

EUNIS habitat type F3.1h, 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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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"> tundra heathland natural area terrestrial ecosystem
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-f3-1h_p_1940-2011_v01_r00/F3-1h_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/01545f45-7cf4-40c5-ba35-e4c6a6b88e1c	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: 145</p> <p>Regularized training gain: 1.7141</p>
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Unregularized training gain: 2.1221
Iterations: 500
Training AUC: 0.9574
#Test samples: 16
Test gain: 1.5508
Test AUC: 0.9256
AUC Standard Deviation: 0.0169
#Background points: 5145
bio_12_etr2_ras contribution: 0.7647
bio_15_etr2_ras contribution: 0.954
bio_18_etr2_ras contribution: 6.175
bio_4_etr2_ras contribution: 42.3336
bio_8_etr2_ras contribution: 0.1205
bld_m_sd1_1km_eu_ll contribution: 1.0246
cecum_m_sd1_1km_eu_ll contribution: 0.4204
clyppt_m_sd1_1km_eu_ll contribution: 2.7162
crvol_m_sd1_1km_eu_ll contribution: 5.506
dist2water1km contribution: 0.0265
orcdrc_m_sd1_1km_eu_ll contribution: 1.1925
pet_he_yr contribution: 25.6775
phihox_m_sd1_1km_eu_ll contribution: 6.1546
sltppt_m_sd1_1km_eu_ll contribution: 0.6205
sndppt_m_sd1_1km_eu_ll contribution: 5.051
solar_1km contribution: 1.2624
bio_12_etr2_ras permutation importance: 1.1384
bio_15_etr2_ras permutation importance: 1.9366
bio_18_etr2_ras permutation importance: 9.0721
bio_4_etr2_ras permutation importance: 47.0905
bio_8_etr2_ras permutation importance: 0.0504
bld_m_sd1_1km_eu_ll permutation importance: 0.4373
cecum_m_sd1_1km_eu_ll permutation importance: 0.7225
clyppt_m_sd1_1km_eu_ll permutation importance: 2.9661
crvol_m_sd1_1km_eu_ll permutation importance: 7.8961
dist2water1km permutation importance: 0.1674
orcdrc_m_sd1_1km_eu_ll permutation importance: 2.5233
pet_he_yr permutation importance: 20.9237
phihox_m_sd1_1km_eu_ll permutation importance: 1.2589
sltppt_m_sd1_1km_eu_ll permutation importance: 0.629
sndppt_m_sd1_1km_eu_ll permutation importance: 2.6279
solar_1km permutation importance: 0.5598
Entropy: 6.8718
Prevalence (average of logistic output over background sites): 0.0904
Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.0132
Fixed cumulative value 1 area: 0.4795
Fixed cumulative value 1 training omission: 0
Fixed cumulative value 1 test omission: 0
Fixed cumulative value 1 binomial probability: 7.81E-06
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.0799
Fixed cumulative value 5 area: 0.2599
Fixed cumulative value 5 training omission: 0.0069
Fixed cumulative value 5 test omission: 0
Fixed cumulative value 5 binomial probability: 4.32E-10
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.1562
Fixed cumulative value 10 area: 0.1885
Fixed cumulative value 10 training omission: 0.0414
Fixed cumulative value 10 test omission: 0.0625
Fixed cumulative value 10 binomial probability: 1.78E-10
Minimum training presence cumulative threshold: 2.3434
Minimum training presence logistic threshold: 0.0294
Minimum training presence area: 0.3549
Minimum training presence training omission: 0
Minimum training presence test omission: 0
Minimum training presence binomial probability: 6.34E-08
10 percentile training presence cumulative threshold: 22.6075
10 percentile training presence logistic threshold: 0.3087
10 percentile training presence area: 0.1094
10 percentile training presence training omission: 0.0966
10 percentile training presence test omission: 0.3125
10 percentile training presence binomial probability: 6.94E-08
Equal training sensitivity and specificity cumulative threshold: 24.1214
Equal training sensitivity and specificity logistic threshold: 0.329
Equal training sensitivity and specificity area: 0.1034
Equal training sensitivity and specificity training omission: 0.1034
Equal training sensitivity and specificity test omission: 0.3125
Equal training sensitivity and specificity binomial probability: 3.84E-08
Maximum training sensitivity plus specificity cumulative threshold: 20.1201
Maximum training sensitivity plus specificity logistic threshold: 0.2859
Maximum training sensitivity plus specificity area: 0.1205
Maximum training sensitivity plus specificity training omission: 0.069
Maximum training sensitivity plus specificity test omission: 0.25
Maximum training sensitivity plus specificity binomial probability: 1.06E-08
Equal test sensitivity and specificity cumulative threshold: 16.0628

