

EUNIS habitat type F7.1, 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: -

Simple

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	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
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-f7-1_p_1940-2011_v01_r00/F7-1_ed1.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/a5fa4a23-d1b0-4150-92f6-58c84f9f5559	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: 14</p> <p>Regularized training gain: 3.6938</p>
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Unregularized training gain: 4.2035
Iterations: 220
Training AUC: 0.9931
#Test samples: 1
Test gain: 1.8738
Test AUC: 0.9766
AUC Standard Deviation: -1
#Background points: 5010
bio_12_etr2_ras contribution: 5.8502
bio_15_etr2_ras contribution: 20.7746
bio_18_etr2_ras contribution: 50.9292
bio_4_etr2_ras contribution: 7.3093
bio_8_etr2_ras contribution: 0
bld_m_sd1_1km_eu_ll contribution: 0.0243
cecum_m_sd1_1km_eu_ll contribution: 0.0036
clyppt_m_sd1_1km_eu_ll contribution: 2.1209
crvol_m_sd1_1km_eu_ll contribution: 0
dist2water1km contribution: 0.5286
eu_mask_1km contribution: 0
orcdrc_m_sd1_1km_eu_ll contribution: 0.1832
pet_he_yr contribution: 0.5715
phihox_m_sd1_1km_eu_ll contribution: 8.6147
sltppt_m_sd1_1km_eu_ll contribution: 0.5677
sndppt_m_sd1_1km_eu_ll contribution: 0
solar_1km contribution: 2.5222
bio_12_etr2_ras permutation importance: 0
bio_15_etr2_ras permutation importance: 0.3316
bio_18_etr2_ras permutation importance: 93.5178
bio_4_etr2_ras permutation importance: 0.7683
bio_8_etr2_ras permutation importance: 0
bld_m_sd1_1km_eu_ll permutation importance: 0
cecum_m_sd1_1km_eu_ll permutation importance: 0.0415
clyppt_m_sd1_1km_eu_ll permutation importance: 0.7738
crvol_m_sd1_1km_eu_ll permutation importance: 0
dist2water1km permutation importance: 0.1658
eu_mask_1km permutation importance: 0
orcdrc_m_sd1_1km_eu_ll permutation importance: 0.0843
pet_he_yr permutation importance: 0.0636
phihox_m_sd1_1km_eu_ll permutation importance: 1.368
sltppt_m_sd1_1km_eu_ll permutation importance: 0
sndppt_m_sd1_1km_eu_ll permutation importance: 0
solar_1km permutation importance: 2.8853
Training gain without bio_12_etr2_ras: 3.6789

Training gain without bio_15_etr2_ras: 3.661
Training gain without bio_18_etr2_ras: 3.2293
Training gain without bio_4_etr2_ras: 3.648
Training gain without bio_8_etr2_ras: 3.6938
Training gain without bld_m_sd1_1km_eu_ll: 3.6888
Training gain without cecsum_m_sd1_1km_eu_ll: 3.6934
Training gain without clyppt_m_sd1_1km_eu_ll: 3.6365
Training gain without crvol_m_sd1_1km_eu_ll: 3.6938
Training gain without dist2water1km: 3.6633
Training gain without eu_mask_1km: 3.6938
Training gain without orcdrc_m_sd1_1km_eu_ll: 3.6898
Training gain without pet_he_yr: 3.6882
Training gain without phihox_m_sd1_1km_eu_ll: 3.4709
Training gain without sltppt_m_sd1_1km_eu_ll: 3.6833
Training gain without sndppt_m_sd1_1km_eu_ll: 3.6938
Training gain without solar_1km: 3.6186
Training gain with only bio_12_etr2_ras: 1.058
Training gain with only bio_15_etr2_ras: 1.8027
Training gain with only bio_18_etr2_ras: 2.5913
Training gain with only bio_4_etr2_ras: 0.3171
Training gain with only bio_8_etr2_ras: 0.1227
Training gain with only bld_m_sd1_1km_eu_ll: 1.2031
Training gain with only cecsum_m_sd1_1km_eu_ll: 0.0889
Training gain with only clyppt_m_sd1_1km_eu_ll: 1.0172
Training gain with only crvol_m_sd1_1km_eu_ll: 0.0007
Training gain with only dist2water1km: 0.0921
Training gain with only eu_mask_1km: 0
Training gain with only orcdrc_m_sd1_1km_eu_ll: 0.1227
Training gain with only pet_he_yr: 0.6382
Training gain with only phihox_m_sd1_1km_eu_ll: 0.4811
Training gain with only sltppt_m_sd1_1km_eu_ll: 0.0672
Training gain with only sndppt_m_sd1_1km_eu_ll: 0.1149
Training gain with only solar_1km: 0.3461
Test gain without bio_12_etr2_ras: 1.9413
Test gain without bio_15_etr2_ras: 1.7474
Test gain without bio_18_etr2_ras: 1.1414
Test gain without bio_4_etr2_ras: 1.3894
Test gain without bio_8_etr2_ras: 1.8735
Test gain without bld_m_sd1_1km_eu_ll: 1.991
Test gain without cecsum_m_sd1_1km_eu_ll: 1.9039
Test gain without clyppt_m_sd1_1km_eu_ll: 1.9696
Test gain without crvol_m_sd1_1km_eu_ll: 1.8735

