

EUNIS habitat type F4.2, 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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	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

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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-f4-2_p_1940-2011_v01_r00/F4-2_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/6a01654d-43ff-4c0c-acc0-2bc5063367e0	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: 2835</p> <p>Regularized training gain: 0.591</p>
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Unregularized training gain: 0.627

Iterations: 500

Training AUC: 0.7839

#Test samples: 314

Test gain: 0.6079

Test AUC: 0.7792

AUC Standard Deviation: 0.0091

#Background points: 7833

bio_12_etr2_ras contribution: 3.1502

bio_15_etr2_ras contribution: 1.5042

bio_18_etr2_ras contribution: 0.1225

bio_4_etr2_ras contribution: 72.1137

bio_8_etr2_ras contribution: 0.0238

bld_m_sd1_1km_eu_ll contribution: 0.3832

cecum_m_sd1_1km_eu_ll contribution: 0.0446

clyppt_m_sd1_1km_eu_ll contribution: 0.4387

crvol_m_sd1_1km_eu_ll contribution: 0.432

dist2water1km contribution: 0.0888

orcdrc_m_sd1_1km_eu_ll contribution: 0.2058

pet_he_yr contribution: 9.17

phihox_m_sd1_1km_eu_ll contribution: 11.3945

sltppt_m_sd1_1km_eu_ll contribution: 0.2384

sndppt_m_sd1_1km_eu_ll contribution: 0.3866

solar_1km contribution: 0.303

bio_12_etr2_ras permutation importance: 0.117

bio_15_etr2_ras permutation importance: 2.2851

bio_18_etr2_ras permutation importance: 0.4573

bio_4_etr2_ras permutation importance: 71.4457

bio_8_etr2_ras permutation importance: 0.1852

bld_m_sd1_1km_eu_ll permutation importance: 0.9947

cecum_m_sd1_1km_eu_ll permutation importance: 0.3459

clyppt_m_sd1_1km_eu_ll permutation importance: 2.6969

crvol_m_sd1_1km_eu_ll permutation importance: 3.1712

dist2water1km permutation importance: 0.3246

orcdrc_m_sd1_1km_eu_ll permutation importance: 0.8905

pet_he_yr permutation importance: 9.1033

phihox_m_sd1_1km_eu_ll permutation importance: 5.9395

sltppt_m_sd1_1km_eu_ll permutation importance: 0.5438

sndppt_m_sd1_1km_eu_ll permutation importance: 0.8147

solar_1km permutation importance: 0.6845

Entropy: 8.3765

Prevalence (average of logistic output over background sites): 0.2728

Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.052
Fixed cumulative value 1 area: 0.6314
Fixed cumulative value 1 training omission: 0.0056
Fixed cumulative value 1 test omission: 0.0064
Fixed cumulative value 1 binomial probability: 1.09E-40
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.2581
Fixed cumulative value 5 area: 0.5084
Fixed cumulative value 5 training omission: 0.0325
Fixed cumulative value 5 test omission: 0.0446
Fixed cumulative value 5 binomial probability: 7.52E-57
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.3458
Fixed cumulative value 10 area: 0.4449
Fixed cumulative value 10 training omission: 0.0832
Fixed cumulative value 10 test omission: 0.0924
Fixed cumulative value 10 binomial probability: 1.85E-61
Minimum training presence cumulative threshold: 0.0102
Minimum training presence logistic threshold: 0.0022
Minimum training presence area: 0.9515
Minimum training presence training omission: 0
Minimum training presence test omission: 0
Minimum training presence binomial probability: 3.15E-05
10 percentile training presence cumulative threshold: 11.8784
10 percentile training presence logistic threshold: 0.3692
10 percentile training presence area: 0.4261
10 percentile training presence training omission: 0.0998
10 percentile training presence test omission: 0.1019
10 percentile training presence binomial probability: 1.86E-64
Equal training sensitivity and specificity cumulative threshold: 30.6404
Equal training sensitivity and specificity logistic threshold: 0.4914
Equal training sensitivity and specificity area: 0.293
Equal training sensitivity and specificity training omission: 0.2928
Equal training sensitivity and specificity test omission: 0.3217
Equal training sensitivity and specificity binomial probability: 3.50E-51
Maximum training sensitivity plus specificity cumulative threshold: 13.9208
Maximum training sensitivity plus specificity logistic threshold: 0.3895
Maximum training sensitivity plus specificity area: 0.4076
Maximum training sensitivity plus specificity training omission: 0.1175
Maximum training sensitivity plus specificity test omission: 0.1146
Maximum training sensitivity plus specificity binomial probability: 0.00E+00
Equal test sensitivity and specificity cumulative threshold: 28.9913

Equal test sensitivity and specificity logistic threshold: 0.4849

Equal test sensitivity and specificity area: 0.3026

Equal test sensitivity and specificity training omission: 0.2751

Equal test sensitivity and specificity test omission: 0.3025

Equal test sensitivity and specificity binomial probability: 1.07E-52

Maximum test sensitivity plus specificity cumulative threshold: 15.2009

Maximum test sensitivity plus specificity logistic threshold: 0.4009

Maximum test sensitivity plus specificity area: 0.3968

Maximum test sensitivity plus specificity training omission: 0.1309

Maximum test sensitivity plus specificity test omission: 0.1146

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

Balance training omission, predicted area and threshold value cumulative threshold: 1.4311

Balance training omission, predicted area and threshold value logistic threshold: 0.0865

Balance training omission, predicted area and threshold value area: 0.5981

Balance training omission, predicted area and threshold value training omission: 0.0074

Balance training omission, predicted area and threshold value test omission: 0.0127

Balance training omission, predicted area and threshold value binomial probability: 3.12E-45

Equate entropy of thresholded and original distributions cumulative threshold: 2.6363

Equate entropy of thresholded and original distributions logistic threshold: 0.1806

Equate entropy of thresholded and original distributions area: 0.5544

Equate entropy of thresholded and original distributions training omission: 0.0138

Equate entropy of thresholded and original distributions test omission: 0.0159

Equate entropy of thresholded and original distributions binomial probability: 2.94E-53

Source

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Metadata

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Metadata language	English		
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	European Environment Agency		sdi@eea.europa.eu Point of contact

Overviews



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