

EUNIS habitat type B1.6a, 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 along the French coast.

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 observations 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"> natural area tundra terrestrial ecosystem heathland coastal environment
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: 54</p> <p>Regularized training gain: 3.9324</p> <p>Unregularized training gain: 4.1946</p> <p>Iterations: 500</p>
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Training AUC: 0.9944

#Test samples: 6

Test gain: 4.7107

Test AUC: 0.9974

AUC Standard Deviation: 0.0013

#Background points: 5054

bio_12_ets2_ras contribution: 0

bio_15_ets2_ras contribution: 4.9242

bio_18_ets2_ras contribution: 0.2755

bio_4_ets2_ras contribution: 41.7572

bio_8_ets2_ras contribution: 0.3381

bld_m_sd1_1km_eu_ll contribution: 2.5775

cecum_m_sd1_1km_eu_ll contribution: 0.7106

clyppt_m_sd1_1km_eu_ll contribution: 0.4876

crvol_m_sd1_1km_eu_ll contribution: 7.6674

dist2water1km contribution: 5.2114

orcdrc_m_sd1_1km_eu_ll contribution: 0.0983

pet_he_yr contribution: 9.389

phihox_m_sd1_1km_eu_ll contribution: 2.0785

sltppt_m_sd1_1km_eu_ll contribution: 23.9492

sndppt_m_sd1_1km_eu_ll contribution: 0.5353

solar_1km contribution: 0

bio_12_ets2_ras permutation importance: 0

bio_15_ets2_ras permutation importance: 0.774

bio_18_ets2_ras permutation importance: 0.0314

bio_4_ets2_ras permutation importance: 83.0457

bio_8_ets2_ras permutation importance: 0.2541

bld_m_sd1_1km_eu_ll permutation importance: 0.9691

cecum_m_sd1_1km_eu_ll permutation importance: 0.0498

clyppt_m_sd1_1km_eu_ll permutation importance: 0.0904

crvol_m_sd1_1km_eu_ll permutation importance: 0.3654

dist2water1km permutation importance: 0.0681

orcdrc_m_sd1_1km_eu_ll permutation importance: 0.1283

pet_he_yr permutation importance: 11.412

phihox_m_sd1_1km_eu_ll permutation importance: 0.4309

sltppt_m_sd1_1km_eu_ll permutation importance: 2.3351

sndppt_m_sd1_1km_eu_ll permutation importance: 0.0458

solar_1km permutation importance: 0

Entropy: 4.6004

Prevalence (average of logistic output over background sites): 0.0091

Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.0067

Fixed cumulative value 1 area: 0.0637

Fixed cumulative value 1 training omission: 0
Fixed cumulative value 1 test omission: 0
Fixed cumulative value 1 binomial probability: 6.69E-08
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.0473
Fixed cumulative value 5 area: 0.0269
Fixed cumulative value 5 training omission: 0
Fixed cumulative value 5 test omission: 0
Fixed cumulative value 5 binomial probability: 3.80E-10
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.1371
Fixed cumulative value 10 area: 0.016
Fixed cumulative value 10 training omission: 0.0185
Fixed cumulative value 10 test omission: 0
Fixed cumulative value 10 binomial probability: 1.70E-11
Minimum training presence cumulative threshold: 9.5384
Minimum training presence logistic threshold: 0.1231
Minimum training presence area: 0.0166
Minimum training presence training omission: 0
Minimum training presence test omission: 0
Minimum training presence binomial probability: 2.11E-11
10 percentile training presence cumulative threshold: 19.3742
10 percentile training presence logistic threshold: 0.3979
10 percentile training presence area: 0.0101
10 percentile training presence training omission: 0.0926
10 percentile training presence test omission: 0
10 percentile training presence binomial probability: 1.06E-12
Equal training sensitivity and specificity cumulative threshold: 9.6841
Equal training sensitivity and specificity logistic threshold: 0.1266
Equal training sensitivity and specificity area: 0.0166
Equal training sensitivity and specificity training omission: 0.0185
Equal training sensitivity and specificity test omission: 0
Equal training sensitivity and specificity binomial probability: 2.11E-11
Maximum training sensitivity plus specificity cumulative threshold: 9.5384
Maximum training sensitivity plus specificity logistic threshold: 0.1231
Maximum training sensitivity plus specificity area: 0.0166
Maximum training sensitivity plus specificity training omission: 0
Maximum training sensitivity plus specificity test omission: 0
Maximum training sensitivity plus specificity binomial probability: 2.11E-11
Equal test sensitivity and specificity cumulative threshold: 25.3253
Equal test sensitivity and specificity logistic threshold: 0.4905
Equal test sensitivity and specificity area: 0.0085

Equal test sensitivity and specificity training omission: 0.2222

Equal test sensitivity and specificity test omission: 0

Equal test sensitivity and specificity binomial probability: 3.79E-13

Maximum test sensitivity plus specificity cumulative threshold: 25.3253

Maximum test sensitivity plus specificity logistic threshold: 0.4905

Maximum test sensitivity plus specificity area: 0.0085

Maximum test sensitivity plus specificity training omission: 0.2222

Maximum test sensitivity plus specificity test omission: 0

Maximum test sensitivity plus specificity binomial probability: 3.79E-13

Balance training omission, predicted area and threshold value cumulative threshold: 1.0885

Balance training omission, predicted area and threshold value logistic threshold: 0.0077

Balance training omission, predicted area and threshold value area: 0.0613

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: 5.32E-08

Equate entropy of thresholded and original distributions cumulative threshold: 7.8138

Equate entropy of thresholded and original distributions logistic threshold: 0.0986

Equate entropy of thresholded and original distributions area: 0.0196

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: 5.65E-11

Source

- [EUNIS habitat type B1-6a distribution based on vegetation plot data - version 1, June 2016](#)

Metadata

File identifier	6dfd6369-24a1-494a-854f-29408270c54b XML		
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	European Environment Agency		sdi@eea.europa.eu Point of contact

Overviews



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