

EUNIS habitat type F4.1, 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: -

Simple

Date (Publication)	2016-07-01			
Date (Creation)	2016-07-06			
Edition	01			
Citation identifier	eea_r_3035_1_km_eunis-hab-f4-1_p_1940-2011_v01_r00			
Status	Obsolete			
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
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

	N		S		E		W
--	---	--	---	--	---	--	---



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-f4-1_p_1940-2011_v01_r00/F4-1_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/20c0d49f-4ef6-43d7-8829-d0b1b1657497	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: 881</p> <p>Regularized training gain: 1.4152</p>
------------------	--

Unregularized training gain: 1.4859
Iterations: 500
Training AUC: 0.9118
#Test samples: 97
Test gain: 1.559
Test AUC: 0.9158
AUC Standard Deviation: 0.0062
#Background points: 5880
bio_12_etr2_ras contribution: 0.1603
bio_15_etr2_ras contribution: 0.6302
bio_18_etr2_ras contribution: 0.3854
bio_4_etr2_ras contribution: 74.6549
bio_8_etr2_ras contribution: 0.3431
bld_m_sd1_1km_eu_ll contribution: 4.9738
cecum_m_sd1_1km_eu_ll contribution: 0.0011
clyppt_m_sd1_1km_eu_ll contribution: 0.6261
crvol_m_sd1_1km_eu_ll contribution: 0.001
dist2water1km contribution: 0.0314
orcdrc_m_sd1_1km_eu_ll contribution: 0.071
pet_he_yr contribution: 5.217
phihox_m_sd1_1km_eu_ll contribution: 6.5263
sltppt_m_sd1_1km_eu_ll contribution: 4.9587
sndppt_m_sd1_1km_eu_ll contribution: 1.1275
solar_1km contribution: 0.2921
bio_12_etr2_ras permutation importance: 0.5099
bio_15_etr2_ras permutation importance: 2.3547
bio_18_etr2_ras permutation importance: 1.37
bio_4_etr2_ras permutation importance: 76.617
bio_8_etr2_ras permutation importance: 0.3155
bld_m_sd1_1km_eu_ll permutation importance: 3.1889
cecum_m_sd1_1km_eu_ll permutation importance: 0.0214
clyppt_m_sd1_1km_eu_ll permutation importance: 2.8413
crvol_m_sd1_1km_eu_ll permutation importance: 0.0048
dist2water1km permutation importance: 0.1075
orcdrc_m_sd1_1km_eu_ll permutation importance: 0.1084
pet_he_yr permutation importance: 8.2662
phihox_m_sd1_1km_eu_ll permutation importance: 3.1318
sltppt_m_sd1_1km_eu_ll permutation importance: 0.6201
sndppt_m_sd1_1km_eu_ll permutation importance: 0.1568
solar_1km permutation importance: 0.3858
Entropy: 7.2663
Prevalence (average of logistic output over background sites): 0.1182
Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.033
Fixed cumulative value 1 area: 0.3383
Fixed cumulative value 1 training omission: 0.0023
Fixed cumulative value 1 test omission: 0
Fixed cumulative value 1 binomial probability: 1.80E-43
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.163
Fixed cumulative value 5 area: 0.2308
Fixed cumulative value 5 training omission: 0.0295
Fixed cumulative value 5 test omission: 0.0103
Fixed cumulative value 5 binomial probability: 0.00E+00
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.2964
Fixed cumulative value 10 area: 0.1889
Fixed cumulative value 10 training omission: 0.0783
Fixed cumulative value 10 test omission: 0.0309
Fixed cumulative value 10 binomial probability: 0.00E+00
Minimum training presence cumulative threshold: 0.0614
Minimum training presence logistic threshold: 0.0014
Minimum training presence area: 0.5969
Minimum training presence training omission: 0
Minimum training presence test omission: 0
Minimum training presence binomial probability: 2.91E-16
10 percentile training presence cumulative threshold: 12.8354
10 percentile training presence logistic threshold: 0.3453
10 percentile training presence area: 0.1743
10 percentile training presence training omission: 0.0999
10 percentile training presence test omission: 0.0412
10 percentile training presence binomial probability: 0.00E+00
Equal training sensitivity and specificity cumulative threshold: 18.1245
Equal training sensitivity and specificity logistic threshold: 0.4071
Equal training sensitivity and specificity area: 0.1529
Equal training sensitivity and specificity training omission: 0.1532
Equal training sensitivity and specificity test omission: 0.0825
Equal training sensitivity and specificity binomial probability: 0.00E+00
Maximum training sensitivity plus specificity cumulative threshold: 6.2191
Maximum training sensitivity plus specificity logistic threshold: 0.1969
Maximum training sensitivity plus specificity area: 0.2173
Maximum training sensitivity plus specificity training omission: 0.0386
Maximum training sensitivity plus specificity test omission: 0.0206
Maximum training sensitivity plus specificity binomial probability: 0.00E+00
Equal test sensitivity and specificity cumulative threshold: 24.5862

