Annex 4:
This annex contains the maps of distribution of vegetation plots and the modelled habitat suitability for the revised EUNIS forest habitat types.

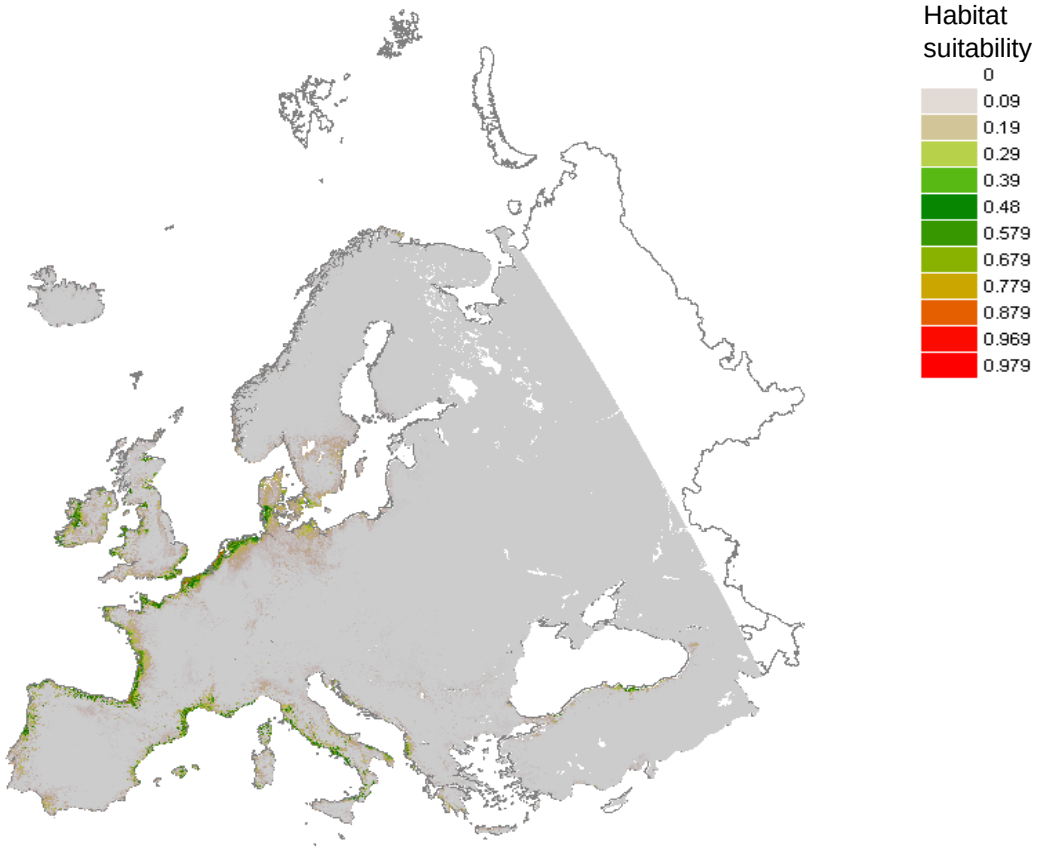
EUNIS classes and number of representing relevés

Type	Subtype	Name	Number of locations	Backgound: Forest	Backgound: Random
B1.7		Coastal dune woodland* [Coastal dune woods]	550		1
G1.1		Temperate and boreal softwood riparian woodland* [Riparian and gallery woodland, with dominant [Alnus], [Betula], [Populus] or [Salix]]	3219	1	
G1.2		Temperate and boreal hardwood riparian woodland* [Mixed riparian floodplain and gallery woodland]	5393	1	
G1.3		Mediterranean and Macaronesian riparian woodland* [Mediterranean riparian woodland]	1377	1	
G1.4		Broadleaved swamp woodland on non-acid peat* [Broadleaved swamp woodland not on acid peat]	3828	1	
G1.5		Broadleaved swamp woodland on acid peat* [Broadleaved swamp woodland on acid peat]	1956	1	
G1.6		[Fagus] woodland could be divided into two types, because of the high variation within the overall type and the possibility to make a clear division:			
	G1.6a	Fagus woodland on non-acid soils	21695		1
	G1.6b	Fagus woodland on acid soils	12981		1
G1.7		Thermophilous deciduous woodland	15196	1	
G1.8		Acidophilous Quercus woodland* [Acidophilous [Quercus]-dominated woodland]	9410		1
G1.9		Non-riverine woodland with [Betula], [Populus tremula] or [Sorbus aucuparia] has to be divided into two types:			
	G1.9a	Mountain Betula and Populus tremula woodlands on mineral soils	162	1	
	G1.9b	Lowland continental Betula and Populus tremula woodlands on mineral soil	No data		
G1.A		Mesotrophic and eutrophic deciduous woodland, not dominated by Fagus* [Meso- and eutrophic [Quercus], [Carpinus], [Fraxinus], [Acer], [Tilia], [Ulmus] and related woodland]	19668	1	
G1.B		Non-riverine Alnus woodland on mineral soil* [Non-riverine [Alnus] woodland]	No data		
G1.C		Broadleaved deciduous plantations of non site-native trees* [Highly artificial broadleaved deciduous forestry plantations]	No data		
G1.D		*Fruit and nut tree orchards is not a woodland and should be removed (it could go into EUNIS group I)*	No data		
G2.1		Mediterranean evergreen Quercus woodland* [Mediterranean evergreen [Quercus] woodland]	6493	1	
G2.2		Mainland lauriphyllous woodland* [Eurasian continental sclerophyllous woodland]	39		0
G2.3		Macaronesian lauriphyllous woodland* [Macaronesian [Laurus] woodland]	No data		
G2.4		Olea oleaster-Ceratonia siliqua woodland* [Olea europaea] - [Ceratonia siliqua] woodland]	856		1
G2.5		Phoenix groves* [[Phoenix] groves]	10		0
G2.6		Ilex aquifolium woodland* [[Ilex aquifolium] woods]	313		1
G2.7		*Macaronesian heathy woodland* [Canary Island heath woodland]*	No data		

G2.8		*Broadleaved evergreen plantations of non site-native trees* [Highly artificial broadleaved evergreen forestry plantations]*	No data		
G2.9		*Evergreen orchards and groves*	No data		
G3.1		[Abies] and [Picea] woodland has to be divided into three types (according to dominant species and geographic distribution):			
	G3.1a	Temperate mountain Picea woodland	12596		1
	G3.1b	Temperate mountain Abies woodland	6994		1
	G3.1c	Mediterranean mountain Abies woodland	64		0
G3.2		Temperate subalpine Larix-Pinus woodland* [Alpine [Larix] - [Pinus cembra] woodland]	2487		1
G3.3		[Pinus uncinata] woodland should be merged into G3.2 [Alpine [Larix] - [Pinus cembra] woodland] (this category corresponds to the same phytosociological units, with Pinus species as the usual dominant)]	No data		
G3.4		[Pinus sylvestris] woodland south of the taiga has to be divided into three types:			
	G3.4a	Temperate continental Pinus sylvestris woodland	9387	1	
	G3.4b	Temperate and submediterranean montane Pinus sylvestris-nigra woodland	3530		1
	G3.4c	Mediterranean montane Pinus sylvestris-nigra woodland	24		0
G3.5		[Pinus nigra] woodland should to be merged into the G3.4a and G3.4c types	No data		
G3.6		Mediterranean and Balkan subalpine Pinus heldreichii-peucis woodland* [balpine mediterranean [Pinus] woodland]	211		0
G3.7		Mediterranean lowland to submontane Pinus woodland* [Lowland to montane mediterranean [Pinus] woodland (excluding [Pinus nigra])]	2065		1
G3.8		*Pinus canariensis woodland* [Canary Island [Pinus canariensis] woodland]*	No data		
G3.9		Coniferous woodland dominated by [Cupressaceae] or [Taxaceae] should be divided into two types: Taxus baccata woodland and Juniperus-Cupressus woodland and further into mainland and Macaronesia.			
	G3.9a	Taxus baccata woodland	317		1
	G3.9b	Mediterranean Cupressaceae woodland	1621	1	
	G3.9c	Macaronesian Juniperus woodland	No data		
G3.A		Picea taiga woodland* [{Picea] taiga woodland]	164	0	
G3.B		Pinus sylvestris taiga woodland* [[Pinus] taiga woodland]	2		0
G3.C		Larix taiga woodland* [[Larix] taiga woodland]	No data		
G3.D		Boreal bog conifer woodland* [Boreal bog conifer woodland]	No data		
G3.E		Temperate bog conifer woodland* [Nemoral bog conifer woodland]	1047		1
G3.F		Conifer plantations of non site-native trees* [Highly artificial coniferous plantations]	No data		

B1.7 - Coastal dune woodland* [Coastal dune woods]

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

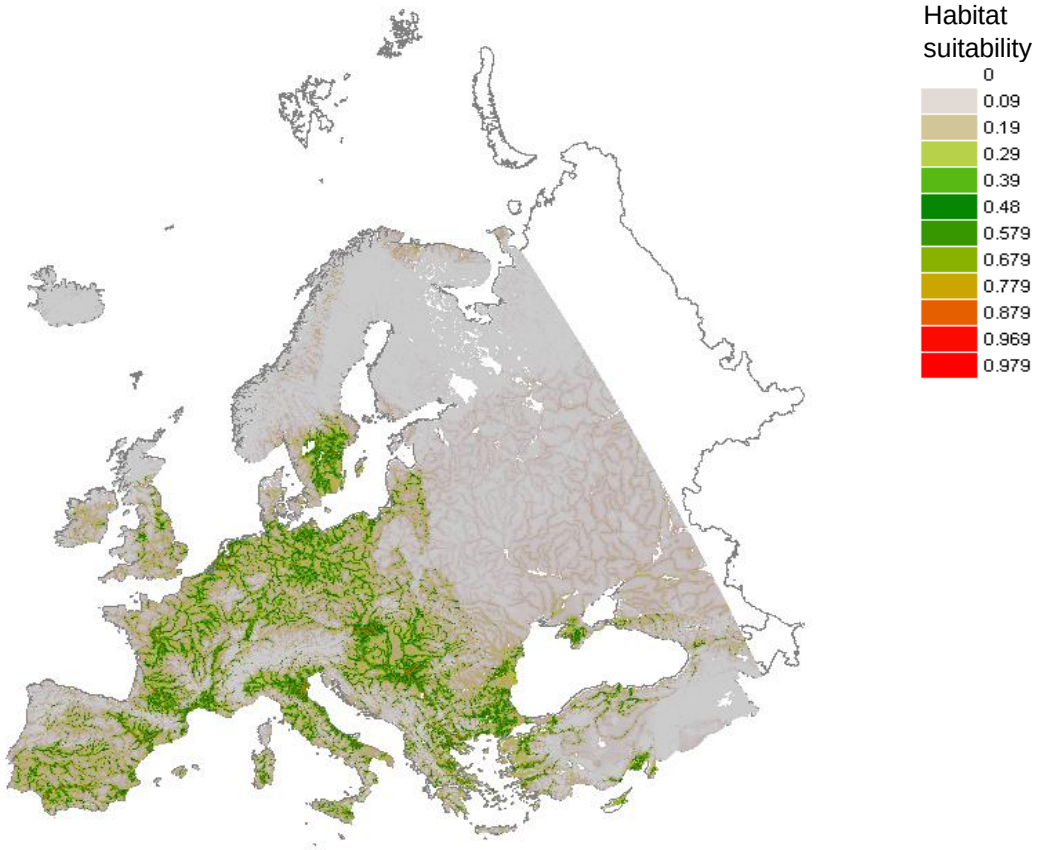
AUC training (0-1)	0.987
AUC test (0-1)	0.9904
Contribution variables to the Maxent model (%)	
Temperature Seasonality (stdev * 100)	39.5222
Solar radiation	31.5583
Mean Temperature of Wettest Quarter	15.8472
Precipitation Seasonality (coef. of var.)	8.5057
Precipitation of Warmest Quarter	1.2786
Annual Precipitation	1.018
Potential Evapotranspiration	0.9996
Distance to water	0.947
Soil pH	0.3234

Comment

Suitable areas in the coastline of temperate and mediterranean climates. Inland predictions reflect climatic similarity but they must be masked to coastal habitats.

