Natural assemblage tree species indicator 2006 dataset, Nov. 2017

The natural assemblage species indicator dataset is a forest dataset that measures the congruency between the potential and current tree species distribution. The natural assemblage indicator is considered one of the key indicator for the identification of High Nature Value forest area in Europe. The reference year for this data set is 2006 and the spatial coverage is including the 28 EU Member States, Liechtenstein, Norway, Switzerland, and Türkiye.

The methodological approach is based on two data sources: (1) EUNIS woodland, forest and other wooded land habitats, predicted potential distribution of habitat suitability –EEA- as potential distribution; (2) Relative probability of presence of forest tree species (RPP) of European Atlas of Forest Tree Species –JRC- as current distribution

The dataset values express, in the fuzzy values between 0 and 1, the percentage of tree species vegetation agreed with potentially dominant tree species by pixels. This measure is independent of the current forest coverage. The values close to 1 mean high percentage of native tree species (natural) whereas values close to 0 are an approximation of a low level of naturalness, being a high percentage of non-native species.

Simple

Date (Publication)	2017-11-30
Date (Creation)	2017-11-30
Edition	01.00
Citation identifier	eea_r_3035_1_km_forest-assemblage-sps_p_2006_v01_r00
Citation identifier	DAT-220-en
Point of contact	

Organisation name	Individual name	Electronic mail address	Website	Role
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	Not planned
GEMET - INSPIRE themes, version 1.0	• Habitats and biotopes • Species distribution
Keywords	
Keywords	
GEMET	• environmental indicator • forest conservation • forest policy • forest • indigenous forest • forest ecosystem

	• primary forest
	• conservation
Continents, countries, sea regions of the world.	• EU28 (2013-2020) • Liechtenstein • Türkiye • Norway • Switzerland
[Spatial scope](#)	• [European](#)
EEA Management Plan	• 2019 1.7.8
EEA topics	• Forests and forestry • Biodiversity
Access constraints	Other restrictions
Other constraints	[no limitations to public access](#)
Use constraints	Other restrictions
Other constraints	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).
Spatial representation type	Grid
Distance	1 km
Language of dataset	English
Topic category	• Environment

	N		S		E		W

Begin date	2006-01-01
End date	2006-12-31
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_forest-assemblage-sps_p_2006_v01_r00/eea_r_3035_1_km_forest-assemblage-sps_p_2006_v01_r00.tif	
	WWW:URL	https://sdi.eea.europa.eu/data/1f598e5a-66af-4981-970d-28b1f0c29648	Direct download
	ESRI:REST	https://forest.discomap.eea.europa.eu/arcgis/rest/services/Forest/Natural_assemblage_indicator/MapServer	
	OGC:WMS	https://forest.discomap.eea.europa.eu/arcgis/services/Forest/Natural_assemblage_indicator/MapServer/WMSServer?request=GetCapabilities&service=WMS	0