Test gain without dist2water1km: 1.872

Test gain without eu_mask_1km: 1.8735

Test gain without orcdrc_m_sd1_1km_eu_ll: 1.8402

Test gain without pet_he_yr: 2.0078

Test gain without phihox_m_sd1_1km_eu_ll: 2.7097

Test gain without sltppt_m_sd1_1km_eu_ll: 1.7338

Test gain without sndppt_m_sd1_1km_eu_ll: 1.8725

Test gain without solar_1km: 2.2785

Test gain with only bio_12_etr2_ras: 0.1133

Test gain with only bio_15_etr2_ras: 1.6881

Test gain with only bio_18_etr2_ras: 1.8544

Test gain with only bio_4_etr2_ras: 0.5554

Test gain with only bio_8_etr2_ras: 0.2771

Test gain with only bld_m_sd1_1km_eu_ll: -0.0124

Test gain with only cecsum_m_sd1_1km_eu_ll: 0.0557

Test gain with only clyppt_m_sd1_1km_eu_ll: 1.1395

Test gain with only crfvol_m_sd1_1km_eu_ll: -0.0124

Test gain with only dist2water1km: 0.675

Test gain with only eu_mask_1km: 0

Test gain with only orcdrc_m_sd1_1km_eu_ll: -0.0074

Test gain with only pet_he_yr: 0.5352

Test gain with only phihox_m_sd1_1km_eu_ll: 0.8038

Test gain with only sltppt_m_sd1_1km_eu_ll: 0.1664

Test gain with only sndppt_m_sd1_1km_eu_ll: 0.1828

Test gain with only solar_1km: -0.2806

AUC without bio_12_etr2_ras: 0.9772

AUC without bio_15_etr2_ras: 0.9741

AUC without bio_18_etr2_ras: 0.9679

AUC without bio_4_etr2_ras: 0.9621

AUC without bio_8_etr2_ras: 0.9766

AUC without bld_m_sd1_1km_eu_ll: 0.9778

AUC without cecsum_m_sd1_1km_eu_ll: 0.9768

AUC without clyppt_m_sd1_1km_eu_ll: 0.9778

AUC without crfvol_m_sd1_1km_eu_ll: 0.9766

AUC without dist2water1km: 0.9769

AUC without eu_mask_1km: 0.9766

AUC without orcdrc_m_sd1_1km_eu_ll: 0.9741

AUC without pet_he_yr: 0.9788

AUC without phihox_m_sd1_1km_eu_ll: 0.9844

AUC without sltppt_m_sd1_1km_eu_ll: 0.9727

AUC without sndppt_m_sd1_1km_eu_ll: 0.9766

AUC without solar_1km: 0.9822

AUC with only bio_12_etr2_ras: 0.7729

AUC with only bio_15_etr2_ras: 0.9474
AUC with only bio_18_etr2_ras: 0.9497
AUC with only bio_4_etr2_ras: 0.8575
AUC with only bio_8_etr2_ras: 0.6626
AUC with only bld_m_sd1_1km_eu_ll: 0.7924
AUC with only cecsum_m_sd1_1km_eu_ll: 0.4261
AUC with only clyppt_m_sd1_1km_eu_ll: 0.9233
AUC with only crvol_m_sd1_1km_eu_ll: 0.3696
AUC with only dist2water1km: 0.9635
AUC with only eu_mask_1km: 0.5
AUC with only orcdrc_m_sd1_1km_eu_ll: 0.4873
AUC with only pet_he_yr: 0.8378
AUC with only phihox_m_sd1_1km_eu_ll: 0.8917
AUC with only sltppt_m_sd1_1km_eu_ll: 0.7119
AUC with only sndppt_m_sd1_1km_eu_ll: 0.6198
AUC with only solar_1km: 0.3889
Entropy: 4.8254
Prevalence (average of logistic output over background sites): 0.0118
Fixed cumulative value 1 cumulative threshold: 1
Fixed cumulative value 1 logistic threshold: 0.0068
Fixed cumulative value 1 area: 0.098
Fixed cumulative value 1 training omission: 0
Fixed cumulative value 1 test omission: 0
Fixed cumulative value 1 binomial probability: 9.80E-02
Fixed cumulative value 5 cumulative threshold: 5
Fixed cumulative value 5 logistic threshold: 0.0464
Fixed cumulative value 5 area: 0.0509
Fixed cumulative value 5 training omission: 0
Fixed cumulative value 5 test omission: 0
Fixed cumulative value 5 binomial probability: 5.09E-02
Fixed cumulative value 10 cumulative threshold: 10
Fixed cumulative value 10 logistic threshold: 0.0931
Fixed cumulative value 10 area: 0.0337
Fixed cumulative value 10 training omission: 0.0714
Fixed cumulative value 10 test omission: 0
Fixed cumulative value 10 binomial probability: 3.37E-02
Minimum training presence cumulative threshold: 7.0042
Minimum training presence logistic threshold: 0.0656
Minimum training presence area: 0.0427
Minimum training presence training omission: 0
Minimum training presence test omission: 0
Minimum training presence binomial probability: 4.27E-02

