Chorological maps for the main European woody species: supplementary material

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This document provides additional methodological information, the list of mapped species and the references used to produce the dataset of chorological maps presented in the paper:

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1. TYPES OF SOURCES

The information sources used for compiling woody species distribution ranges can be divided into five main categories:

1. Base maps: chorological maps covering the entire distribution range of European species are found principally in two seminal monographs published in the second half of last century. The first is the Atlas of North European Vascular Plants North of the Tropic of Cancer published in two main volumes by Hultén and Fries [152] providing 2,605 species distribution maps. The second is the Vergleichende Chorologie der Zentraleuropäischen Flora (Comparative chorology of the Central-European Flora), a monumental publication in three double-volumes edited by Meusel *et al.*[204][203][202] providing distribution maps and accompanying texts for ca. 8,000 species. Even if dated (most of the Hultén and Fries maps were compiled between 1950 and 1970) and sometimes not very detailed especially for species ranges at continental or global scale, the maps from these two publications represent the most complete overview of the species range. Another important source of maps covering complete distribution ranges specifically for important forest tree species is the EUFORGEN website (www.euforgen.org), which provides precise distribution maps in digital format, created on the basis of published maps (e.g. Meusel *et al.*, loc. cit.) as well as international and local expertise (from [87] to [114]).
2. Continental maps: the most important sources covering the European continent are two. The first is Atlas Florae Europeae (AFE) published in 16 volumes from 1972 to 2013, which provides distribution maps of the species presence/absence in a Universal Transverse Mercator (UTM) grid of 50x50 km with some deviating sizes in the overlapping areas of the UTM zones. The ongoing AFE project follows the Englerian taxonomic sequence, starting from pteridophytes and gymnosperms up to Rosaceae in the latest volumes. Distribution information was taken from volume 2 and 3 [159][160]. The second source is the Map of Natural Vegetation of Europe [42], a publication comprising a descriptive text volume and GIS data, which provides the description and the complete coverage of the potential natural vegetation over Europe. In other continents, distribution maps for tree and shrub species are available e.g. for North America by the United States Geological Survey (USGS), digitized from "Atlas of United States trees" published by Little Jr. [181][182]. Concerning the Asian continent, coarse outline distribution maps covering the ex-USSR countries are published in 3 volumes by Sokolov *et al.* (Ареалы деревьев и кустарников СССР, Distribution ranges of trees and shrubs in USSR) [257][258][259]. Information for species ranges in other North-Asian regions is available only for single countries, such as China, Japan and North and South Korea.
3. National/Regional maps: numerous sources are available on web portals or in monographs providing occurrence information of species over a specific country or region. These distribution maps are published in several formats, such as grid atlas, sampling point datasets, or mapped regional

distribution areas, and furnish different types of information, from simple species occurrences, to its abundance or its floristic status (i.e. native, introduced, extinct).

4. Geodatabases: these sources are online archives providing geo-localized species occurrences. The web portal Global Biodiversity Information Facility (GBIF - www.gbif.org) represents the largest open repository for species occurrences, where over 1 billion of records in nearly 50,000 datasets (on early 2020) are stored and constantly expanded with new data. As this web archive does not verify the geographical quality of published data, only a few trustworthy datasets from GBIF database were used. The selected datasets were created by academic or national organizations (museums, universities, national inventories or national programmes) covering principally specific countries. Another large geodatabase with approximately 375,000 sample plots is the EU-Forest Dataset, which records the presence/absence of the main forest tree species in a 1 square kilometre grid [194]. This dataset covers 21 European countries, principally Central, Western and Northern ones, drawing on their national forest inventories. Other available large geodatabases are the Conifers of the World managed by the botanist Aljos Farjon with nearly 37,000 conifer records all over the world [119], and the European Information System on Forest Genetic Resources with over 3,200 forest samples in 34 European countries that documents, among others, the main tree species presence [115].
5. Scientific publications: for several, often regionally rare or peculiar species, distribution information in a particular region or area has been documented in textbooks, journal papers or websites. The largest bibliographic source providing citations of published single species distribution maps is provided by Index Holmiensis [264][186][184][185]. For some cases, exact localizations had to be recorded based on verbal description of the species distribution and localities, sometimes with the help of toponyms.

2. METHOD

The chorological maps found in printed publications were digitized with a photo scanner and converted into high resolution images. Then, all the map images collected from physical books, from e-books in PDF or DJVU formats, or from web pages were imported into GIS software and geo-referenced by identifying control points on a coordinate grid (when it was present) or on prominent geographical features of large rivers, coastlines or country boundaries. In order to avoid excessive image distortions, the geo-referencing process was performed in the original projection of the source map, or in a similar one in cases where the projection was unknown. Then, the existing point and polygon geodatabases were imported and intersected with the digitized maps. The general base maps were compared and evaluated with the more updated and detailed ones at country level and with available point/polygon data. Additionally, a digital elevation model (DEM) was used as background to provide information on the orography of the mapped areas. Finally, by comparing, evaluating and synthesizing the information of all different sources, continuous areas of occupancy of the species were drawn as polygons.

Single or small concentrations of occurrence locations separated from the main continuity of the species range were considered as isolated populations and digitized as point features instead of polygons. For those plant species occurring also outside the native ranges, the distribution area was digitized separately as introduced and naturalized range (synanthropic). Moreover, when detailed information was available, their ranges were mapped separately.