Hierarchy level	Dataset

Conformance result

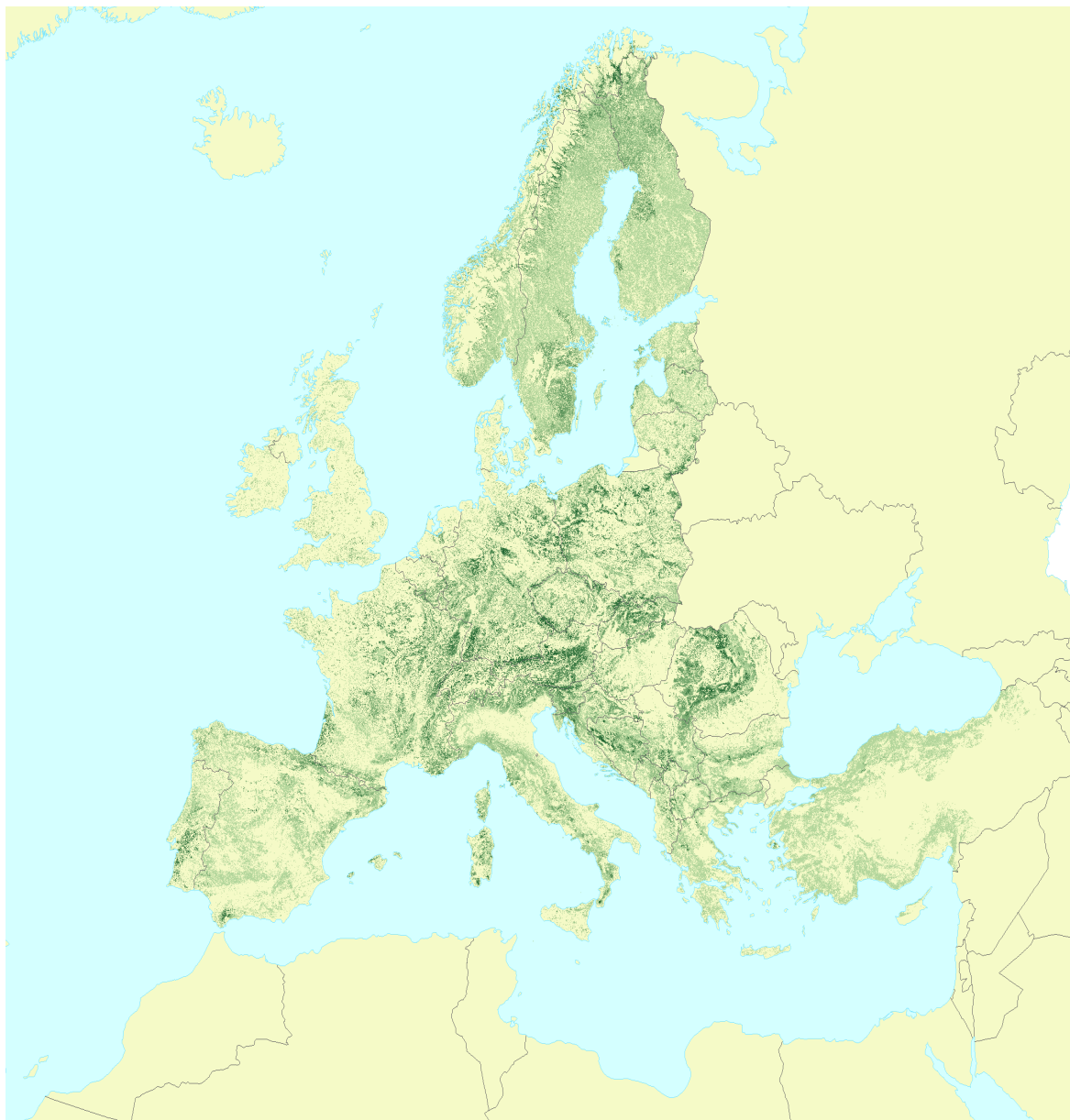| Title	Commission Regulation (EU) No 1089/2010 of 23 November 2010 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services
Date (Publication)	2010-12-08
Explanation	See the referenced specification
Statement	The natural assemblage species indicator is a proxy for measuring the congruency between the potential and current tree species distribution. The data sources are: (1) EUNIS woodland, forest and other wooded land habitats, predicted potential distribution of habitat suitability –EEA- as potential distribution. (2) Relative probability of presence of forest tree species (RPP) of European Atlas of Forest Tree Species –JRC- as current distribution.

The EUNIS dataset provides information about forest habitats and EU tree atlas about tree species indicator. In order to get and harmonized unit of mapping the tree species datasets have been grouping according to the dominant species by each EUNIS habitat types by a cross relation table.

The natural assemblage species indicator requires information about the habitat suitability distribution. For this purpose, the EUNIS habitats distribution maps have to be converted into Boolean data showing value = 0 where the area is not suitable and value =1 where the area is suitable for a particular habitat. The EUNIS fuzzy values where converted to Boolean maps using as thresholds defined by the percentile 25 of the statistical distribution of the relevés points linking to the EUNIS habitats suitability raster.

In order to assess the congruency of current vegetation with the potential distribution of forest types we developed the following index

Fractional congruency of forest species composition=(CP)i

Where i are the EUNIS forest habitats, C represents the current fractional area cover of dominant assemblage tree species according to the JRC maps and expressed in the fuzzy values between 0 and 1 and P is the presence of the i-th EUNIS habitats in the potential vegetation expressed with a Boolean value of 0 (absence) or 1 (presence).

As is show in the next figure, the Natural assemblage species indicator is an overlapping indicator of the individual Natural assemblage species index layers (one per EUNIS habitats). Due to, according to the potential distribution maps, one cell could be potentially suitable for several EUNIS habitats types, in the overlapping cells, the output cell is the maximum value of input cells

The dataset values express, in the fuzzy values between 0 and 1, the percentage of tree species vegetation agreed with potentially dominant tree species by pixels. This measure is independent of the current forest coverage. The values close to 1 mean high percentage of native tree species (natural) whereas values close to 0 are an approximation of a low level of naturalness, being a high percentage of non-native species.

Source	
	• [EUNIS woodland, forest and other wooded land habitats, predicted potential distribution of habitat suitability (raster) - series](#)

Metadata

File identifier	1f598e5a-66af-4981-970d-28b1f0c29648 [XML](#)
Metadata language	English
Character set	UTF8
Hierarchy level	Dataset
Date stamp	2024-05-23T14:01:03.135127Z
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

Provided by

EEA