10 percentile training presence cumulative threshold: 14.7004
10 percentile training presence logistic threshold: 0.1342
10 percentile training presence area: 0.0248
10 percentile training presence training omission: 0.0714
10 percentile training presence test omission: 0
10 percentile training presence binomial probability: 2.48E-02
Equal training sensitivity and specificity cumulative threshold: 7.0042
Equal training sensitivity and specificity logistic threshold: 0.0656
Equal training sensitivity and specificity area: 0.0427
Equal training sensitivity and specificity training omission: 0.0714
Equal training sensitivity and specificity test omission: 0
Equal training sensitivity and specificity binomial probability: 4.27E-02
Maximum training sensitivity plus specificity cumulative threshold: 7.0042
Maximum training sensitivity plus specificity logistic threshold: 0.0656
Maximum training sensitivity plus specificity area: 0.0427
Maximum training sensitivity plus specificity training omission: 0
Maximum training sensitivity plus specificity test omission: 0
Maximum training sensitivity plus specificity binomial probability: 4.27E-02
Equal test sensitivity and specificity cumulative threshold: 15.5883
Equal test sensitivity and specificity logistic threshold: 0.1394
Equal test sensitivity and specificity area: 0.0234
Equal test sensitivity and specificity training omission: 0.1429
Equal test sensitivity and specificity test omission: 0
Equal test sensitivity and specificity binomial probability: 2.33E-02
Maximum test sensitivity plus specificity cumulative threshold: 15.5883
Maximum test sensitivity plus specificity logistic threshold: 0.1394
Maximum test sensitivity plus specificity area: 0.0234
Maximum test sensitivity plus specificity training omission: 0.1429
Maximum test sensitivity plus specificity test omission: 0
Maximum test sensitivity plus specificity binomial probability: 2.33E-02
Balance training omission, predicted area and threshold value cumulative threshold: 1.3323
Balance training omission, predicted area and threshold value logistic threshold: 0.0098
Balance training omission, predicted area and threshold value area: 0.088
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: 8.80E-02
Equate entropy of thresholded and original distributions cumulative threshold: 14.7004
Equate entropy of thresholded and original distributions logistic threshold: 0.1342
Equate entropy of thresholded and original distributions area: 0.0248
Equate entropy of thresholded and original distributions training omission: 0.0714
Equate entropy of thresholded and original distributions test omission: 0
Equate entropy of thresholded and original distributions binomial probability: 2.48E-02

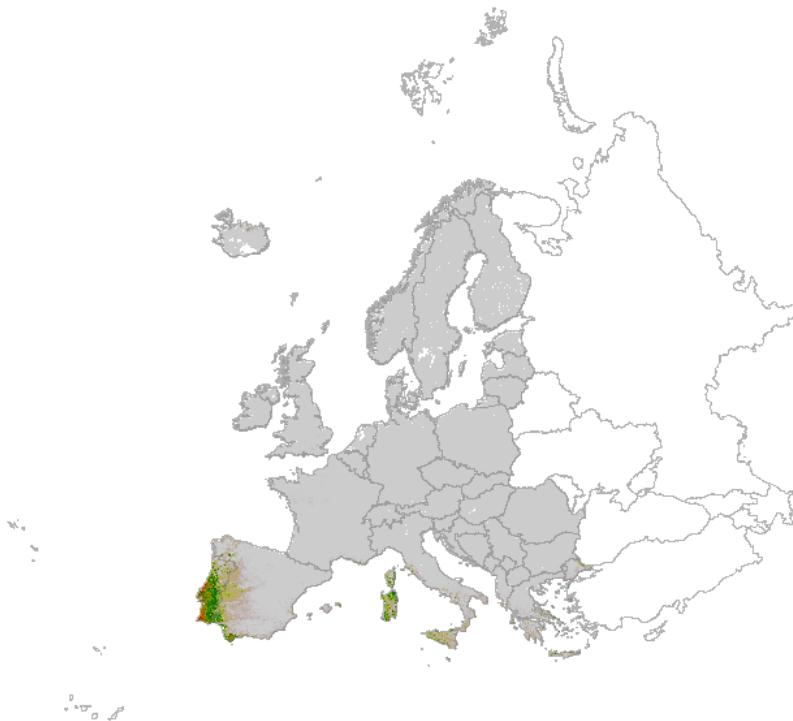
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Source

Metadata

File identifier	a5fa4a23-d1b0-4150-92f6-58c84f9f5559 XML		
Metadata language	English		
Character set	UTF8		
Hierarchy level	Dataset		
Date stamp	2022-02-01T08:14:58.714Z		
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



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