

## EUNIS habitat type B1.5b, 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

<b>Date (Publication)</b>	2016-07-01		
<b>Date (Creation)</b>	2016-07-06		
<b>Edition</b>	01		
<b>Citation identifier</b>	eea_r_3035_1_km_eunis-hab-b1-5b_p_1940-2011_v01_r00		
<b>Status</b>	Obsolete		
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No information provided.

<b>Maintenance and update frequency</b>	Unknown
<b>GEMET - INSPIRE themes, version 1.0</b>	<ul style="list-style-type: none"> <li>Habitats and biotopes</li> </ul>
<b>GEMET</b>	<ul style="list-style-type: none"> <li>natural area</li> <li>heathland</li> <li>tundra</li> <li>terrestrial ecosystem</li> <li>coastal environment</li> </ul>
<b>Keywords</b>	

<b>Keywords</b>	
<b>Place</b>	<ul style="list-style-type: none"><li>• Europe</li></ul>
<b>EEA topics</b>	<ul style="list-style-type: none"><li>• Biodiversity</li></ul>
<b>Use limitation</b>	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 ( <a href="http://www.eea.europa.eu/legal/copyright">http://www.eea.europa.eu/legal/copyright</a> ). Copyright holder: European Environment Agency (EEA).
<b>Access constraints</b>	Other restrictions
<b>Other constraints</b>	<a href="#">no limitations to public access</a>
<b>Spatial representation type</b>	Grid
<b>Distance</b>	1 km
<b>Language of dataset</b>	English
<b>Character set</b>	UTF8
<b>Topic category</b>	<ul style="list-style-type: none"><li>• Biota</li></ul>

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<b>Begin date</b>	1940-01-01
<b>End date</b>	2011-12-31
<b>CRS identifier</b>	<a href="#">EPSG:3035</a>
<b>Distribution format</b>	<ul style="list-style-type: none"> <li>• GeoTIFF ( )</li> </ul>

### OnLine resource

No information provided.

<b>Hierarchy level</b>	Dataset
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### Conformance result

<b>Date (Publication)</b>	2010-12-08
<b>Explanation</b>	See the referenced specification

<b>Statement</b>	<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 ( <a href="http://www.cs.princeton.edu/~schapire/maxent/">http://www.cs.princeton.edu/~schapire/maxent/</a>). 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 &amp; Distance to water (rivers, lakes, sea).</p> <p>Statistical output of the model:</p> <p>#Training samples: 27</p> <p>Regularized training gain: 4.4856</p> <p>Unregularized training gain: 4.7894</p> <p>Iterations: 500</p>
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Training AUC: 0.9971