Equal test sensitivity and specificity logistic threshold: 0.4655

Equal test sensitivity and specificity area: 0.1327

Equal test sensitivity and specificity training omission: 0.2032

Equal test sensitivity and specificity test omission: 0.134

Equal test sensitivity and specificity binomial probability: 0.00E+00

Maximum test sensitivity plus specificity cumulative threshold: 13.6499

Maximum test sensitivity plus specificity logistic threshold: 0.3537

Maximum test sensitivity plus specificity area: 0.1707

Maximum test sensitivity plus specificity training omission: 0.1078

Maximum test sensitivity plus specificity test omission: 0.0412

Maximum test sensitivity plus specificity binomial probability: 0.00E+00

Balance training omission, predicted area and threshold value cumulative threshold: 2.4267

Balance training omission, predicted area and threshold value logistic threshold: 0.0819

Balance training omission, predicted area and threshold value area: 0.2786

Balance training omission, predicted area and threshold value training omission: 0.0034

Balance training omission, predicted area and threshold value test omission: 0.0103

Balance training omission, predicted area and threshold value binomial probability: 2.54E-55

Equate entropy of thresholded and original distributions cumulative threshold: 4.1097

Equate entropy of thresholded and original distributions logistic threshold: 0.1307

Equate entropy of thresholded and original distributions area: 0.2434

Equate entropy of thresholded and original distributions training omission: 0.0216

Equate entropy of thresholded and original distributions test omission: 0.0103

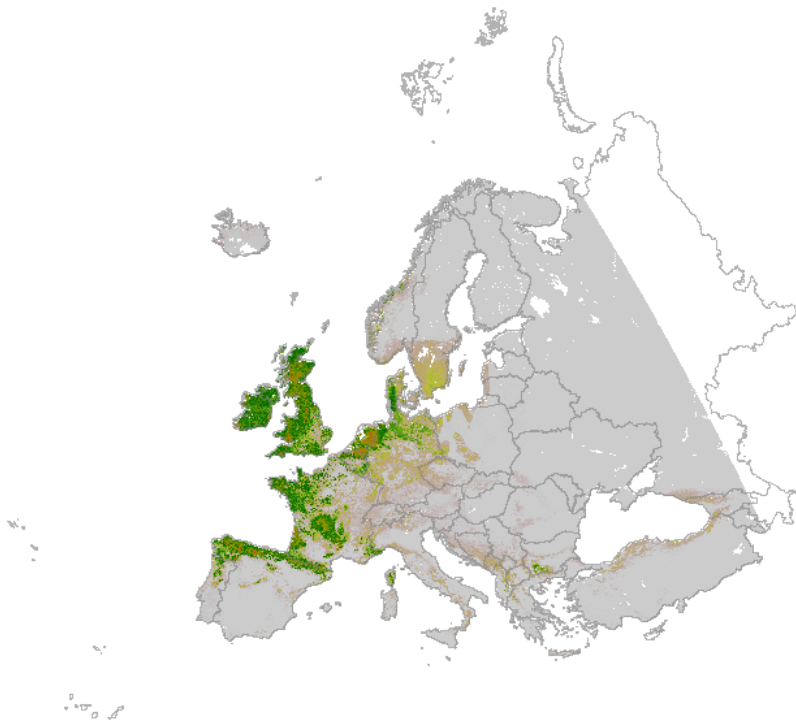
Equate entropy of thresholded and original distributions binomial probability: 0.00E+00

Source	•
---------------	---

Metadata

File identifier	20c0d49f-4ef6-43d7-8829-d0b1b1657497 XML		
Metadata language	English		
Character set	UTF8		
Hierarchy level	Dataset		
Date stamp	2022-01-31T13:46:49.838Z		
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



Provided by

