

EUNIS habitat type F3.1g, 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 uncertain due to lack of data for that area.

Simple

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Edition	01			
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	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-f3-1g_p_1940-2011_v01_r00/F3-1g_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/8638744c-5d3a-4c71-9dab-f4cf49e5908b	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: 477</p> <p>Regularized training gain: 1.336</p>
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Unregularized training gain: 1.5094

Iterations: 500

Training AUC: 0.9214

#Test samples: 53

Test gain: 1.4334

Test AUC: 0.9127

AUC Standard Deviation: 0.0117

#Background points: 5476

bio_12_etr2_ras contribution: 21.3753

bio_15_etr2_ras contribution: 1.4767

bio_18_etr2_ras contribution: 3.8228

bio_4_etr2_ras contribution: 38.4785

bio_8_etr2_ras contribution: 0.5229

bld_m_sd1_1km_eu_ll contribution: 6.9894

cecsum_m_sd1_1km_eu_ll contribution: 1.5709

clyppt_m_sd1_1km_eu_ll contribution: 6.0154

crvol_m_sd1_1km_eu_ll contribution: 4.1324

dist2water1km contribution: 0.3184

orcdrc_m_sd1_1km_eu_ll contribution: 0.9897

pet_he_yr contribution: 13.4663

phihox_m_sd1_1km_eu_ll contribution: 0.2333

sltppt_m_sd1_1km_eu_ll contribution: 0.1342

sndppt_m_sd1_1km_eu_ll contribution: 0.4396

solar_1km contribution: 0.0344

bio_12_etr2_ras permutation importance: 2.1368

bio_15_etr2_ras permutation importance: 5.4331

bio_18_etr2_ras permutation importance: 6.7422

bio_4_etr2_ras permutation importance: 44.9368

bio_8_etr2_ras permutation importance: 1.7816

bld_m_sd1_1km_eu_ll permutation importance: 4.1575

cecsum_m_sd1_1km_eu_ll permutation importance: 5.7108

clyppt_m_sd1_1km_eu_ll permutation importance: 1.9402

crvol_m_sd1_1km_eu_ll permutation importance: 7.6498

dist2water1km permutation importance: 0.3067

orcdrc_m_sd1_1km_eu_ll permutation importance: 0.9113

pet_he_yr permutation importance: 15.4077

phihox_m_sd1_1km_eu_ll permutation importance: 1.0707

sltppt_m_sd1_1km_eu_ll permutation importance: 0.7499

sndppt_m_sd1_1km_eu_ll permutation importance: 0.9865

solar_1km permutation importance: 0.0784

Entropy: 7.2766

Prevalence (average of logistic output over background sites): 0.1284

Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.0252
Fixed cumulative value 1 area: 0.4246
Fixed cumulative value 1 training omission: 0.0021
Fixed cumulative value 1 test omission: 0
Fixed cumulative value 1 binomial probability: 1.17E-17
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.1414
Fixed cumulative value 5 area: 0.2812
Fixed cumulative value 5 training omission: 0.0189
Fixed cumulative value 5 test omission: 0.0377
Fixed cumulative value 5 binomial probability: 1.41E-28
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.2437
Fixed cumulative value 10 area: 0.2255
Fixed cumulative value 10 training omission: 0.0503
Fixed cumulative value 10 test omission: 0.0755
Fixed cumulative value 10 binomial probability: 2.08E-34
Minimum training presence cumulative threshold: 0.9217
Minimum training presence logistic threshold: 0.0234
Minimum training presence area: 0.433
Minimum training presence training omission: 0
Minimum training presence test omission: 0
Minimum training presence binomial probability: 4.00E-17
10 percentile training presence cumulative threshold: 18.1671
10 percentile training presence logistic threshold: 0.3403
10 percentile training presence area: 0.174
10 percentile training presence training omission: 0.0985
10 percentile training presence test omission: 0.1509
10 percentile training presence binomial probability: 1.01E-38
Equal training sensitivity and specificity cumulative threshold: 23.2055
Equal training sensitivity and specificity logistic threshold: 0.3783
Equal training sensitivity and specificity area: 0.1503
Equal training sensitivity and specificity training omission: 0.1509
Equal training sensitivity and specificity test omission: 0.2075
Equal training sensitivity and specificity binomial probability: 2.08E-39
Maximum training sensitivity plus specificity cumulative threshold: 15.887
Maximum training sensitivity plus specificity logistic threshold: 0.32
Maximum training sensitivity plus specificity area: 0.1863
Maximum training sensitivity plus specificity training omission: 0.0797
Maximum training sensitivity plus specificity test omission: 0.1321
Maximum training sensitivity plus specificity binomial probability: 1.63E-37
Equal test sensitivity and specificity cumulative threshold: 19.0346