G1.1 - Temperate and boreal softwood riparian woodland* [Riparian and gallery woodland, with dominant [Alnus], [Betula], [Populus] or [Salix]]

Distribution based on vegetation relevés



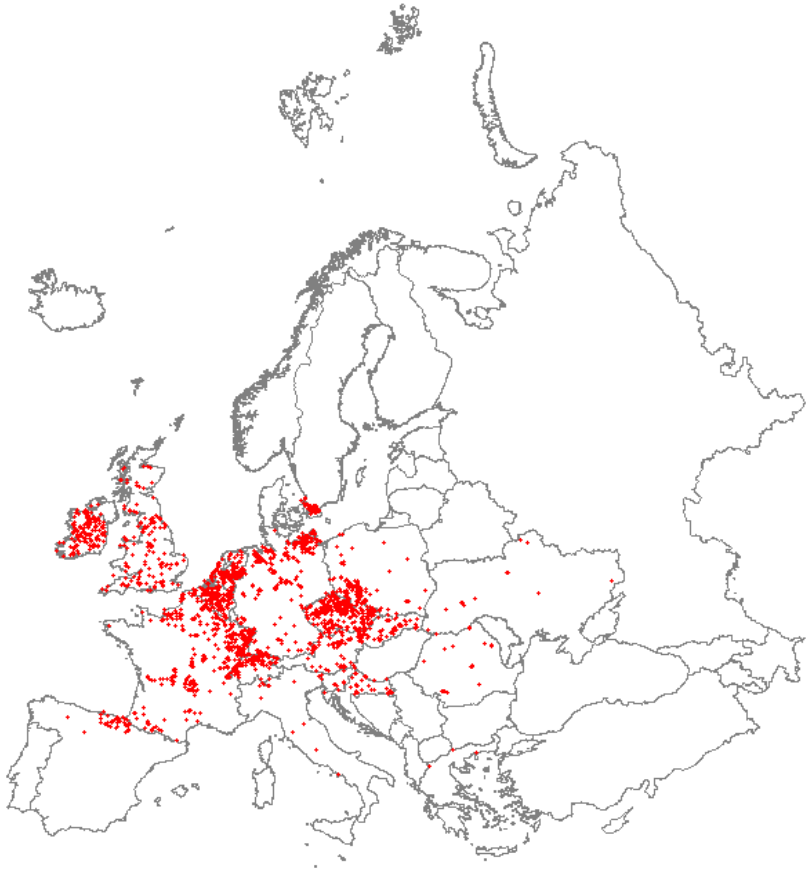
Model prediction. Background data randomly selected from the complete forest data set

Annex 4: Distribution and suitability maps of revised EUNIS forest habitat types

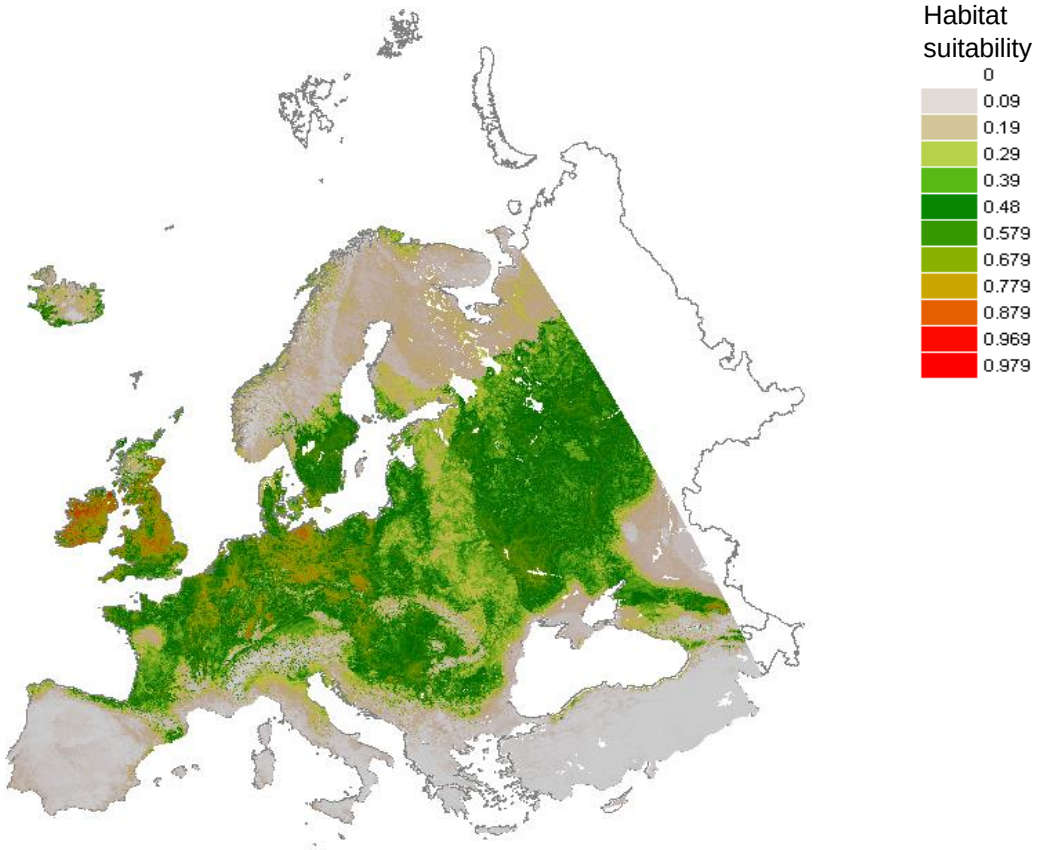
EUNIS classes and number of representing relevés

Type	Subtype	Name	Number of locations	Backgound: Forest	Backgound: Random
B1.7		Coastal dune woodland* [Coastal dune woods]	550		1
G1.1		Temperate and boreal softwood riparian woodland* [Riparian and gallery woodland, with dominant [Alnus], [Betula], [Populus] or [Salix]]	3219	1	
G1.2		Temperate and boreal hardwood riparian woodland* [Mixed riparian floodplain and gallery woodland]	5393	1	
G1.3		Mediterranean and Macaronesian riparian woodland* [Mediterranean riparian woodland]	1377	1	
G1.4		Broadleaved swamp woodland on non-acid peat* [Broadleaved swamp woodland not on acid peat]	3828	1	
G1.5		Broadleaved swamp woodland on acid peat* [Broadleaved swamp woodland on acid peat]	1956	1	
G1.6		[Fagus] woodland could be divided into two types, because of the high variation within the overall type and the possibility to make a clear division:			
	G1.6a	Fagus woodland on non-acid soils	21695		1
	G1.6b	Fagus woodland on acid soils	12981		1
G1.7		Thermophilous deciduous woodland	15196	1	
G1.8		Acidophilous Quercus woodland* [Acidophilous [Quercus]-dominated woodland]	9410		1
G1.9		Non-riverine woodland with [Betula], [Populus tremula] or [Sorbus aucuparia] has to be divided into two types:			
	G1.9a	Mountain Betula and Populus tremula woodlands on mineral soils	162	1	
	G1.9b	Lowland continental Betula and Populus tremula woodlands on mineral soil	No data		
G1.A		Mesotrophic and eutrophic deciduous woodland, not dominated by Fagus* [Meso- and eutrophic [Quercus], [Carpinus], [Fraxinus], [Acer], [Tilia], [Ulmus] and related woodland]	19668	1	
G1.B		Non-riverine Alnus woodland on mineral soil* [Non-riverine [Alnus] woodland]	No data		
G1.C		Broadleaved deciduous plantations of non site-native trees* [Highly artificial broadleaved deciduous forestry plantations]	No data		
G1.D		*Fruit and nut tree orchards is not a woodland and should be removed (it could go into EUNIS group I)*	No data		
G2.1		Mediterranean evergreen Quercus woodland* [Mediterranean evergreen [Quercus] woodland]	6493	1	
G2.2		Mainland lauriphyllous woodland* [Eurasian continental sclerophyllous woodland]	39		0
G2.3		Macaronesian lauriphyllous woodland* [Macaronesian [Laurus] woodland]	No data		
G2.4		Olea oleaster-Ceratonia siliqua woodland* [Olea europaea] - [Ceratonia siliqua] woodland]	856		1
G2.5		Phoenix groves* [[Phoenix] groves]	10		0
G2.6		Ilex aquifolium woodland* [[Ilex aquifolium] woods]	313		1
G2.7		*Macaronesian heathy woodland* [Canary Island heath woodland]*	No data		

G1.2 - Temperate and boreal hardwood riparian woodland* [Mixed riparian floodplain and gallery woodland]



Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the complete forest data set

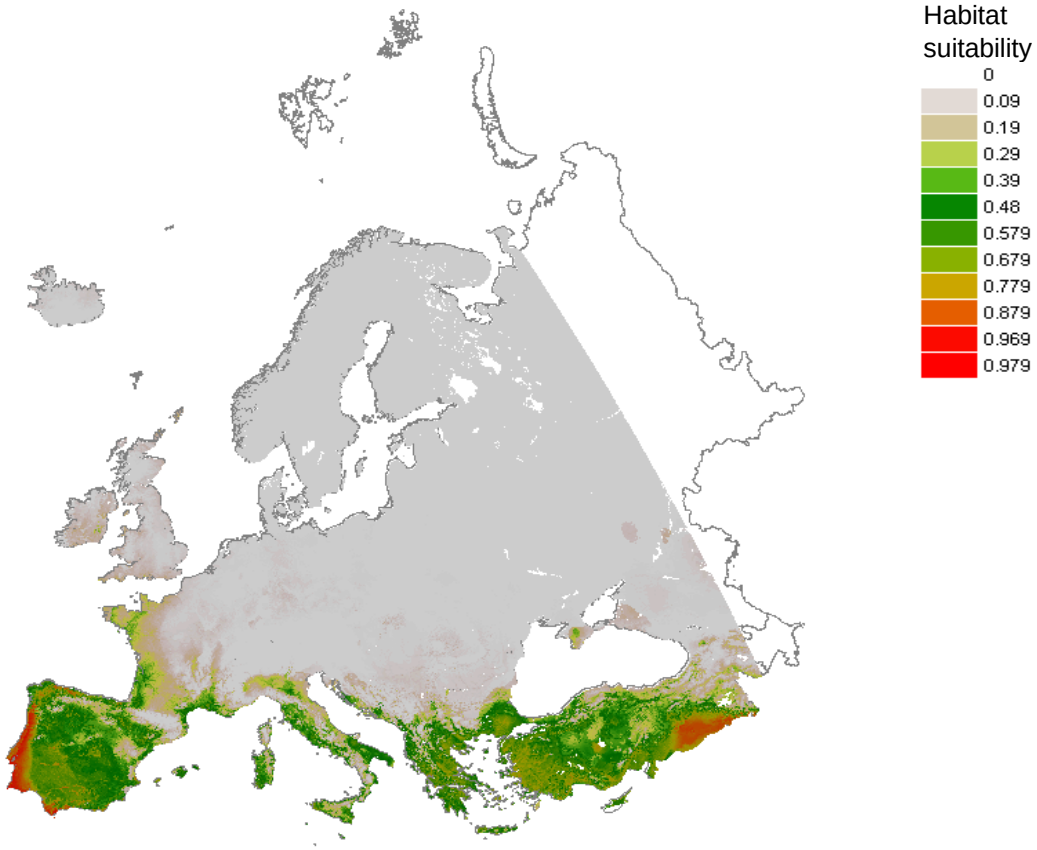
AUC training (0-1)	0.7676
AUC test (0-1)	0.7524
Contribution variables to the Maxent model (%)	
Solar radiation	44.5248
Precipitation of Warmest Quarter	31.0573
Temperature Seasonality (stdev * 100)	5.8461
Mean Temperature of Wettest Quarter	5.4082
Potential Evapotranspiration	5.0005
Annual Precipitation	4.4875
Soil pH	1.7308
Precipitation Seasonality (coef. of var.)	1.0157
Distance to water	0.929

Comment

Suitable areas mainly confined to the Temperate biome, with a possible underprediction in the Boreal zone. The lack of soil moisture variables expands the predictions to non-riparian habitats.

G1.3 - Mediterranean and Macaronesian riparian woodland* [Mediterranean riparian woodland]

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the complete forest data set

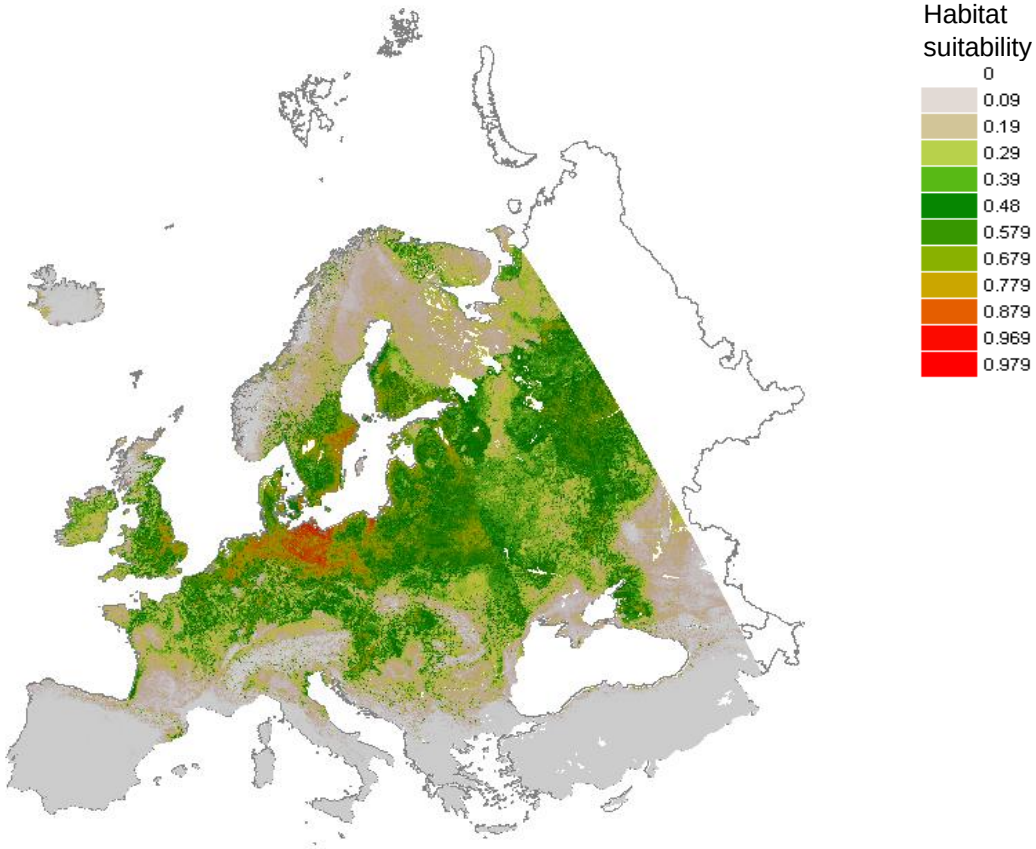
AUC training (0-1)	0.9318
AUC test (0-1)	0.9149
Contribution variables to the Maxent model (%)	
Potential Evapotranspiration	53.4946
Precipitation of Warmest Quarter	28.0611
Temperature Seasonality (stdev * 100)	9.4465
Mean Temperature of Wettest Quarter	3.8968
Precipitation Seasonality (coef. of var.)	2.2413
Solar radiation	1.5617
Soil pH	0.4755
Distance to water	0.4626
Annual Precipitation	0.3599

Comment

Suitable areas mainly confined to the Mediterranean biome. The lack of soil moisture variables expands the predictions to non-riparian habitats.