#Test samples: 2

Test gain: 5.0918

Test AUC: 0.9984

AUC Standard Deviation: 0.0004

#Background points: 5027

bio\_12\_ets2\_ras contribution: 0.3312

bio\_15\_ets2\_ras contribution: 0.4732

bio\_18\_ets2\_ras contribution: 5.0517

bio\_4\_ets2\_ras contribution: 27.8413

bio\_8\_ets2\_ras contribution: 3.4666

bld\_m\_sd1\_1km\_eu\_ll contribution: 1.711

cecum\_m\_sd1\_1km\_eu\_ll contribution: 0

clyppt\_m\_sd1\_1km\_eu\_ll contribution: 0.0525

crvol\_m\_sd1\_1km\_eu\_ll contribution: 0.3776

dist2water1km contribution: 48.7813

ordrc\_m\_sd1\_1km\_eu\_ll contribution: 0.2131

pet\_he\_yr contribution: 3.0278

phihox\_m\_sd1\_1km\_eu\_ll contribution: 0.1383

sltppt\_m\_sd1\_1km\_eu\_ll contribution: 7.4575

sndppt\_m\_sd1\_1km\_eu\_ll contribution: 1.077

solar\_1km contribution: 0

bio\_12\_ets2\_ras permutation importance: 0.061

bio\_15\_ets2\_ras permutation importance: 0.0076

bio\_18\_ets2\_ras permutation importance: 0

bio\_4\_ets2\_ras permutation importance: 41.5688

bio\_8\_ets2\_ras permutation importance: 25.52

bld\_m\_sd1\_1km\_eu\_ll permutation importance: 0.3788

cecum\_m\_sd1\_1km\_eu\_ll permutation importance: 0

clyppt\_m\_sd1\_1km\_eu\_ll permutation importance: 0.0153

crvol\_m\_sd1\_1km\_eu\_ll permutation importance: 0.0076

dist2water1km permutation importance: 0.2593

ordrc\_m\_sd1\_1km\_eu\_ll permutation importance: 0.0483

pet\_he\_yr permutation importance: 31.4162

phihox\_m\_sd1\_1km\_eu\_ll permutation importance: 0.0076

sltppt\_m\_sd1\_1km\_eu\_ll permutation importance: 0.6712

sndppt\_m\_sd1\_1km\_eu\_ll permutation importance: 0

solar\_1km permutation importance: 0.0381

Entropy: 4.0567

Prevalence (average of logistic output over background sites): 0.0053

Fixed cumulative value 1 cumulative threshold: 1

Fixed cumulative value 1 logistic threshold: 0.0034

Fixed cumulative value 1 area: 0.0553

Fixed cumulative value 1 training omission: 0  
Fixed cumulative value 1 test omission: 0  
Fixed cumulative value 1 binomial probability: 3.06E-03  
Fixed cumulative value 5 cumulative threshold: 5  
Fixed cumulative value 5 logistic threshold: 0.0367  
Fixed cumulative value 5 area: 0.0189  
Fixed cumulative value 5 training omission: 0  
Fixed cumulative value 5 test omission: 0  
Fixed cumulative value 5 binomial probability: 3.57E-04  
Fixed cumulative value 10 cumulative threshold: 10  
Fixed cumulative value 10 logistic threshold: 0.1118  
Fixed cumulative value 10 area: 0.0099  
Fixed cumulative value 10 training omission: 0  
Fixed cumulative value 10 test omission: 0  
Fixed cumulative value 10 binomial probability: 9.89E-05  
Minimum training presence cumulative threshold: 15.6885  
Minimum training presence logistic threshold: 0.2643  
Minimum training presence area: 0.007  
Minimum training presence training omission: 0  
Minimum training presence test omission: 0  
Minimum training presence binomial probability: 4.85E-05  
10 percentile training presence cumulative threshold: 17.868  
10 percentile training presence logistic threshold: 0.3101  
10 percentile training presence area: 0.0062  
10 percentile training presence training omission: 0.0741  
10 percentile training presence test omission: 0  
10 percentile training presence binomial probability: 3.80E-05  
Equal training sensitivity and specificity cumulative threshold: 15.6885  
Equal training sensitivity and specificity logistic threshold: 0.2643  
Equal training sensitivity and specificity area: 0.007  
Equal training sensitivity and specificity training omission: 0  
Equal training sensitivity and specificity test omission: 0  
Equal training sensitivity and specificity binomial probability: 4.85E-05  
Maximum training sensitivity plus specificity cumulative threshold: 15.6885  
Maximum training sensitivity plus specificity logistic threshold: 0.2643  
Maximum training sensitivity plus specificity area: 0.007  
Maximum training sensitivity plus specificity training omission: 0  
Maximum training sensitivity plus specificity test omission: 0  
Maximum training sensitivity plus specificity binomial probability: 4.85E-05  
Equal test sensitivity and specificity cumulative threshold: 58.0778  
Equal test sensitivity and specificity logistic threshold: 0.6292  
Equal test sensitivity and specificity area: 0.0018

Equal test sensitivity and specificity training omission: 0.6296

Equal test sensitivity and specificity test omission: 0

Equal test sensitivity and specificity binomial probability: 3.20E-06

Maximum test sensitivity plus specificity cumulative threshold: 58.0778

Maximum test sensitivity plus specificity logistic threshold: 0.6292

Maximum test sensitivity plus specificity area: 0.0018

Maximum test sensitivity plus specificity training omission: 0.6296

Maximum test sensitivity plus specificity test omission: 0

Maximum test sensitivity plus specificity binomial probability: 3.20E-06

Balance training omission, predicted area and threshold value cumulative threshold: 1.2065

Balance training omission, predicted area and threshold value logistic threshold: 0.0046

Balance training omission, predicted area and threshold value area: 0.0495

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: 2.45E-03

Equate entropy of thresholded and original distributions cumulative threshold: 8.7216

Equate entropy of thresholded and original distributions logistic threshold: 0.081

Equate entropy of thresholded and original distributions area: 0.0113

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: 1.29E-04

**Source**

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

**Metadata**

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<b>Metadata language</b>	English		
<b>Character set</b>	UTF8		
<b>Hierarchy level</b>	Dataset		
<b>Date stamp</b>	2022-01-31T13:48:11.081Z		
<b>Metadata standard name</b>	ISO 19115/19139		
<b>Metadata standard version</b>	1.0		
<b>Metadata author</b>	<b>Organisation name</b>	<b>Individual name</b>	<b>Electronic mail address</b> <b>Role</b>
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**Overviews**



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