Equal test sensitivity and specificity logistic threshold: 0.3465

Equal test sensitivity and specificity area: 0.1698

Equal test sensitivity and specificity training omission: 0.1111

Equal test sensitivity and specificity test omission: 0.1698

Equal test sensitivity and specificity binomial probability: 7.85E-38

Maximum test sensitivity plus specificity cumulative threshold: 14.968

Maximum test sensitivity plus specificity logistic threshold: 0.3093

Maximum test sensitivity plus specificity area: 0.1916

Maximum test sensitivity plus specificity training omission: 0.0797

Maximum test sensitivity plus specificity test omission: 0.0943

Maximum test sensitivity plus specificity binomial probability: 3.82E-40

Balance training omission, predicted area and threshold value cumulative threshold: 2.5523

Balance training omission, predicted area and threshold value logistic threshold: 0.074

Balance training omission, predicted area and threshold value area: 0.3358

Balance training omission, predicted area and threshold value training omission: 0.0063

Balance training omission, predicted area and threshold value test omission: 0.0189

Balance training omission, predicted area and threshold value binomial probability: 1.30E-23

Equate entropy of thresholded and original distributions cumulative threshold: 6.1855

Equate entropy of thresholded and original distributions logistic threshold: 0.169

Equate entropy of thresholded and original distributions area: 0.2641

Equate entropy of thresholded and original distributions training omission: 0.0294

Equate entropy of thresholded and original distributions test omission: 0.0566

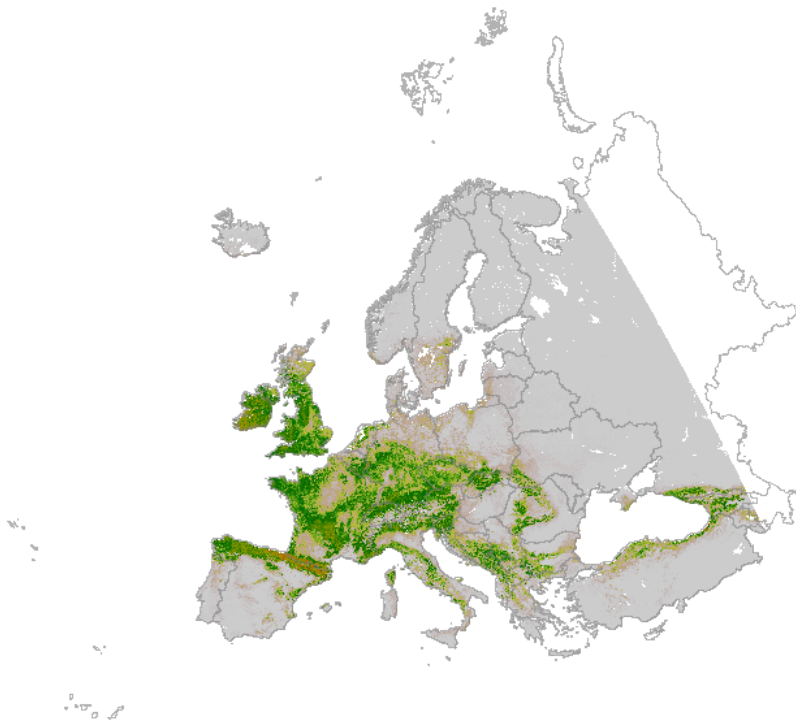
Equate entropy of thresholded and original distributions binomial probability: 1.65E-29

Source	•
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Metadata

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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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