G1.4 - Broadleaved swamp woodland on non-acid peat* [Broadleaved swamp woodland not on acid peat]

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the complete forest data set

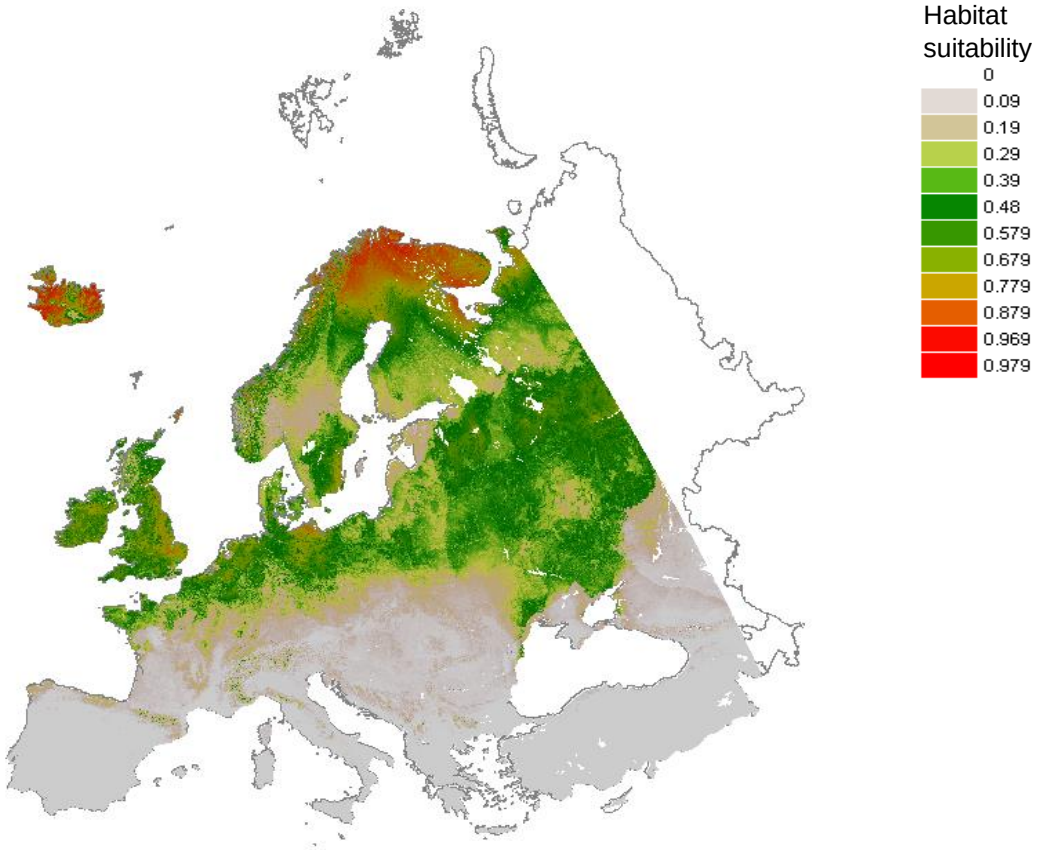
AUC training (0-1)	0.8424
AUC test (0-1)	0.8173
Contribution variables to the Maxent model (%)	
Solar radiation	35.2926
Precipitation of Warmest Quarter	18.6273
Mean Temperature of Wettest Quarter	16.2205
Annual Precipitation	12.3519
Potential Evapotranspiration	9.4265
Soil pH	4.6459
Temperature Seasonality (stdev * 100)	2.535
Precipitation Seasonality (coef. of var.)	0.8557
Distance to water	0.0447

Comment

Suitable areas in the Temperate and Boreal zones, reflecting low solar radiation and high precipitation. The lack of soil moisture variables expands the predictions to non-swamp habitats.

G1.5 - Broadleaved swamp woodland on acid peat* [Broadleaved swamp woodland on acid peat]

Distribution based on vegetation relevés



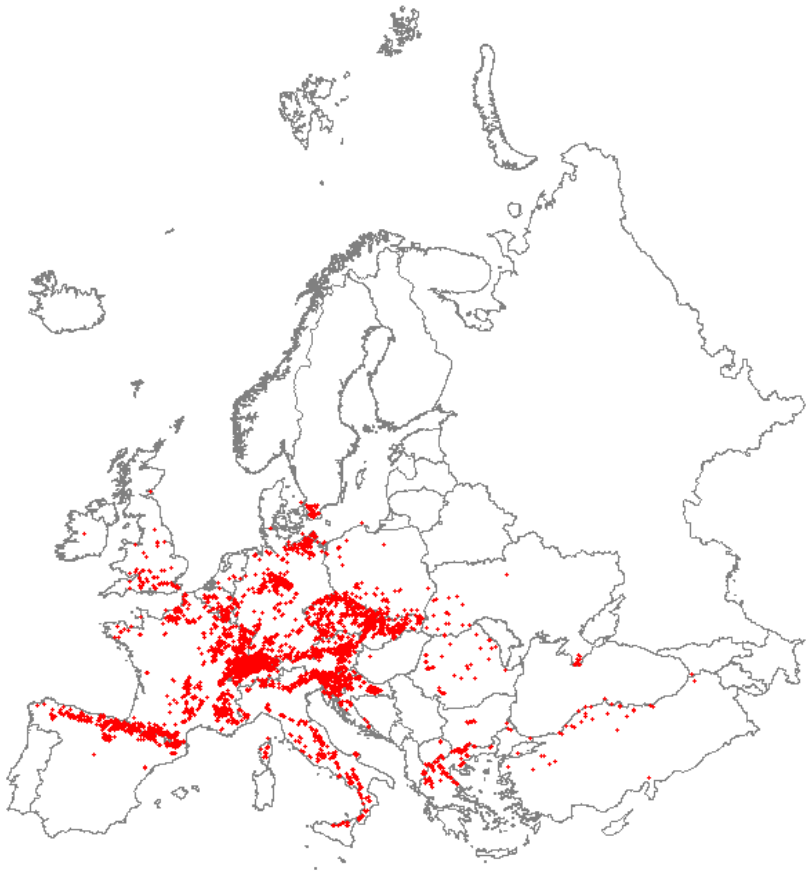
Model prediction. Background data randomly selected from the complete forest data set

AUC training (0-1)	0.8759
AUC test (0-1)	0.855
Contribution variables to the Maxent model (%)	
Potential Evapotranspiration	48.1552
Solar radiation	20.9292
Precipitation of Warmest Quarter	11.3991
Precipitation Seasonality (coef. of var.)	5.7861
Soil pH	4.7057
Temperature Seasonality (stdev * 100)	4.0095
Annual Precipitation	2.9986
Mean Temperature of Wettest Quarter	1.4044
Distance to water	0.6122

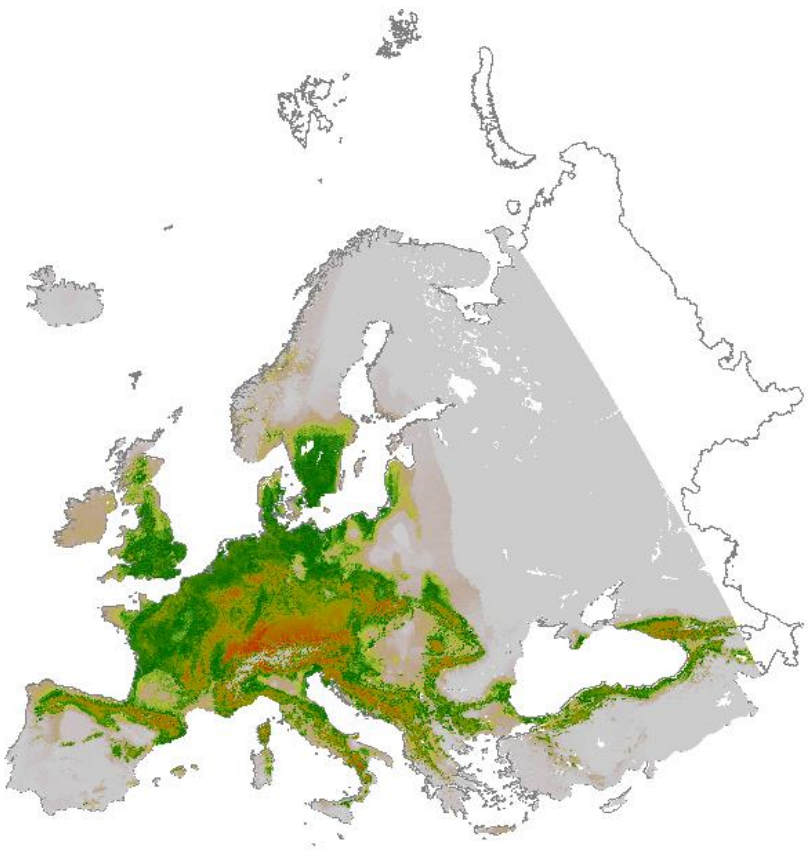
Comment

Suitable areas in the Boreal and North-Temperate zones, reflecting low potential evapotranspiration and low solar radiation. The lack of soil moisture variables expands the predictions to non-swamp habitats.

G1.6a - Fagus woodland on non-acid soils



Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

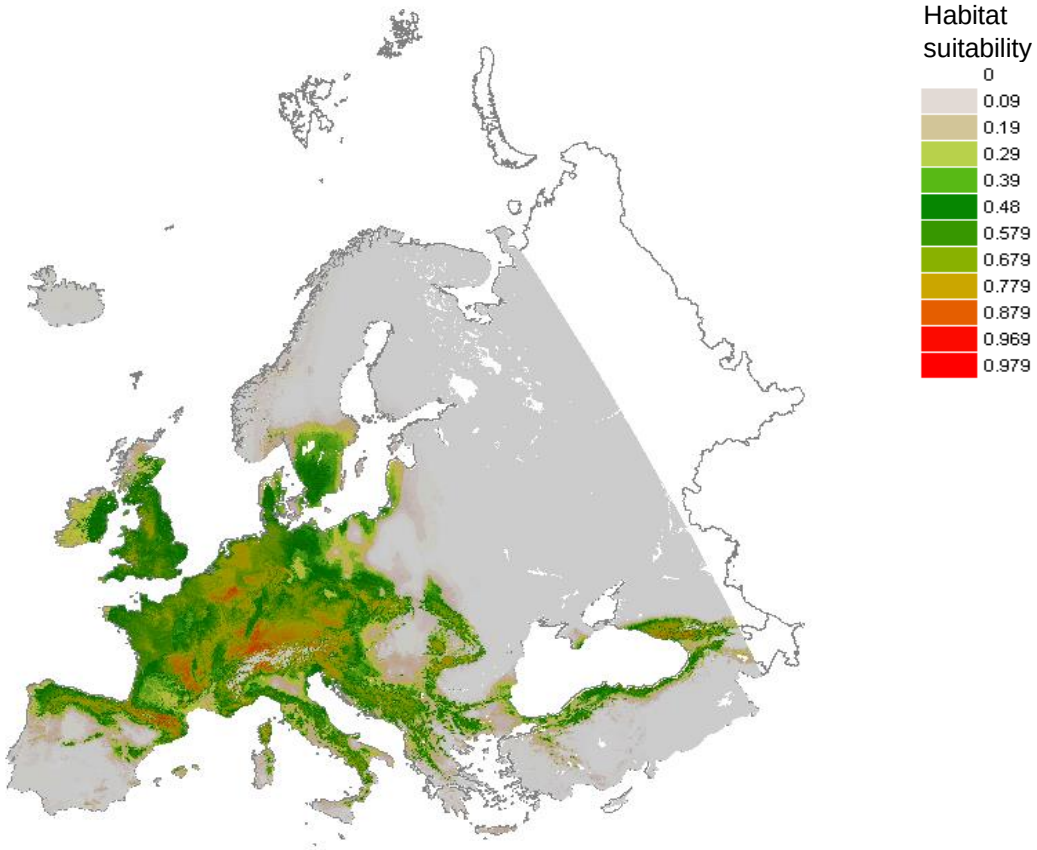
AUC training (0-1)	0.8144
AUC test (0-1)	0.8091
Contribution variables to the Maxent model (%)	
Temperature Seasonality (stdev * 100)	57.2887
Potential Evapotranspiration	25.3307
Annual Precipitation	7.2249
Precipitation of Warmest Quarter	5.0275
Solar radiation	3.3526
Precipitation Seasonality (coef. of var.)	1.3313
Soil pH	0.2365
Mean Temperature of Wettest Quarter	0.1087
Distance to water	0.099

