

# JRC Dataset

## Distribution map of Picea abies (2006, FISE, C-SMFAv0-3-2)

### Description:

This dataset series shows the distribution map (raster format: geotiff) of *Picea abies*. The distribution map is provided for Europe (EU28 plus part of other countries within the spatial extent), computed using the FISE harmonised European dataset of taxa presence/absence (based on the integration and harmonisation of the datasets by European National Forestry Inventories; BioSoil; Forest Focus/Monitoring; EUFGIS; GeneticDiversity). The distribution is estimated by means of statistical interpolation (Constrained Spatial Multi-Frequency Analysis, C-SMFA). Available years: 2006. The maps are available in the Forest Information System for Europe (FISE). FISE is run by the European Commission, Joint Research Centre. See the field Lineage for further information. When using these data, please cite the relevant data sources. A suggested citation is included in the following: - Various authors, 2016. *Picea abies* in Europe: an outline on distribution, habitat, importance and threats. In: Online European Atlas of Forest Tree Species. FISE Comm. Publications Office of the European Union. pp. e012300+. (Under review: please, check the current status at: <https://w3id.org/mtv/FISE-Comm/v01/e012300>) - de Rigo, D., Caudullo, G., Houston Durrant, T., San-Miguel-Ayanz, J., 2016. The European Atlas of Forest Tree Species: modelling, data and information on forest tree species. In: San-Miguel-Ayanz, J., de Rigo, D., Caudullo, G., Houston Durrant, T., Mauri, A. (Eds.), European Atlas of Forest Tree Species. Publ. Off. EU, Luxembourg, pp. e01aa69+. <https://w3id.org/mtv/FISE-Comm/v01/e01aa69> -

### Keywords:

Europe, FISE, Model: Constrained Spatial Multi-scale Frequency Analysis (C-SMFA), Modelled quantity: Relative Probability of Presence (RPP), Modelling paradigm: Geospatial Semantic Array Programming (GeoSemAP), Species distribution, Taxonomy division type: Conifers, Taxonomy family: Pinaceae, Taxonomy genus: *Picea*, Taxonomy species: *Picea abies*, forest, forest resource, mathematical analysis, modelling, natural resource, scientific research, spatial distribution, tree

### Related resources:

#### Data access

[Download] Data Download Service

Data download service for maps of *Picea abies* distribution for the current situation (year 2006; forest tree species data: FISE)

<https://w3id.org/mtv/FISE/map-data-RPP/v0-3-2/internet/Picea-abies>

[VIEW] [WMS] INSPIRE View Service

INSPIRE compliant view service for maps of *Picea abies* distribution for the current situation (year 2006; forest tree species data: FISE)

<https://w3id.org/mtv/FISE/map-RPP/v0-3-2/internet/Picea-abies>

### Additional information:

Last Modified: 2014-01-08

Issue date: 2016-08-01

Landing page: <https://w3id.org/mtv/FISE-Comm/v01/e012300/map-RPP>

Temporal coverage: From: 2006-01-01 – To: 2006-12-31

Language: English

Data theme(s): Environment

EuroVoc domain(s): 52 ENVIRONMENT; 56 AGRICULTURE, FORESTRY AND FISHERIES; 64 PRODUCTION, TECHNOLOGY AND RESEARCH

EuroVoc concept(s): biodiversity; forest; scientific research; tree

Identifier: <http://data.europa.eu/89h/24362f17-7935-4a27-8cac-7a6e5b37bae8>

### Geographic information:

Lineage: The data refer to the European Atlas of forest Tree Species [1]. The distribution model relies on statistical interpolation by means of constrained spatial multi-frequency analysis (C-SMFA) [2,3] as implemented by using the Mastrave modelling library [4,5] within the GNU Octave computational environment [6] and the GDAL library [7] within the Python computational environment [8]. Forest tree species presence/absence information has been used from the harmonised datasets in the Forest Information System for Europe (FISE). Dataset version: 0-3-2.

References: [1] Various authors, 2016. *Picea abies* in Europe: an outline on distribution, habitat, importance and threats. In: Online European Atlas of Forest Tree Species. FISE Comm. Publications Office of the European Union. pp. e012300+. (Under review: please, check the current status at: <https://w3id.org/mtv/FISE-Comm/v01/e012300>)

[2] de Rigo, D., et al., exp. 2016. Modelling tree species distribution in Europe with constrained spatial multi-frequency analysis (in prep.) [3] de Rigo, D., Caudullo, G., Houston Durrant, T., San-Miguel-Ayanz, J., 2016.

The European Atlas of Forest Tree Species: modelling, data and information on forest tree species. In: San-Miguel-Ayanz, J., de Rigo, D., Caudullo, G., Houston Durrant, T., Mauri, A. (Eds.), *European Atlas of Forest Tree Species*. Publ. Off. EU, Luxembourg, pp. e01aa69+.

[4] de Rigo, D., 2012. Semantic Array Programming with Mastrave - Introduction to Semantic Computational Modelling. The Mastrave project.

<http://mastrave.org/doc/MTV-1.012-1> [5] de Rigo, D., 2012. Semantic array programming for environmental modelling: Application of the Mastrave library. In: Seppelt, R., Voinov, A. A., Lange, S., Bankamp, D. (Eds.), *International Environmental Modelling and Software Society (iEMSs) 2012 International Congress on Environmental Modelling and Software. Managing Resources of a Limited Planet: Pathways and Visions under Uncertainty, Sixth Biennial Meeting*. pp. 1167-1176. (<http://mfkp.org/INRMM/article/12227965>

INRMM-MiD:12227965) [6] Eaton, J. W., Bateman, D., Hauberg, S., 2008. GNU Octave: a high-level interactive language for numerical computations. *Network Theory*. (<http://mfkp.org/INRMM/article/9115371>

INRMM-MiD:9115371) [7] Warmerdam, F., 2008. The geospatial data abstraction library. In: Hall, G. B., Leahy, M. G. (Eds.), *Open Source Approaches in Spatial Data Handling. Vol. 2 of Advances in Geographic Information Science*. Springer Berlin Heidelberg, pp. 87-104. (<http://mfkp.org/INRMM/article/11894781>

INRMM-MiD:11894781) [8] Drake, F. L., van Rossum, G., 2011. *The Python Language Reference Manual: for Python version 3,2*. Network theory Ltd. (<http://mfkp.org/INRMM/article/11232719> INRMM-MiD:11232719))

Geographic bounding box: 67.658° N, 74.359° E, 28.922° S, -36.684° W

Coordinate Reference System: ETRS89 / LAEA Europe