Equal test sensitivity and specificity logistic threshold: 0.2389

Equal test sensitivity and specificity area: 0.1415

Equal test sensitivity and specificity training omission: 0.0621

Equal test sensitivity and specificity test omission: 0.125

Equal test sensitivity and specificity binomial probability: 1.17E-10

Maximum test sensitivity plus specificity cumulative threshold: 14.7971

Maximum test sensitivity plus specificity logistic threshold: 0.2194

Maximum test sensitivity plus specificity area: 0.1495

Maximum test sensitivity plus specificity training omission: 0.0621

Maximum test sensitivity plus specificity test omission: 0.0625

Maximum test sensitivity plus specificity binomial probability: 5.71E-12

Balance training omission, predicted area and threshold value cumulative threshold: 4.4862

Balance training omission, predicted area and threshold value logistic threshold: 0.0696

Balance training omission, predicted area and threshold value area: 0.2719

Balance training omission, predicted area and threshold value training omission: 0.0069

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

Balance training omission, predicted area and threshold value binomial probability: 8.93E-10

Equate entropy of thresholded and original distributions cumulative threshold: 10.1319

Equate entropy of thresholded and original distributions logistic threshold: 0.157

Equate entropy of thresholded and original distributions area: 0.1874

Equate entropy of thresholded and original distributions training omission: 0.0414

Equate entropy of thresholded and original distributions test omission: 0.0625

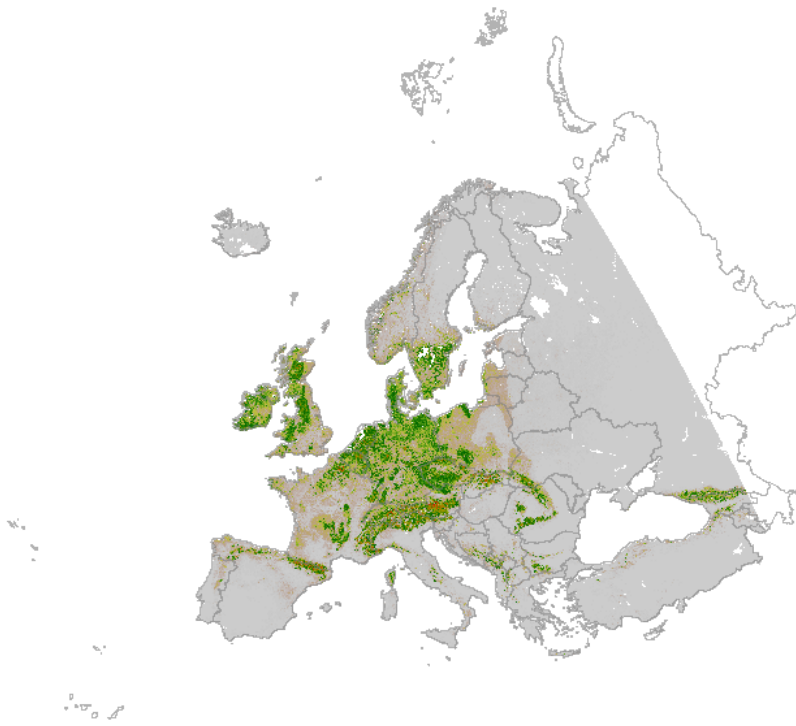
Equate entropy of thresholded and original distributions binomial probability: 1.62E-10

Source	•
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Metadata

File identifier	01545f45-7cf4-40c5-ba35-e4cba6b88e1c XML		
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Character set	UTF8		
Hierarchy level	Dataset		
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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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