Comment

Suitable areas match the current distribution of Fagus forests in Europe. More accurate predictions for different soil conditions are limited by the lack of fine-resolution explanatory variables

G1.6b - Fagus woodland on acid soils

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

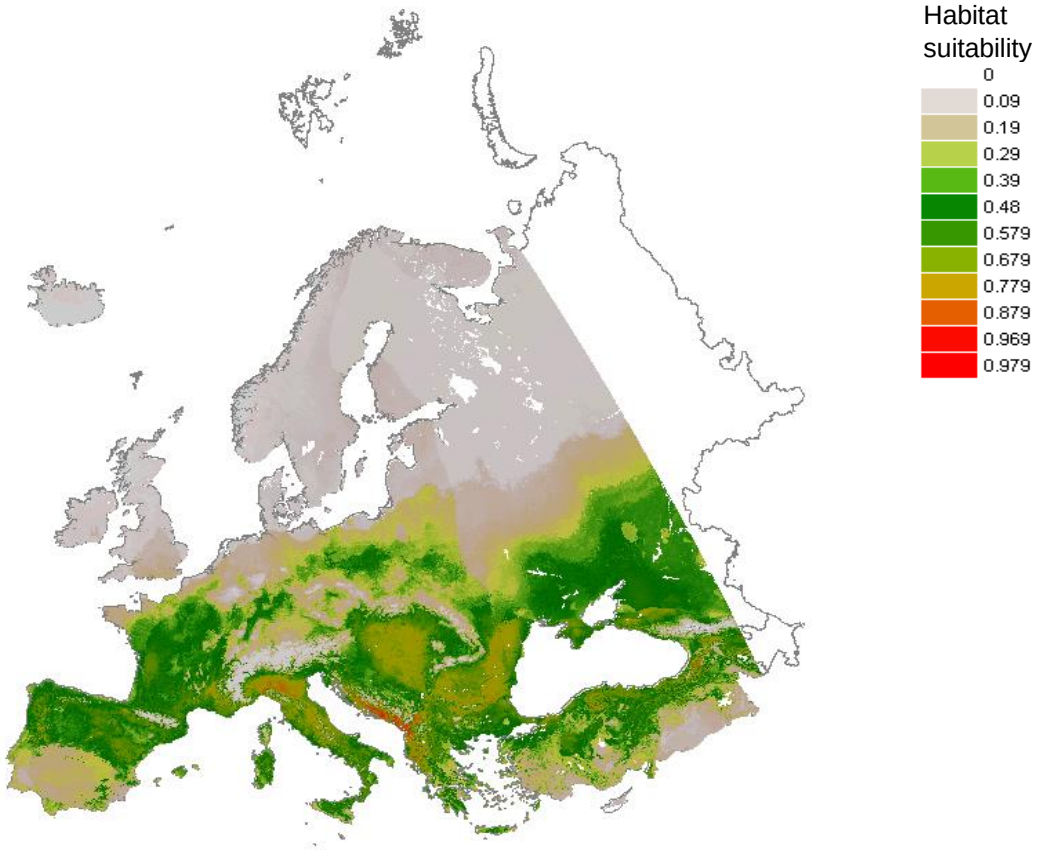
AUC training (0-1)	0.8336
AUC test (0-1)	0.8312
Contribution variables to the Maxent model (%)	
Temperature Seasonality (stdev * 100)	58.7703
Potential Evapotranspiration	22.2968
Annual Precipitation	8.8968
Precipitation of Warmest Quarter	7.0438
Solar radiation	1.4606
Precipitation Seasonality (coef. of var.)	1.1614
Soil pH	0.224
Mean Temperature of Wettest Quarter	0.0876
Distance to water	0.0586

Comment

Suitable areas match the current distribution of Fagus forests in Europe.More accurate predictions for different soil conditions are limited by the lack of fine-resolution explanatory variables

G1.7 - Thermophilous deciduous woodland

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the complete forest data set

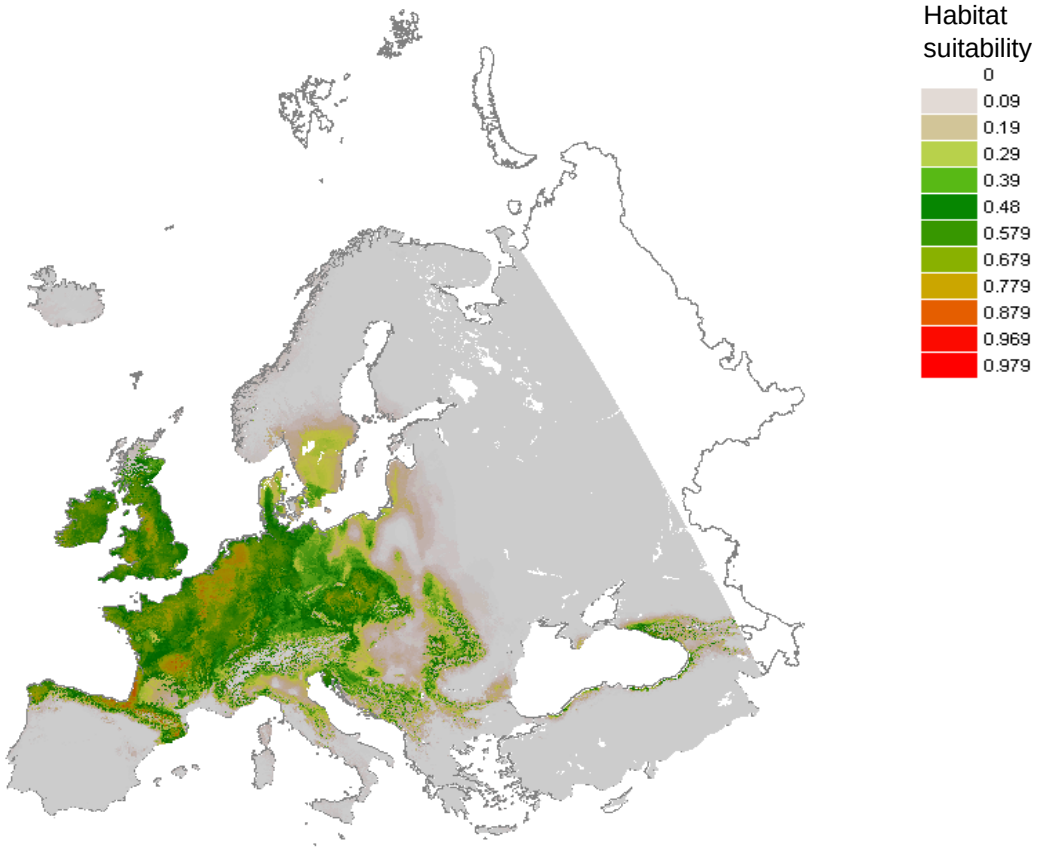
AUC training (0-1)	0.7726
AUC test (0-1)	0.768
Contribution variables to the Maxent model (%)	
Potential Evapotranspiration	75.8512
Precipitation of Warmest Quarter	10.3186
Temperature Seasonality (stdev * 100)	3.8745
Mean Temperature of Wettest Quarter	3.3564
Precipitation Seasonality (coef. of var.)	2.2401
Soil pH	1.5313
Annual Precipitation	1.5267
Solar radiation	0.8308
Distance to water	0.4704

Comment

Suitable areas represented in the southern-Temperate zone, reflecting relatively warm conditions and excluding mountain regions.

G1.8 - Acidophilous Quercus woodland* [Acidophilous [Quercus]-dominated woodland]

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

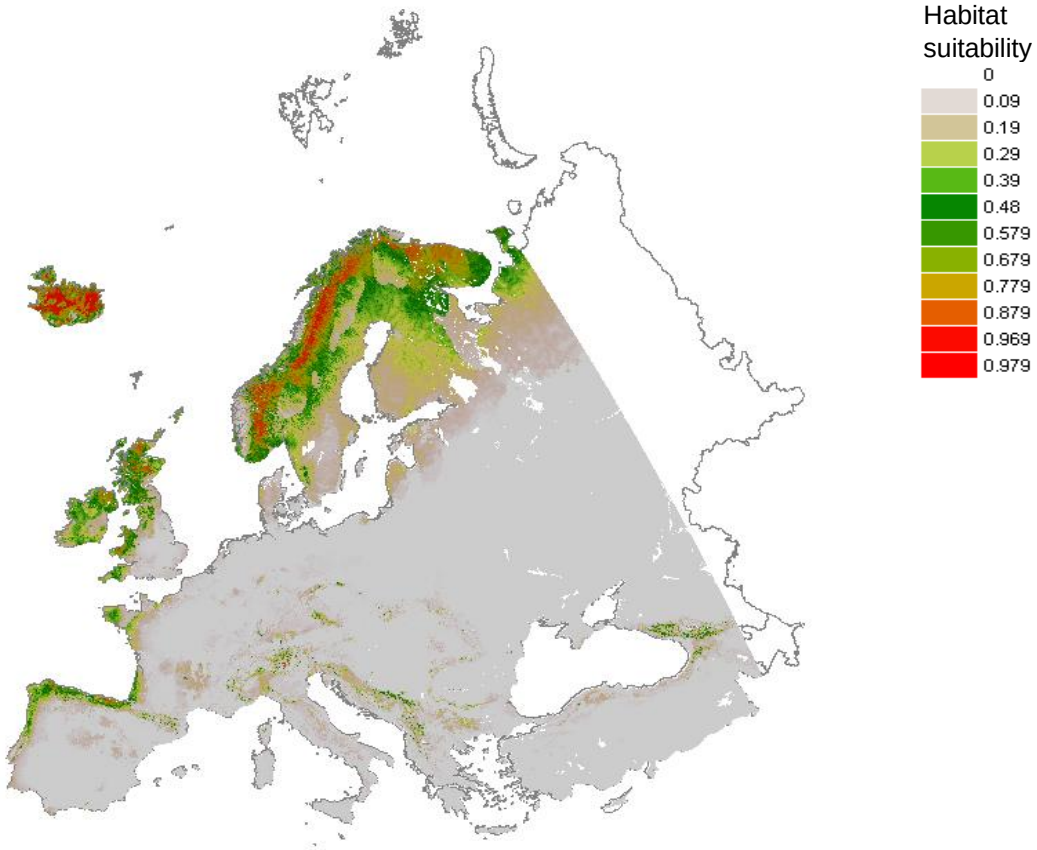
AUC training (0-1)	0.8628
AUC test (0-1)	0.863
Contribution variables to the Maxent model (%)	
Temperature Seasonality (stdev * 100)	58.255
Precipitation of Warmest Quarter	21.5749
Potential Evapotranspiration	14.6326
Solar radiation	2.9419
Precipitation Seasonality (coef. of var.)	1.4857
Soil pH	0.7197
Mean Temperature of Wettest Quarter	0.2729
Annual Precipitation	0.1128
Distance to water	0.0045

Comment

Suitable areas in warm Temperate regions of Western and Central Europe. Possible underprediction for Eastern Europe because of the lack of occurrence data.

