

EUNIS habitat type F3.1a, 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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Date (Creation)	2016-07-06		
Edition	01		
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Point of contact	Organisation name	Individual name	Electronic mail address Website Role
	European Environment Agency		sdi@eea.europa.eu http://www.eea.europa.eu Point of contact
	European Environment Agency		sdi@eea.europa.eu Custodian

Point of contact

No information provided.

Maintenance and update frequency	Unknown
EEA topics	<ul style="list-style-type: none"> Biodiversity
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
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-f3-1a_p_1940-2011_v01_r00/F3-1a_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/cb23d43e-5495-4ab9-861e-1c2d13db33e2	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: 261</p> <p>Regularized training gain: 1.451</p>
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Unregularized training gain: 1.6818

Iterations: 500

Training AUC: 0.9294

#Test samples: 28

Test gain: 1.6294

Test AUC: 0.9168

AUC Standard Deviation: 0.0248

#Background points: 5261

bio_12_etr2_ras contribution: 16.9278

bio_15_etr2_ras contribution: 1.7383

bio_18_etr2_ras contribution: 3.0896

bio_4_etr2_ras contribution: 47.2878

bio_8_etr2_ras contribution: 1.1727

bld_m_sd1_1km_eu_ll contribution: 2.8954

cecum_m_sd1_1km_eu_ll contribution: 0.1047

clyppt_m_sd1_1km_eu_ll contribution: 0.2259

crvol_m_sd1_1km_eu_ll contribution: 4.1454

dist2water1km contribution: 0.0476

orcdrc_m_sd1_1km_eu_ll contribution: 0.8552

pet_he_yr contribution: 11.6802

phihox_m_sd1_1km_eu_ll contribution: 0.3306

sltppt_m_sd1_1km_eu_ll contribution: 0.4748

sndppt_m_sd1_1km_eu_ll contribution: 2.8708

solar_1km contribution: 6.1532

bio_12_etr2_ras permutation importance: 11.098

bio_15_etr2_ras permutation importance: 1.4671

bio_18_etr2_ras permutation importance: 3.3948

bio_4_etr2_ras permutation importance: 39.0025

bio_8_etr2_ras permutation importance: 0.9225

bld_m_sd1_1km_eu_ll permutation importance: 2.9407

cecum_m_sd1_1km_eu_ll permutation importance: 0.3514

clyppt_m_sd1_1km_eu_ll permutation importance: 1.0385

crvol_m_sd1_1km_eu_ll permutation importance: 13.2838

dist2water1km permutation importance: 0.3511

orcdrc_m_sd1_1km_eu_ll permutation importance: 2.4478

pet_he_yr permutation importance: 15.1798

phihox_m_sd1_1km_eu_ll permutation importance: 2.9375

sltppt_m_sd1_1km_eu_ll permutation importance: 2.438

sndppt_m_sd1_1km_eu_ll permutation importance: 0.9287

solar_1km permutation importance: 2.2179

Entropy: 7.1344

Prevalence (average of logistic output over background sites): 0.1155

Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.0186
Fixed cumulative value 1 area: 0.5052
Fixed cumulative value 1 training omission: 0.0115
Fixed cumulative value 1 test omission: 0.0357
Fixed cumulative value 1 binomial probability: 5.91E-07
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.0954
Fixed cumulative value 5 area: 0.3203
Fixed cumulative value 5 training omission: 0.0307
Fixed cumulative value 5 test omission: 0.0357
Fixed cumulative value 5 binomial probability: 1.40E-13
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.1694
Fixed cumulative value 10 area: 0.2387
Fixed cumulative value 10 training omission: 0.0651
Fixed cumulative value 10 test omission: 0.1071
Fixed cumulative value 10 binomial probability: 2.35E-16
Minimum training presence cumulative threshold: 0.5143
Minimum training presence logistic threshold: 0.0103
Minimum training presence area: 0.587
Minimum training presence training omission: 0
Minimum training presence test omission: 0.0357
Minimum training presence binomial probability: 2.51E-05
10 percentile training presence cumulative threshold: 18.2675
10 percentile training presence logistic threshold: 0.2609
10 percentile training presence area: 0.1671
10 percentile training presence training omission: 0.0996
10 percentile training presence test omission: 0.1786
10 percentile training presence binomial probability: 8.34E-21
Equal training sensitivity and specificity cumulative threshold: 22.3303
Equal training sensitivity and specificity logistic threshold: 0.3025
Equal training sensitivity and specificity area: 0.1426
Equal training sensitivity and specificity training omission: 0.1418
Equal training sensitivity and specificity test omission: 0.2143
Equal training sensitivity and specificity binomial probability: 1.08E-22
Maximum training sensitivity plus specificity cumulative threshold: 18.2675
Maximum training sensitivity plus specificity logistic threshold: 0.2609
Maximum training sensitivity plus specificity area: 0.1671
Maximum training sensitivity plus specificity training omission: 0.0996
Maximum training sensitivity plus specificity test omission: 0.1786
Maximum training sensitivity plus specificity binomial probability: 8.34E-21
Equal test sensitivity and specificity cumulative threshold: 16.6662

