

EUNIS habitat type F7.4c, 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 the Iberian Peninsula should be ignored.

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

Simple

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Point of contact	Organisation name	Individual name	Electronic mail address	Website	Role
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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	

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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-f7-4c_p_1940-2011_v01_r00/F7-4c_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/417765e1-90e1-4e17-87d3-de4f55985410	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: 57</p> <p>Regularized training gain: 3.4576</p>
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Unregularized training gain: 3.7394
Iterations: 500
Training AUC: 0.991
#Test samples: 6
Test gain: 2.5065
Test AUC: 0.9575
AUC Standard Deviation: 0.0254
#Background points: 5057
bio_12_etr2_ras contribution: 15.5779
bio_15_etr2_ras contribution: 6.2742
bio_18_etr2_ras contribution: 8.5922
bio_4_etr2_ras contribution: 1.0485
bio_8_etr2_ras contribution: 23.2442
bld_m_sd1_1km_eu_ll contribution: 2.1347
cecum_m_sd1_1km_eu_ll contribution: 0.3437
clyppt_m_sd1_1km_eu_ll contribution: 0.6099
crvol_m_sd1_1km_eu_ll contribution: 18.8631
dist2water1km contribution: 0.3099
orcdrc_m_sd1_1km_eu_ll contribution: 0.0204
pet_he_yr contribution: 7.5398
phihox_m_sd1_1km_eu_ll contribution: 7.4881
sltppt_m_sd1_1km_eu_ll contribution: 0.0592
sndppt_m_sd1_1km_eu_ll contribution: 0.2446
solar_1km contribution: 7.6495
bio_12_etr2_ras permutation importance: 2.1758
bio_15_etr2_ras permutation importance: 0
bio_18_etr2_ras permutation importance: 66.4663
bio_4_etr2_ras permutation importance: 13.2252
bio_8_etr2_ras permutation importance: 0.237
bld_m_sd1_1km_eu_ll permutation importance: 10.0411
cecum_m_sd1_1km_eu_ll permutation importance: 0.2801
clyppt_m_sd1_1km_eu_ll permutation importance: 0
crvol_m_sd1_1km_eu_ll permutation importance: 0
dist2water1km permutation importance: 0.1659
orcdrc_m_sd1_1km_eu_ll permutation importance: 0
pet_he_yr permutation importance: 0
phihox_m_sd1_1km_eu_ll permutation importance: 5.054
sltppt_m_sd1_1km_eu_ll permutation importance: 0.3361
sndppt_m_sd1_1km_eu_ll permutation importance: 1.7299
solar_1km permutation importance: 0.2887
Entropy: 5.078
Prevalence (average of logistic output over background sites): 0.0143
Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.0035
Fixed cumulative value 1 area: 0.1975
Fixed cumulative value 1 training omission: 0
Fixed cumulative value 1 test omission: 0
Fixed cumulative value 1 binomial probability: 5.94E-05
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.0253
Fixed cumulative value 5 area: 0.0722
Fixed cumulative value 5 training omission: 0
Fixed cumulative value 5 test omission: 0.1667
Fixed cumulative value 5 binomial probability: 1.10E-05
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.0709
Fixed cumulative value 10 area: 0.036
Fixed cumulative value 10 training omission: 0.0526
Fixed cumulative value 10 test omission: 0.3333
Fixed cumulative value 10 binomial probability: 2.37E-05
Minimum training presence cumulative threshold: 6.2631
Minimum training presence logistic threshold: 0.0343
Minimum training presence area: 0.0589
Minimum training presence training omission: 0
Minimum training presence test omission: 0.3333
Minimum training presence binomial probability: 1.64E-04
10 percentile training presence cumulative threshold: 22.7522
10 percentile training presence logistic threshold: 0.3409
10 percentile training presence area: 0.0134
10 percentile training presence training omission: 0.0877
10 percentile training presence test omission: 0.3333
10 percentile training presence binomial probability: 4.80E-07
Equal training sensitivity and specificity cumulative threshold: 9.0807
Equal training sensitivity and specificity logistic threshold: 0.0592
Equal training sensitivity and specificity area: 0.0403
Equal training sensitivity and specificity training omission: 0.0351
Equal training sensitivity and specificity test omission: 0.3333
Equal training sensitivity and specificity binomial probability: 3.72E-05
Maximum training sensitivity plus specificity cumulative threshold: 6.2631
Maximum training sensitivity plus specificity logistic threshold: 0.0343
Maximum training sensitivity plus specificity area: 0.0589
Maximum training sensitivity plus specificity training omission: 0
Maximum training sensitivity plus specificity test omission: 0.3333
Maximum training sensitivity plus specificity binomial probability: 1.64E-04
Equal test sensitivity and specificity cumulative threshold: 1.4239

Equal test sensitivity and specificity logistic threshold: 0.0053

Equal test sensitivity and specificity area: 0.1667

Equal test sensitivity and specificity training omission: 0

Equal test sensitivity and specificity test omission: 0.1667

Equal test sensitivity and specificity binomial probability: 6.65E-04

Maximum test sensitivity plus specificity cumulative threshold: 1.3132

Maximum test sensitivity plus specificity logistic threshold: 0.0048

Maximum test sensitivity plus specificity area: 0.1734

Maximum test sensitivity plus specificity training omission: 0

Maximum test sensitivity plus specificity test omission: 0

Maximum test sensitivity plus specificity binomial probability: 2.72E-05

Balance training omission, predicted area and threshold value cumulative threshold: 2.8771

Balance training omission, predicted area and threshold value logistic threshold: 0.0125

Balance training omission, predicted area and threshold value area: 0.1105

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

Balance training omission, predicted area and threshold value test omission: 0.1667

Balance training omission, predicted area and threshold value binomial probability: 8.99E-05

Equate entropy of thresholded and original distributions cumulative threshold: 11.2492

Equate entropy of thresholded and original distributions logistic threshold: 0.0883

Equate entropy of thresholded and original distributions area: 0.0316

Equate entropy of thresholded and original distributions training omission: 0.0702

Equate entropy of thresholded and original distributions test omission: 0.3333

Equate entropy of thresholded and original distributions binomial probability: 1.43E-05

Source	•
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Metadata

File identifier	417765e1-90e1-4e17-87d3-de4f55985410 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	Organisation name	Individual name	Electronic mail address Website Role
	European Environment Agency		sdi@eea.europa.eu Point of contact

Overviews



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