G1.9a - Mountain Betula and Populus tremula woodlands on mineral soils

Distribution based on vegetation relevés



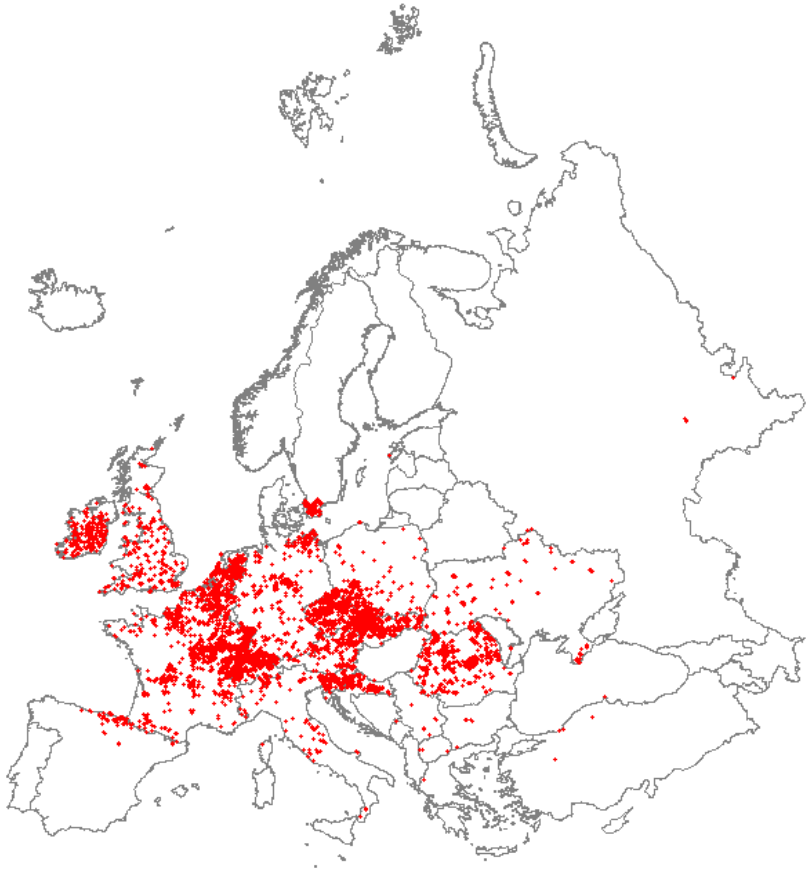
Model prediction. Background data randomly selected from the complete forest data set

AUC training (0-1)	0.9694
AUC test (0-1)	0.9146
Contribution variables to the Maxent model (%)	
Potential Evapotranspiration	25.3501
Temperature Seasonality (stdev * 100)	21.1121
Mean Temperature of Wettest Quarter	15.3974
Precipitation Seasonality (coef. of var.)	9.189
Soil pH	8.7273
Annual Precipitation	8.5167
Precipitation of Warmest Quarter	7.8623
Solar radiation	3.1554
Distance to water	0.6898

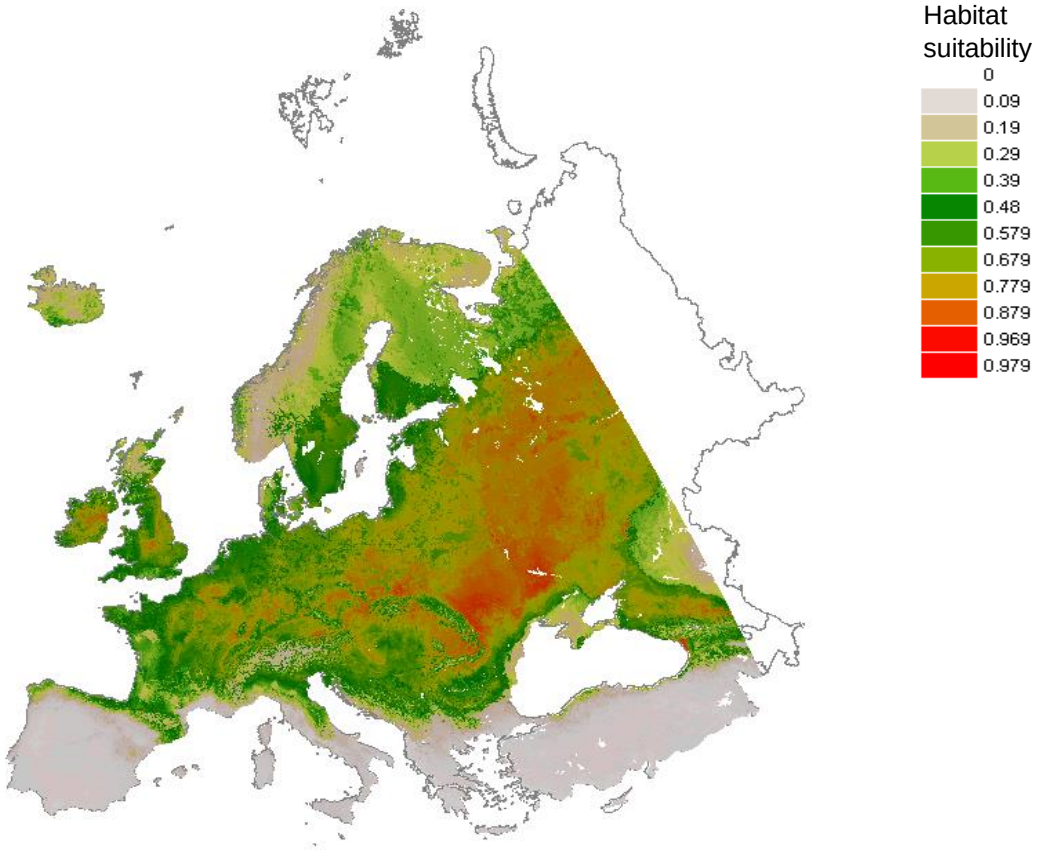
Comment

Suitable areas mainly distributed in Noth-Atlantic regions with low Potential Evapotranspiration and also with low seasonality. Although predictions seem realistic, the low number of occurrences makes necessary to interpret this model with caution.

G1.A - Mesotrophic and eutrophic deciduous woodland, not dominated by Fagus* [Meso- and eutrophic [Quercus], [Carpinus], [Fraxinus], [Acer], [Tilia], [Ulmus] and related



Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the complete forest data set

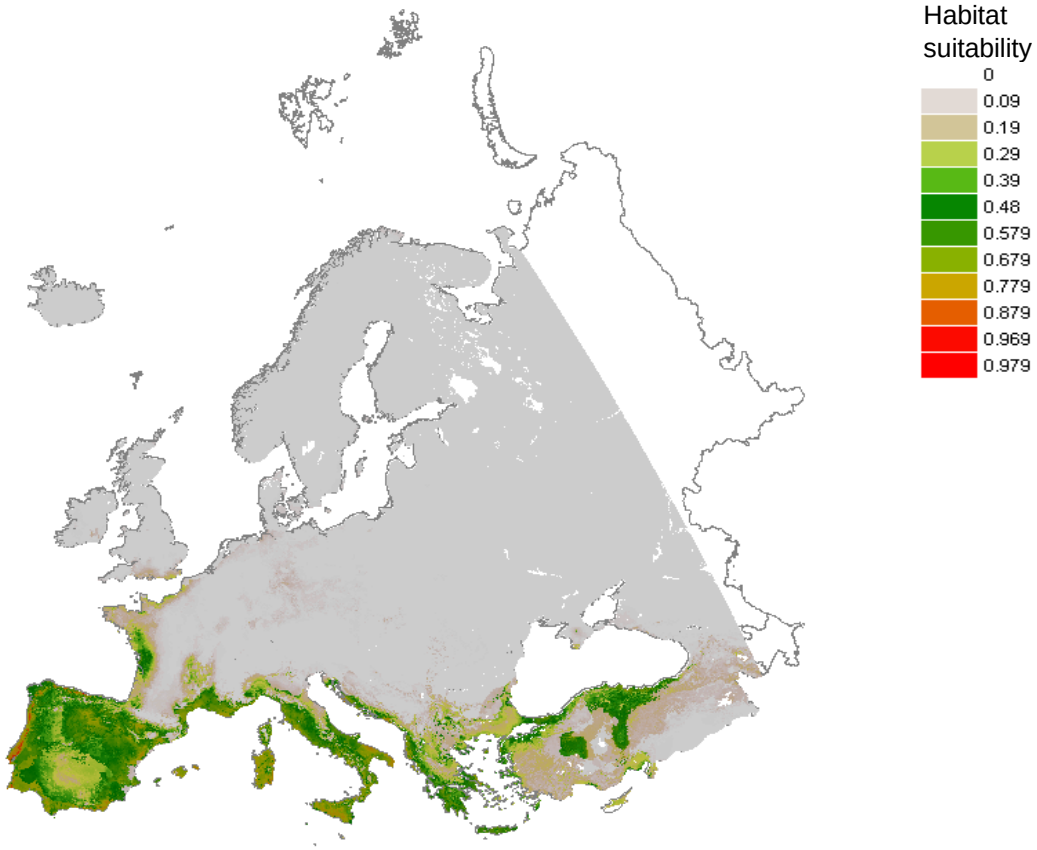
AUC training (0-1)	0.6966
AUC test (0-1)	0.6903
Contribution variables to the Maxent model (%)	
Precipitation of Warmest Quarter	48.869
Solar radiation	13.4084
Mean Temperature of Wettest Quarter	11.6554
Potential Evapotranspiration	7.685
Annual Precipitation	6.7515
Temperature Seasonality (stdev * 100)	6.2496
Precipitation Seasonality (coef. of var.)	2.7453
Soil pH	2.5529
Distance to water	0.0829

Comment

Suitable areas in the Temperate zone and especially in Central and Eastern Europe, reflecting relatively warm climates with high summer precipitation, thus excluding the Mediterranean region.

G2.1 - Mediterranean evergreen Quercus woodland* [Mediterranean evergreen [Quercus] woodland]

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the complete forest data set

AUC training (0-1)	0.9184
AUC test (0-1)	0.9068
Contribution variables to the Maxent model (%)	
Precipitation of Warmest Quarter	58.7016
Potential Evapotranspiration	17.7312
Precipitation Seasonality (coef. of var.)	7.9341
Temperature Seasonality (stdev * 100)	7.5346
Mean Temperature of Wettest Quarter	7.2427
Soil pH	0.4114
Annual Precipitation	0.2254
Distance to water	0.1675
Solar radiation	0.0516

Comment

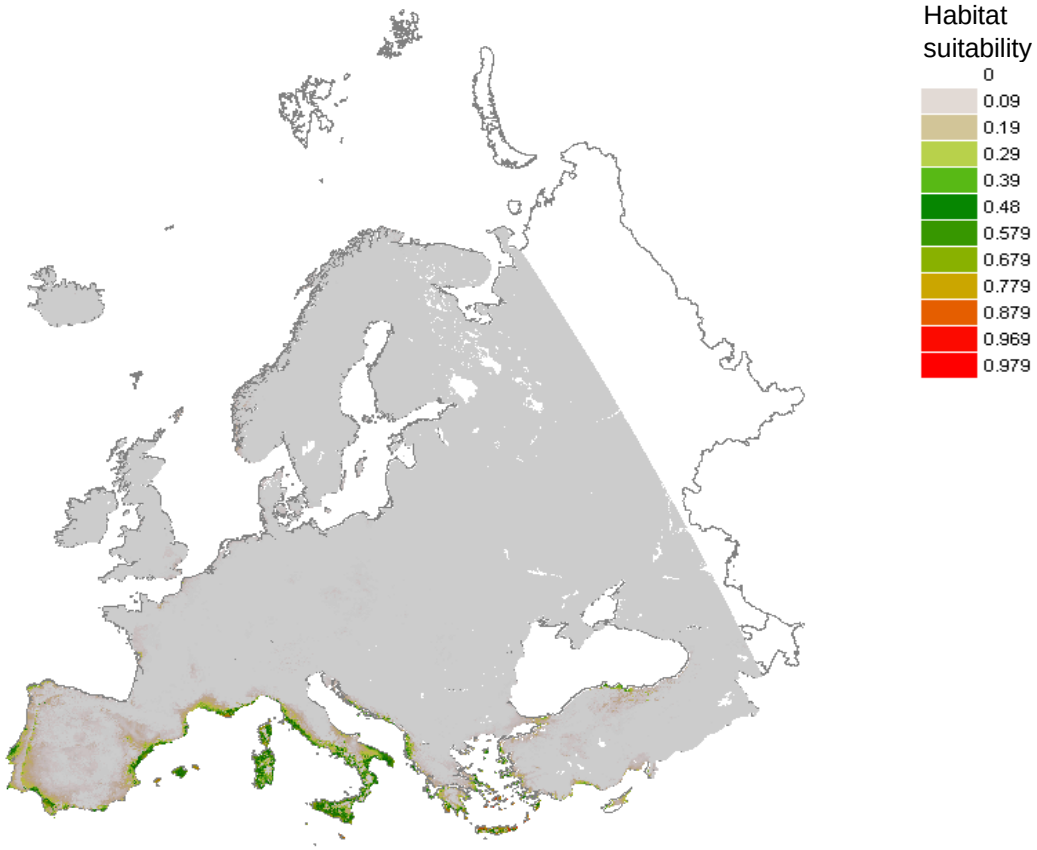
Suitable areas match with the Mediterranean region by reflecting the decrease in summer precipitation. Predictions for France and Turkey fit well with the known distrinution of evergreen Quercus species in submediterranean climates.

G2.2 - Mainland lauriphyllous woodland* [Eurasian continental sclerophyllous woodland]

Comment
Not enough data to create a reliable model.

