

EUNIS habitat type B1.5a, 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: Coastal sand dunes and sea shores according to Bohn map (P1)

Remarks: Inland prediction should be ignored. Hardly any prediction in the Baltic region.

Coastal habitats are difficult to model and often deliver unsatisfying results. There are various reasons for this; 1) the area in which the habitat occurs is very small, 2) some observations do not match with all environmental layers and are therefore left out of the analysis, 3) lack of observation data in large parts of the potential area.

Simple

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Edition	01		
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Point of contact	Organisation name	Individual name	Electronic mail address Role
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	European Environment Agency		info@eea.eur info@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"> heathland tundra terrestrial ecosystem coastal environment natural area
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 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
CRS identifier	EPSG:3035
Distribution format	<ul style="list-style-type: none"> • GeoTIFF ()

OnLine resource

No information provided.

Hierarchy level	Dataset
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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 (Philips 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: 17</p> <p>Regularized training gain: 5.1816</p> <p>Unregularized training gain: 5.467</p> <p>Iterations: 500</p>
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Training AUC: 0.9983

#Test samples: 1

Test gain: 5.5287

Test AUC: 0.9978

AUC Standard Deviation: -1

#Background points: 5017

bio_12_etr2_ras contribution: 0.0401

bio_15_etr2_ras contribution: 0

bio_18_etr2_ras contribution: 9.181

bio_4_etr2_ras contribution: 16.8567

bio_8_etr2_ras contribution: 0.9176

bld_m_sd1_1km_eu_ll contribution: 0

cecum_m_sd1_1km_eu_ll contribution: 0.0174

clyppt_m_sd1_1km_eu_ll contribution: 0.4169

crvol_m_sd1_1km_eu_ll contribution: 1.8697

dist2water1km contribution: 65.2878

orcdrc_m_sd1_1km_eu_ll contribution: 0.1019

pet_he_yr contribution: 1.6373

phihox_m_sd1_1km_eu_ll contribution: 0

sltppt_m_sd1_1km_eu_ll contribution: 3.1799

sndppt_m_sd1_1km_eu_ll contribution: 0.4938

solar_1km contribution: 0

bio_12_etr2_ras permutation importance: 0.0154

bio_15_etr2_ras permutation importance: 0

bio_18_etr2_ras permutation importance: 0

bio_4_etr2_ras permutation importance: 30.0307

bio_8_etr2_ras permutation importance: 15.1268

bld_m_sd1_1km_eu_ll permutation importance: 0

cecum_m_sd1_1km_eu_ll permutation importance: 0

clyppt_m_sd1_1km_eu_ll permutation importance: 0

crvol_m_sd1_1km_eu_ll permutation importance: 0.269

dist2water1km permutation importance: 4.8194

orcdrc_m_sd1_1km_eu_ll permutation importance: 0

pet_he_yr permutation importance: 49.7387

phihox_m_sd1_1km_eu_ll permutation importance: 0

sltppt_m_sd1_1km_eu_ll permutation importance: 0

sndppt_m_sd1_1km_eu_ll permutation importance: 0

solar_1km permutation importance: 0

Entropy: 3.3393

Prevalence (average of logistic output over background sites): 0.0025

Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.0012

Fixed cumulative value 1 area: 0.0504

Fixed cumulative value 1 training omission: 0
Fixed cumulative value 1 test omission: 0
Fixed cumulative value 1 binomial probability: 5.04E-02
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.0215
Fixed cumulative value 5 area: 0.0078
Fixed cumulative value 5 training omission: 0
Fixed cumulative value 5 test omission: 0
Fixed cumulative value 5 binomial probability: 7.77E-03
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.2141
Fixed cumulative value 10 area: 0.0036
Fixed cumulative value 10 training omission: 0
Fixed cumulative value 10 test omission: 0
Fixed cumulative value 10 binomial probability: 3.59E-03
Minimum training presence cumulative threshold: 13.0668
Minimum training presence logistic threshold: 0.4045
Minimum training presence area: 0.0034
Minimum training presence training omission: 0
Minimum training presence test omission: 0
Minimum training presence binomial probability: 3.39E-03
10 percentile training presence cumulative threshold: 15.4948
10 percentile training presence logistic threshold: 0.4064
10 percentile training presence area: 0.003
10 percentile training presence training omission: 0.0588
10 percentile training presence test omission: 0
10 percentile training presence binomial probability: 2.99E-03
Equal training sensitivity and specificity cumulative threshold: 13.0668
Equal training sensitivity and specificity logistic threshold: 0.4045
Equal training sensitivity and specificity area: 0.0034
Equal training sensitivity and specificity training omission: 0
Equal training sensitivity and specificity test omission: 0
Equal training sensitivity and specificity binomial probability: 3.39E-03
Maximum training sensitivity plus specificity cumulative threshold: 13.0668
Maximum training sensitivity plus specificity logistic threshold: 0.4045
Maximum training sensitivity plus specificity area: 0.0034
Maximum training sensitivity plus specificity training omission: 0
Maximum training sensitivity plus specificity test omission: 0
Maximum training sensitivity plus specificity binomial probability: 3.39E-03
Equal test sensitivity and specificity cumulative threshold: 32.5105
Equal test sensitivity and specificity logistic threshold: 0.586
Equal test sensitivity and specificity area: 0.0022

Equal test sensitivity and specificity training omission: 0.3529

Equal test sensitivity and specificity test omission: 0

Equal test sensitivity and specificity binomial probability: 2.19E-03

Maximum test sensitivity plus specificity cumulative threshold: 32.5105

Maximum test sensitivity plus specificity logistic threshold: 0.586

Maximum test sensitivity plus specificity area: 0.0022

Maximum test sensitivity plus specificity training omission: 0.3529

Maximum test sensitivity plus specificity test omission: 0

Maximum test sensitivity plus specificity binomial probability: 2.19E-03

Balance training omission, predicted area and threshold value cumulative threshold: 1.4391

Balance training omission, predicted area and threshold value logistic threshold: 0.0022

Balance training omission, predicted area and threshold value area: 0.0355

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

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

Balance training omission, predicted area and threshold value binomial probability: 3.55E-02

Equate entropy of thresholded and original distributions cumulative threshold: 6.197

Equate entropy of thresholded and original distributions logistic threshold: 0.0376

Equate entropy of thresholded and original distributions area: 0.0056

Equate entropy of thresholded and original distributions training omission: 0

Equate entropy of thresholded and original distributions test omission: 0

Equate entropy of thresholded and original distributions binomial probability: 5.58E-03

Source

- [EUNIS habitat type B1-5a distribution based on vegetation plot data - version 1, June 2016](#)

Metadata

File identifier	62021d4b-5632-4355-b801-7a03785ff7a7 XML		
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Overviews



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