

EUNIS habitat type F9.1b, 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

Date (Publication)	2016-07-01		
Date (Creation)	2016-07-06		
Edition	01		
Citation identifier	eea_r_3035_1_km_eunis-hab-f9-1b_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
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

	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-f9-1b_p_1940-2011_v01_r00/F9-1b_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/0394dfb5-d2a3-4025-ba26-af6cf5ea8b9c	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: 484</p> <p>Regularized training gain: 1.4009</p>
------------------	--

Unregularized training gain: 1.5753
Iterations: 500
Training AUC: 0.9273
#Test samples: 53
Test gain: 1.6385
Test AUC: 0.9289
AUC Standard Deviation: 0.012
#Background points: 5484
bio_12_etr2_ras contribution: 0.8483
bio_15_etr2_ras contribution: 0.336
bio_18_etr2_ras contribution: 18.0478
bio_4_etr2_ras contribution: 35.7082
bio_8_etr2_ras contribution: 0.4779
bld_m_sd1_1km_eu_ll contribution: 12.7256
cecum_m_sd1_1km_eu_ll contribution: 0.3013
clyppt_m_sd1_1km_eu_ll contribution: 0.1545
crvol_m_sd1_1km_eu_ll contribution: 0.3478
dist2water1km contribution: 16.3982
orcdrc_m_sd1_1km_eu_ll contribution: 0
pet_he_yr contribution: 4.7908
phihox_m_sd1_1km_eu_ll contribution: 2.9534
sltppt_m_sd1_1km_eu_ll contribution: 1.3926
sndppt_m_sd1_1km_eu_ll contribution: 0.6835
solar_1km contribution: 4.8341
bio_12_etr2_ras permutation importance: 0.0724
bio_15_etr2_ras permutation importance: 0.593
bio_18_etr2_ras permutation importance: 24.5289
bio_4_etr2_ras permutation importance: 41.2521
bio_8_etr2_ras permutation importance: 0.9112
bld_m_sd1_1km_eu_ll permutation importance: 8.3914
cecum_m_sd1_1km_eu_ll permutation importance: 0.249
clyppt_m_sd1_1km_eu_ll permutation importance: 1.5177
crvol_m_sd1_1km_eu_ll permutation importance: 0.7012
dist2water1km permutation importance: 4.949
orcdrc_m_sd1_1km_eu_ll permutation importance: 0
pet_he_yr permutation importance: 5.7634
phihox_m_sd1_1km_eu_ll permutation importance: 3.5251
sltppt_m_sd1_1km_eu_ll permutation importance: 0.378
sndppt_m_sd1_1km_eu_ll permutation importance: 3.2679
solar_1km permutation importance: 3.8996
Entropy: 7.2118
Prevalence (average of logistic output over background sites): 0.1205
Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.0323
Fixed cumulative value 1 area: 0.4004
Fixed cumulative value 1 training omission: 0
Fixed cumulative value 1 test omission: 0
Fixed cumulative value 1 binomial probability: 2.59E-19
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.1365
Fixed cumulative value 5 area: 0.2903
Fixed cumulative value 5 training omission: 0.0145
Fixed cumulative value 5 test omission: 0.0377
Fixed cumulative value 5 binomial probability: 2.20E-27
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.2026
Fixed cumulative value 10 area: 0.2294
Fixed cumulative value 10 training omission: 0.0413
Fixed cumulative value 10 test omission: 0.0377
Fixed cumulative value 10 binomial probability: 3.36E-37
Minimum training presence cumulative threshold: 1.2939
Minimum training presence logistic threshold: 0.0454
Minimum training presence area: 0.3822
Minimum training presence training omission: 0
Minimum training presence test omission: 0.0189
Minimum training presence binomial probability: 1.44E-19
10 percentile training presence cumulative threshold: 19.7143
10 percentile training presence logistic threshold: 0.3065
10 percentile training presence area: 0.1583
10 percentile training presence training omission: 0.0992
10 percentile training presence test omission: 0.1321
10 percentile training presence binomial probability: 8.80E-46
Equal training sensitivity and specificity cumulative threshold: 23.7832
Equal training sensitivity and specificity logistic threshold: 0.3461
Equal training sensitivity and specificity area: 0.1377
Equal training sensitivity and specificity training omission: 0.1384
Equal training sensitivity and specificity test omission: 0.1321
Equal training sensitivity and specificity binomial probability: 5.19E-54
Maximum training sensitivity plus specificity cumulative threshold: 14.3851
Maximum training sensitivity plus specificity logistic threshold: 0.2532
Maximum training sensitivity plus specificity area: 0.1926
Maximum training sensitivity plus specificity training omission: 0.064
Maximum training sensitivity plus specificity test omission: 0.0943
Maximum training sensitivity plus specificity binomial probability: 6.90E-40
Equal test sensitivity and specificity cumulative threshold: 24.9737

Equal test sensitivity and specificity logistic threshold: 0.3543

Equal test sensitivity and specificity area: 0.132

Equal test sensitivity and specificity training omission: 0.1467

Equal test sensitivity and specificity test omission: 0.1321

Equal test sensitivity and specificity binomial probability: 1.02E-56

Maximum test sensitivity plus specificity cumulative threshold: 25.8445

Maximum test sensitivity plus specificity logistic threshold: 0.3651

Maximum test sensitivity plus specificity area: 0.1282

Maximum test sensitivity plus specificity training omission: 0.1591

Maximum test sensitivity plus specificity test omission: 0.1321

Maximum test sensitivity plus specificity binomial probability: 1.10E-58

Balance training omission, predicted area and threshold value cumulative threshold: 1.2939

Balance training omission, predicted area and threshold value logistic threshold: 0.0454

Balance training omission, predicted area and threshold value area: 0.3822

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

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

Balance training omission, predicted area and threshold value binomial probability: 1.44E-19

Equate entropy of thresholded and original distributions cumulative threshold: 8.309

Equate entropy of thresholded and original distributions logistic threshold: 0.1809

Equate entropy of thresholded and original distributions area: 0.2471

Equate entropy of thresholded and original distributions training omission: 0.031

Equate entropy of thresholded and original distributions test omission: 0.0377

Equate entropy of thresholded and original distributions binomial probability: 7.47E-34

Source

-

Metadata

File identifier	0394dfb5-d2a3-4025-ba26-af6cf5ea8b9c XML		
Metadata language	English		
Character set	UTF8		
Hierarchy level	Dataset		
Date stamp	2022-01-31T13:39:49.821Z		
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