G2.4 - Olea oleaster-Ceratonia siliqua woodland* [Olea europaea] - [Ceratonia siliqua] woodland]

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

AUC training (0-1)	0.9854
AUC test (0-1)	0.983
Contribution variables to the Maxent model (%)	
Temperature Seasonality (stdev * 100)	38.9364
Precipitation of Warmest Quarter	29.1226
Precipitation Seasonality (coef. of var.)	13.7568
Mean Temperature of Wettest Quarter	8.5614
Potential Evapotranspiration	3.6343
Distance to water	3.2349
Solar radiation	2.3759
Soil pH	0.2087
Annual Precipitation	0.1689

Comment

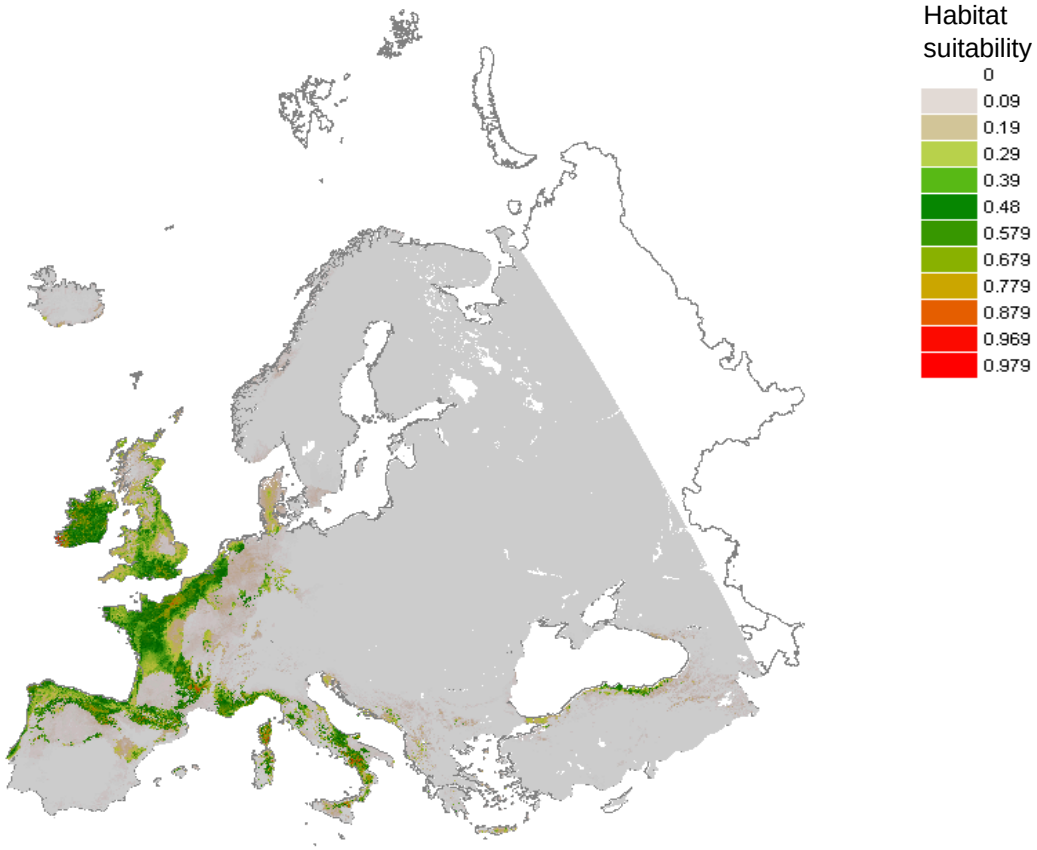
Suitable areas mainly predicted in coastal Mediterranean areas. Predictions for inland regions of Southern Spain and Italy fit well with the known distribution of the habitat.

G2.5 - Phoenix groves* [[Phoenix] groves]

Comment
Not enough data to create a reliable model.

G2.6 - Ilex aquifolium woodland* [[Ilex aquifolium] woods]

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

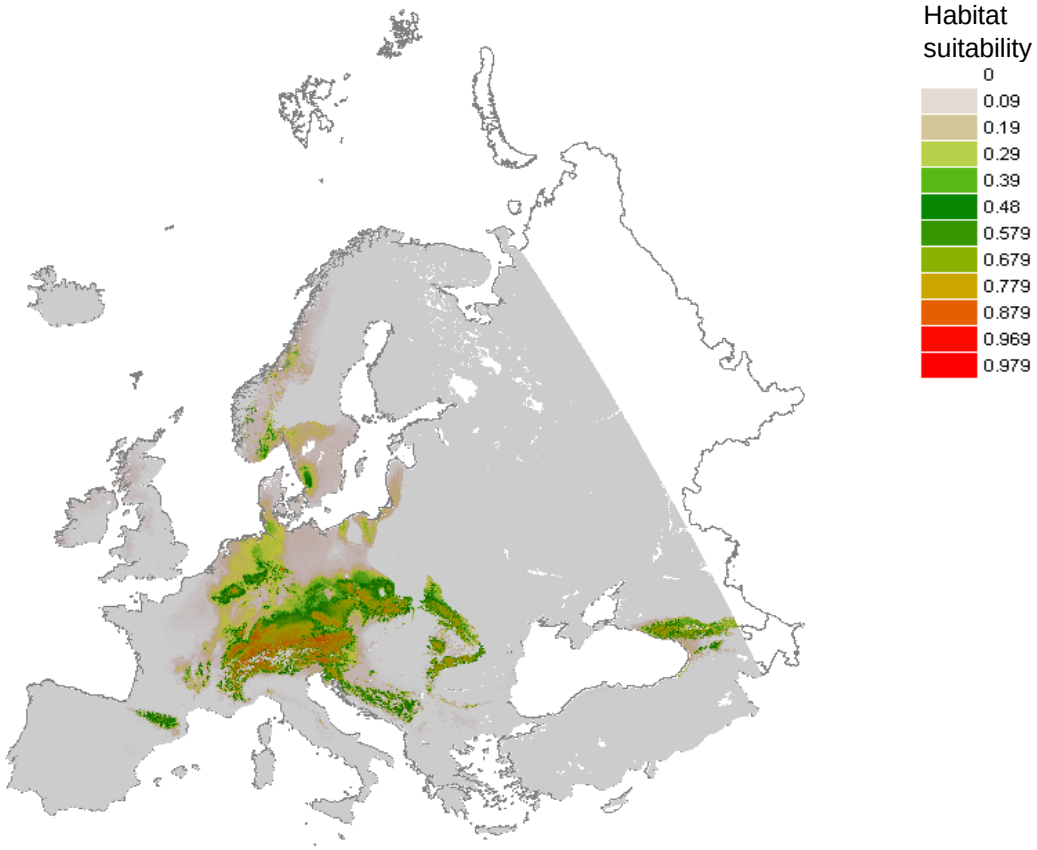
AUC training (0-1)	0.975
AUC test (0-1)	0.9567
Contribution variables to the Maxent model (%)	
Temperature Seasonality (stdev * 100)	57.3421
Potential Evapotranspiration	19.9521
Mean Temperature of Wettest Quarter	14.5124
Precipitation of Warmest Quarter	3.1735
Solar radiation	1.5147
Precipitation Seasonality (coef. of var.)	1.5128
Annual Precipitation	1.481
Soil pH	0.3936
Distance to water	0.1179

Comment

Suitable areas in relatively warm and humid regions without pronounced seasonality. Predictions seem to indicate optimal refugial zones for Ilex aquifolium in Europe.

G3.1a - Temperate mountain Picea woodland

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

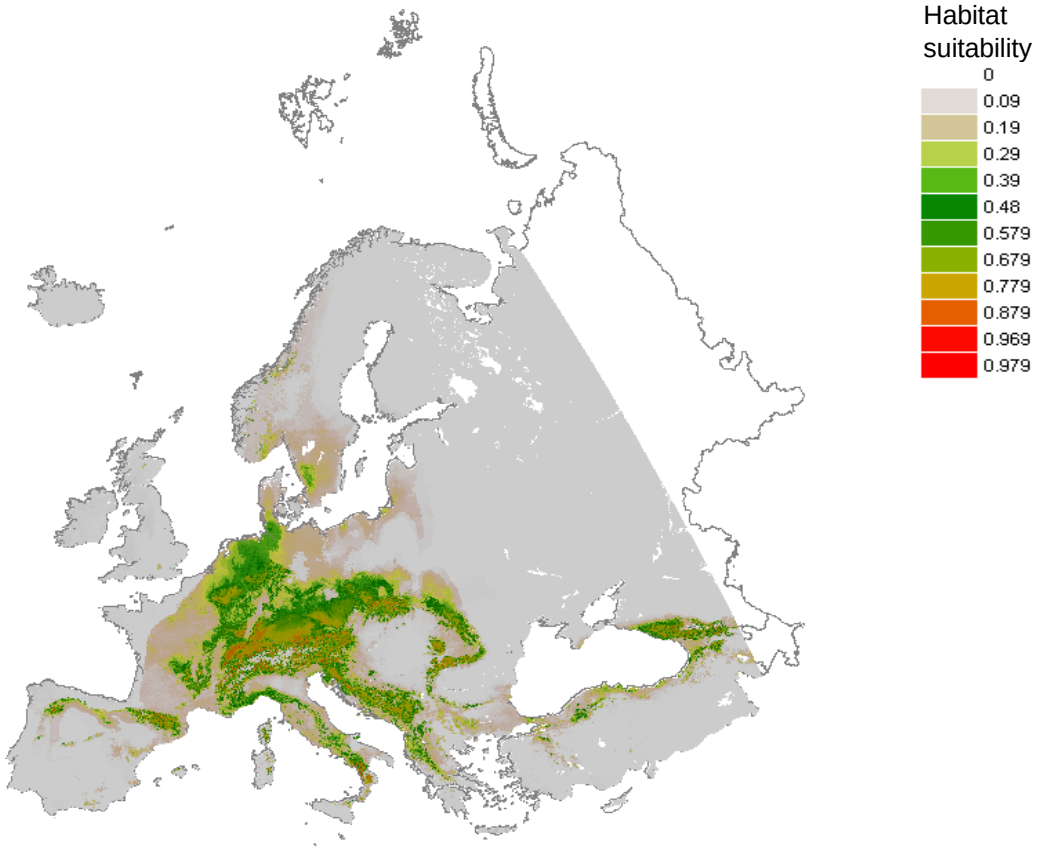
AUC training (0-1)	0.9085
AUC test (0-1)	0.9115
Contribution variables to the Maxent model (%)	
Precipitation of Warmest Quarter	69.6796
Temperature Seasonality (stdev * 100)	19.2195
Potential Evapotranspiration	10.1659
Precipitation Seasonality (coef. of var.)	0.4403
Annual Precipitation	0.2503
Solar radiation	0.1241
Mean Temperature of Wettest Quarter	0.0561
Distance to water	0.0463
Soil pH	0.018

Comment

Suitable areas mainly distributed in continental regions of Central Europe with high summer precipitation. Natural distribution is overestimated in the Pyrenees and Central France due to occurrence data from plantations, but in any case these regons are climatically suitable.

G3.1b - Temperate mountain Abies woodland

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

AUC training (0-1)	0.9028
AUC test (0-1)	0.9051
Contribution variables to the Maxent model (%)	
Temperature Seasonality (stdev * 100)	34.5811
Precipitation of Warmest Quarter	31.3979
Potential Evapotranspiration	15.594
Annual Precipitation	14.8453
Solar radiation	2.0337
Precipitation Seasonality (coef. of var.)	1.027
Mean Temperature of Wettest Quarter	0.3405
Distance to water	0.1393
Soil pH	0.0413

Comment

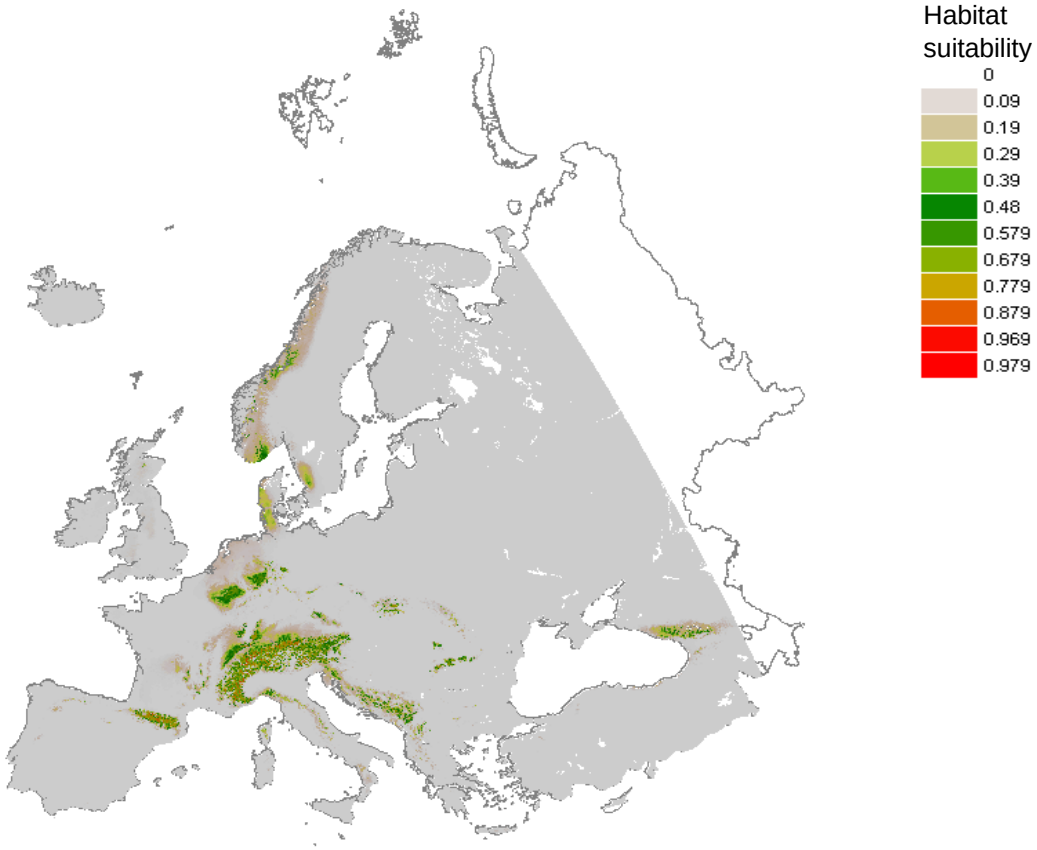
Suitable areas mainly distributed in the European Mountain System and lowlands of Central Europe, reflecting relatively continental climates with high summer precipitation.