Equal test sensitivity and specificity logistic threshold: 0.2475

Equal test sensitivity and specificity area: 0.1785

Equal test sensitivity and specificity training omission: 0.0958

Equal test sensitivity and specificity test omission: 0.1786

Equal test sensitivity and specificity binomial probability: 3.20E-19

Maximum test sensitivity plus specificity cumulative threshold: 36.3306

Maximum test sensitivity plus specificity logistic threshold: 0.4278

Maximum test sensitivity plus specificity area: 0.0842

Maximum test sensitivity plus specificity training omission: 0.2759

Maximum test sensitivity plus specificity test omission: 0.2143

Maximum test sensitivity plus specificity binomial probability: 4.69E-41

Balance training omission, predicted area and threshold value cumulative threshold: 3.5127

Balance training omission, predicted area and threshold value logistic threshold: 0.072

Balance training omission, predicted area and threshold value area: 0.3592

Balance training omission, predicted area and threshold value training omission: 0.0192

Balance training omission, predicted area and threshold value test omission: 0.0357

Balance training omission, predicted area and threshold value binomial probability: 1.25E-11

Equate entropy of thresholded and original distributions cumulative threshold: 10.0342

Equate entropy of thresholded and original distributions logistic threshold: 0.1695

Equate entropy of thresholded and original distributions area: 0.2384

Equate entropy of thresholded and original distributions training omission: 0.0651

Equate entropy of thresholded and original distributions test omission: 0.1071

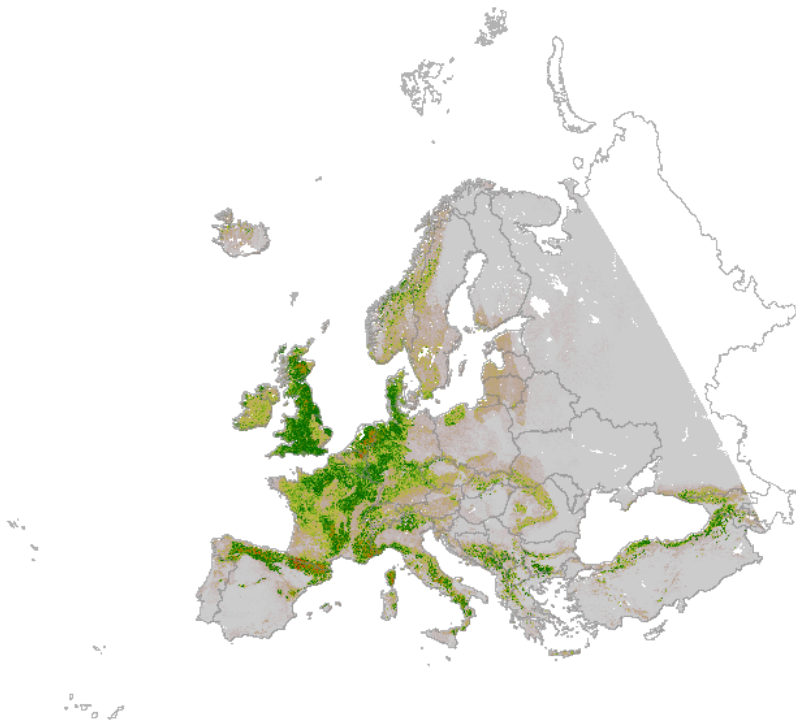
Equate entropy of thresholded and original distributions binomial probability: 2.18E-16

Source	•
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Metadata

File identifier	cb23d43e-5495-4ab9-861e-1c2d13db33e2 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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