121

Maximum test sensitivity plus specificity logistic threshold: 0.2

Maximum test sensitivity plus specificity area: 0.301

Maximum test sensitivity plus specificity training omission: 0.0297

Maximum test sensitivity plus specificity test omission: 0.0641

Maximum test sensitivity plus specificity binomial probability: 1.17E-34

Balance training omission, predicted area and threshold value cumulative threshold: 1.9854

Balance training omission, predicted area and threshold value logistic threshold: 0.0722

Balance training omission, predicted area and threshold value area: 0.4169

Balance training omission, predicted area and threshold value training omission: 0.0071

Balance training omission, predicted area and threshold value test omission: 0.0385

Balance training omission, predicted area and threshold value binomial probability: 8.62E-23

Equate entropy of thresholded and original distributions cumulative threshold: 6.1321

Equate entropy of thresholded and original distributions logistic threshold: 0.1747

Equate entropy of thresholded and original distributions area: 0.3203

Equate entropy of thresholded and original distributions training omission: 0.0255

Equate entropy of thresholded and original distributions test omission: 0.0641

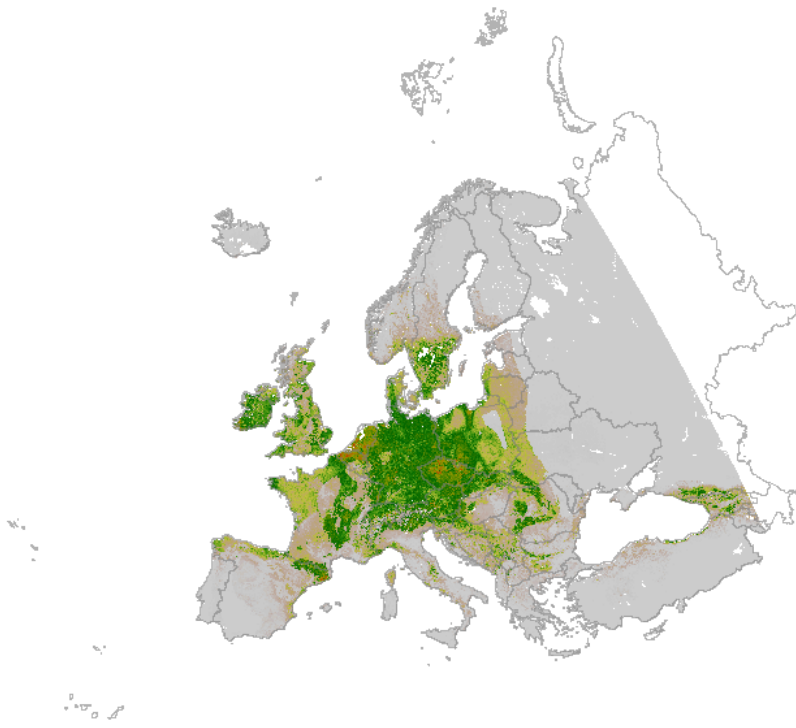
Equate entropy of thresholded and original distributions binomial probability: 1.12E-31

Source	•
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Metadata

File identifier	ec9ae900-930e-40ac-bb95-a1f4a6ba2b95 XML								
Metadata language	English								
Character set	UTF8								
Hierarchy level	Dataset								
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Metadata standard name	ISO 19115/19139								
Metadata standard version	1.0								
Metadata author	<table border="0"> <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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