G3.1c - Mediterranean mountain Abies woodland

Comment
Not enough data to create a reliable model.

G3.2 - Temperate subalpine Larix-Pinus woodland* [Alpine [Larix] - [Pinus cembra] woodland]

Distribution based on vegetation relevés



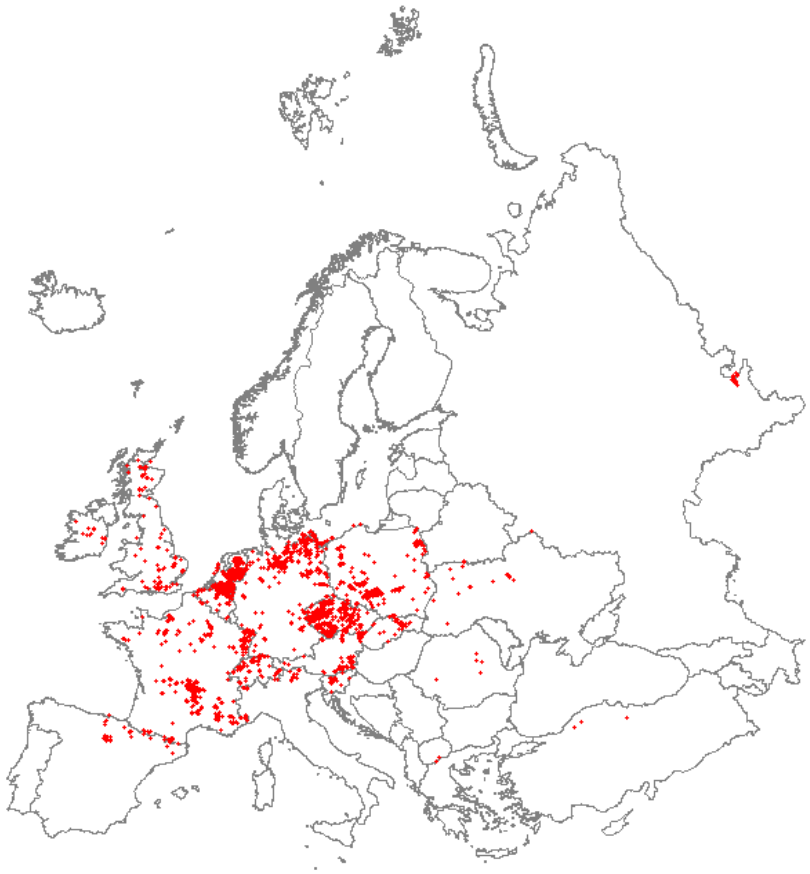
Model prediction. Background data randomly selected from the study area

AUC training (0-1)	0.9679
AUC test (0-1)	0.9613
Contribution variables to the Maxent model (%)	
Annual Precipitation	58.0386
Temperature Seasonality (stdev * 100)	18.8005
Potential Evapotranspiration	15.6623
Precipitation of Warmest Quarter	5.9122
Precipitation Seasonality (coef. of var.)	0.6514
Distance to water	0.4643
Solar radiation	0.2095
Soil pH	0.1338
Mean Temperature of Wettest Quarter	0.1274

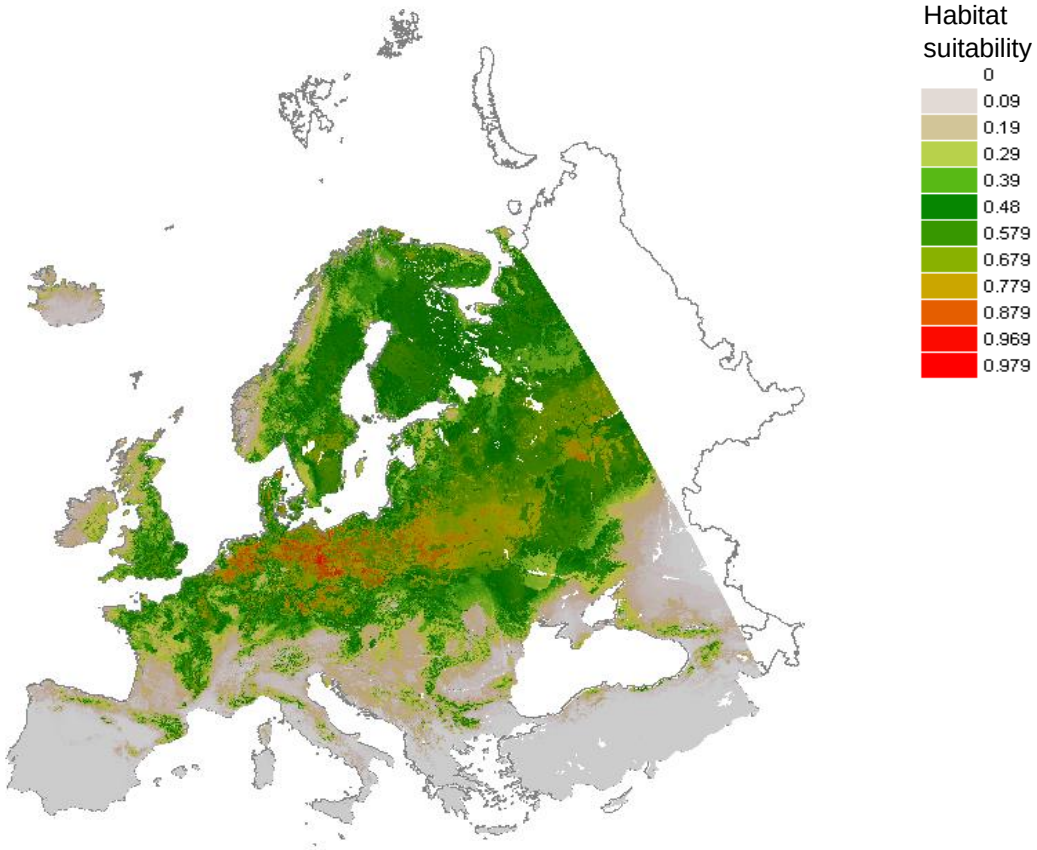
Comment

Suitable areas mainly represented in the highest altitudes of the Alps and nearby mountains. Overpredictions in the Pyrenees and Scandinavia (where this particular habitat does not occur) reflect climatic similarities rather than present distribution.

G3.4a - Temperate continental Pinus sylvestris woodland



Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the complete forest data set

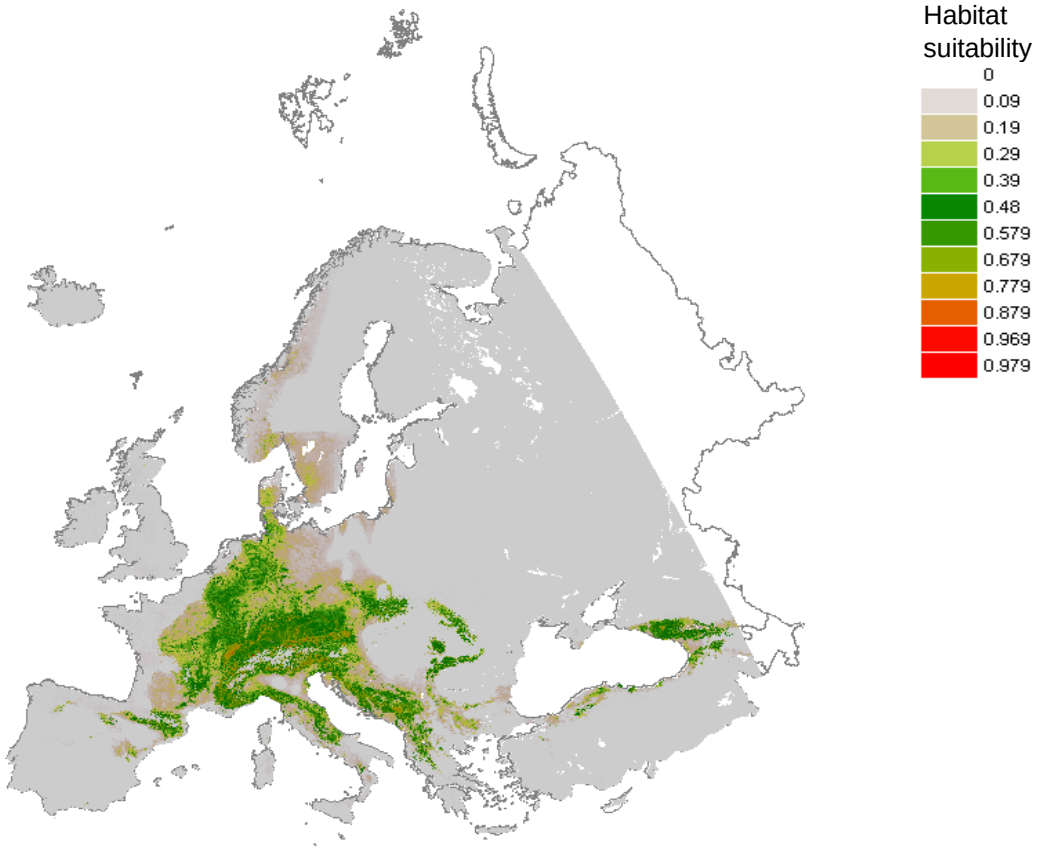
AUC training (0-1)	0.8068
AUC test (0-1)	0.7929
Contribution variables to the Maxent model (%)	
Potential Evapotranspiration	23.9712
Annual Precipitation	21.6615
Soil pH	16.9529
Mean Temperature of Wettest Quarter	15.5528
Precipitation of Warmest Quarter	13.583
Temperature Seasonality (stdev * 100)	4.9024
Precipitation Seasonality (coef. of var.)	1.8676
Solar radiation	1.3987
Distance to water	0.11

Comment

Most suitable areas are represented in the transition between temperate and boreal regions, matching with the known distribution of Pinus sylvestris. Predictions for southern Europe and Scandinavia are realistic in terms of climatic conditions but they are probably overestimating the current distribution of this particular habitat.

G3.4b - Temperate and submediterranean montane Pinus sylvestris-nigra woodland

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

AUC training (0-1)	0.9407
AUC test (0-1)	0.9227
Contribution variables to the Maxent model (%)	
Temperature Seasonality (stdev * 100)	43.4162
Annual Precipitation	22.076
Precipitation of Warmest Quarter	12.9617
Potential Evapotranspiration	11.6566
Soil pH	5.7035
Distance to water	2.2883
Solar radiation	1.2367
Precipitation Seasonality (coef. of var.)	0.5145
Mean Temperature of Wettest Quarter	0.1465

Comment

Suitable areas mainly representing the European Mountain System and nearby regions of Central Europe. Best predictions are expected for those regions with a submediterranean influence.

G3.4c - Mediterranean montane Pinus sylvestris-nigra woodland

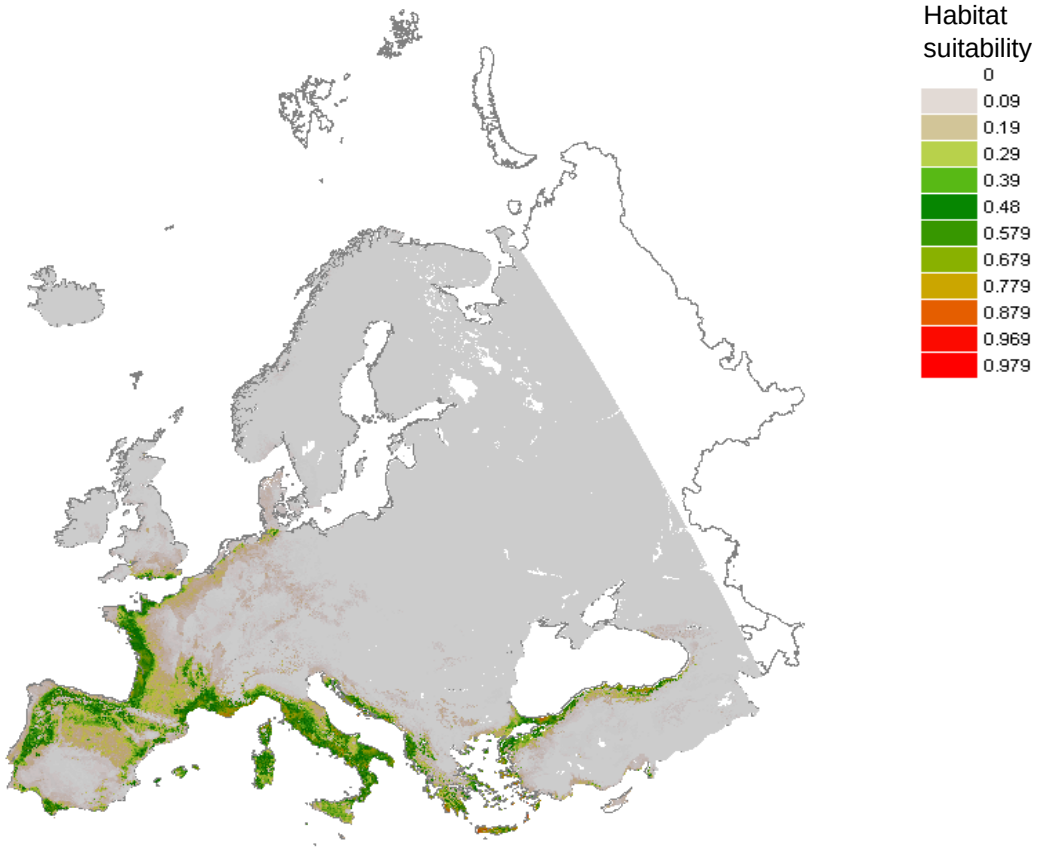
Comment
Not enough data to create a reliable model.

G3.6 - Mediterranean and Balkan subalpine Pinus heldreichii-peucis woodland* [balpine

Comment
Not enough data to create a reliable model.

G3.7 - Mediterranean lowland to submontane Pinus woodland* [Lowland to montane mediterranean [Pinus] woodland (excluding [Pinus nigra])]

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

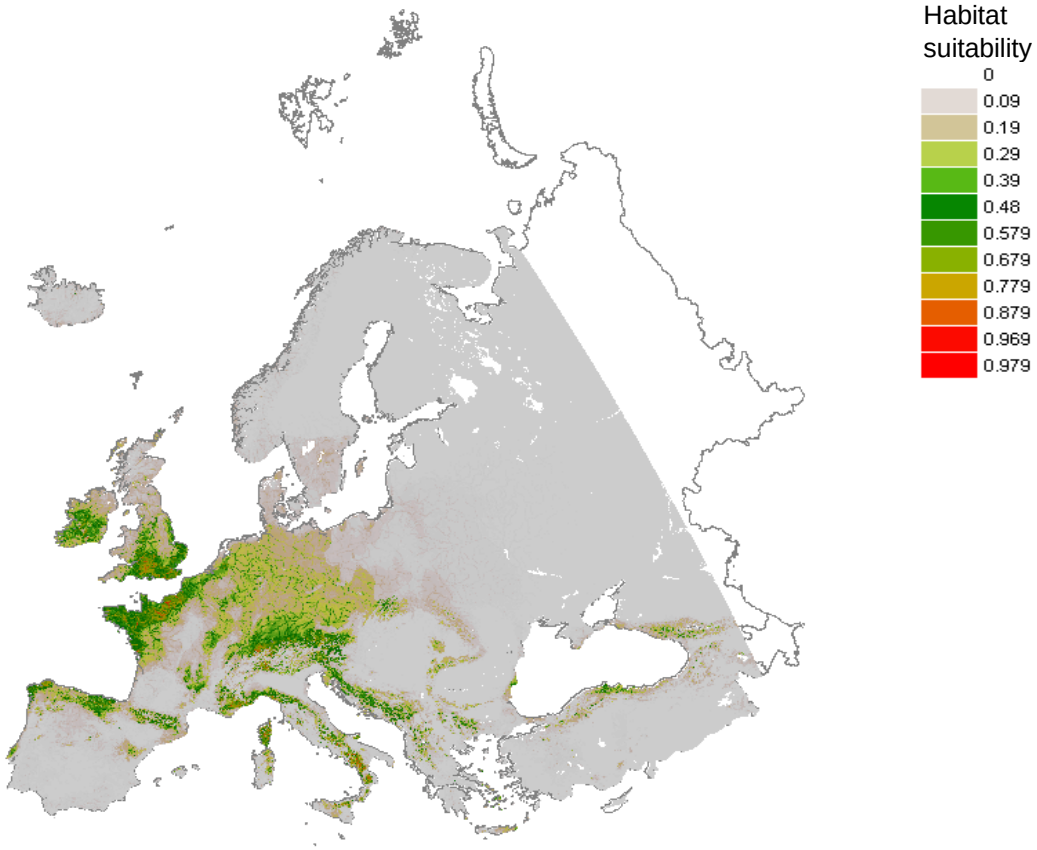
AUC training (0-1)	0.9617
AUC test (0-1)	0.957
Contribution variables to the Maxent model (%)	
Temperature Seasonality (stdev * 100)	50.976
Potential Evapotranspiration	17.4106
Mean Temperature of Wettest Quarter	12.802
Precipitation of Warmest Quarter	5.8938
Precipitation Seasonality (coef. of var.)	4.7735
Annual Precipitation	3.8205
Distance to water	2.7684
Solar radiation	0.9681
Soil pH	0.5871

Comment

Suitable areas mainly represented in warm regions with low seasonality of the Mediterranean basin. More accurate predictions within the suitable areas would require high-resolution layers to reflect soil conditions.

G3.9a - Taxus baccata woodland

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

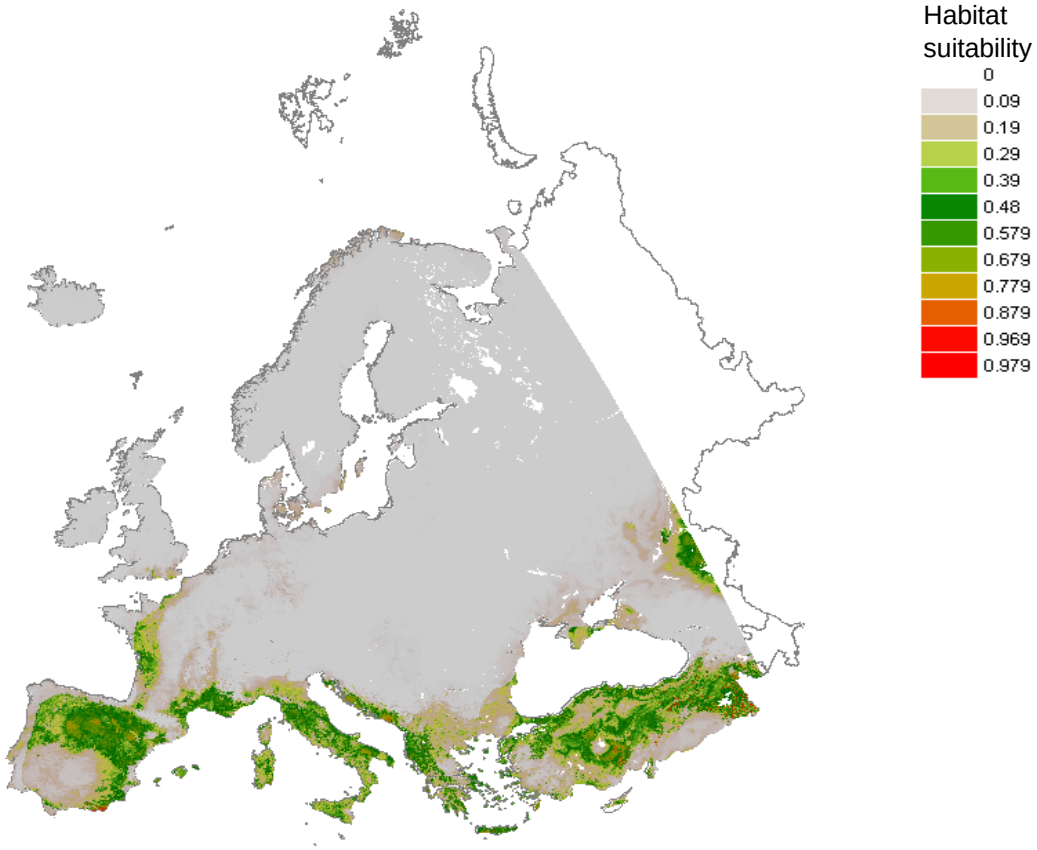
AUC training (0-1)	0.9576
AUC test (0-1)	0.964
Contribution variables to the Maxent model (%)	
Temperature Seasonality (stdev * 100)	43.4382
Potential Evapotranspiration	34.4928
Precipitation of Warmest Quarter	6.4517
Mean Temperature of Wettest Quarter	4.5974
Distance to water	3.3867
Precipitation Seasonality (coef. of var.)	2.9875
Solar radiation	2.5543
Soil pH	1.1712
Annual Precipitation	0.9202

Comment

Sutiable areas are mainly represented in the Southern mountains and the Atlantic region. Given the complex historical biogeography of Taxus baccata, predictions are probably reflecting refugial areas together with climatic optima.

G3.9b - Mediterranean Cupressaceae woodland

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the complete forest data set

AUC training (0-1)	0.938
AUC test (0-1)	0.9235
Contribution variables to the Maxent model (%)	
Precipitation of Warmest Quarter	59.8598
Potential Evapotranspiration	12.6501
Mean Temperature of Wettest Quarter	6.6394
Soil pH	4.9473
Distance to water	4.6239
Precipitation Seasonality (coef. of var.)	4.5698
Temperature Seasonality (stdev * 100)	3.0765
Solar radiation	1.9085
Annual Precipitation	1.7246

Comment

Suitable areas restricted to Mediterranean regions with dry and continental climates, reflecting well the distribution of the habitat. Within each region, occurrence is related to specific species and soil factors not considered here.

G3.A - Picea taiga woodland* [[Picea] taiga woodland]

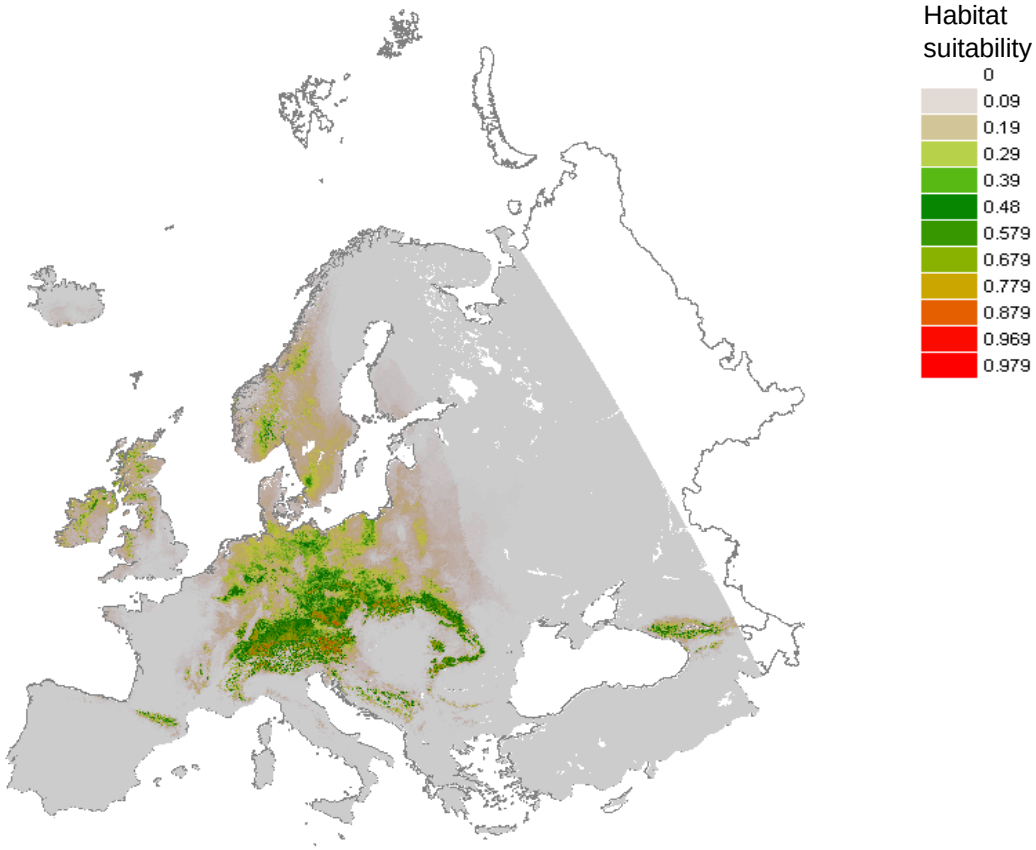
Comment
Not enough data to create a reliable model.

G3.B - Pinus sylvestris taiga woodland* [[Pinus] taiga woodland]

Comment
Not enough data to create a reliable model.

G3.E - Temperate bog conifer woodland* [Nemoral bog conifer woodland]

Distribution based on vegetation relevés



Model prediction. Background data randomly selected from the study area

AUC training (0-1)	0.952
AUC test (0-1)	0.9356
Contribution variables to the Maxent model (%)	
Precipitation of Warmest Quarter	54.2453
Temperature Seasonality (stdev * 100)	17.9736
Potential Evapotranspiration	15.7111
Mean Temperature of Wettest Quarter	6.9313
Solar radiation	1.915
Soil pH	1.4725
Precipitation Seasonality (coef. of var.)	0.9937
Annual Precipitation	0.6425
Distance to water	0.1149

Comment

Suitable areas are distributed in Central European regions with high summer precipitation, reflecting well the known distribution of the habitat. Local distribution is probably limited to soil conditions not considered here.