3. USAGE AND LIMITATIONS

The distribution maps represent species range data that have been compiled at continental scale based on numerous and heterogeneous sources. Since the maps aim at representing the species general chorology, the data provide a synthetic overview of all available distribution information. Therefore, the mapped boundaries should not be considered as precise and sharp limits where the species is definitely present or absent, particularly at local level. Indeed, the first version of this dataset was created for the European Atlas of Forest Tree Species [242] to concisely outline the distribution ranges of described species, complementing information on the species biology and ecology. It is worth noting, however, that the European Atlas of Forest Tree Species also contains, in addition to the synoptic

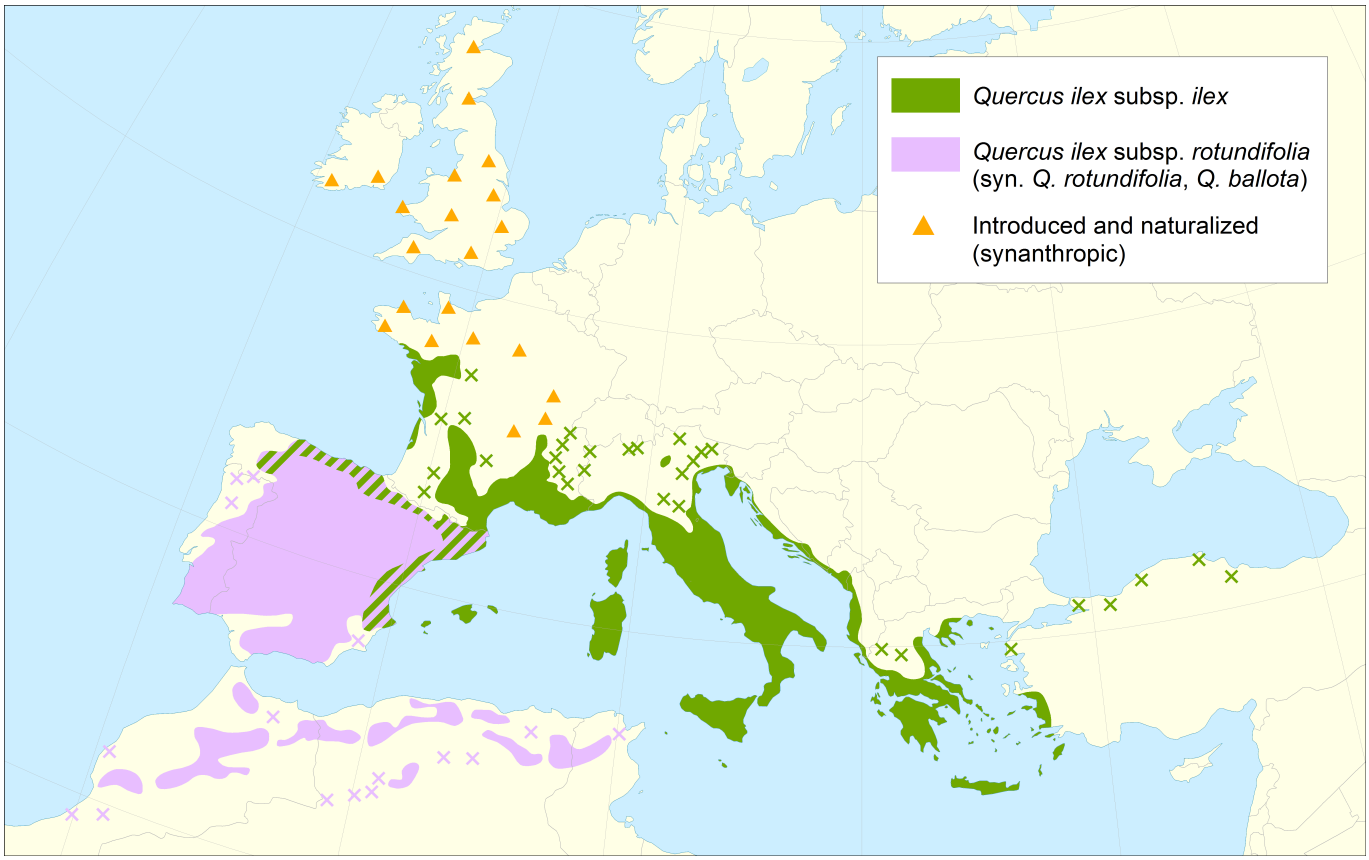

Figure 1: example of chorological map showing the range the holm oak (*Quercus ilex* L.). The distributions of the two subspecies are shown in different colours; where both subspecies occur, alternating colour strips are used. Isolated populations and synanthropic areas are shown as point features and symbolized in the map as crosses and triangles, respectively.

dataset presented here, numerically modelled maps of the likelihood of tree presence at 1 km grid cell resolution.

Errors and imprecision are partly inevitable, due to various causes, such as the quality of the original source, the geo-referencing procedure, subjective interpretation and comparison of all sources in the same area, and finally due to the limited precision of the manual digitalisation process of the range borders. Moreover, not all the regions are homogeneously covered by data sources. There is a relative lack of information on spatial distribution and even species presence in Europe for Balkan countries (i.e. Bosnia and Herzegovina, Serbia and Kosovo, Macedonia, Montenegro, Albania), in North Africa principally in Tunisia and Libya and in the Middle East in Syria and Iraq. Finally, some specific sources are dated, difficult to find, or merely not yet consulted. For all these reasons, the maps are scheduled to be updated, refined and, where necessary, corrected on the basis of new available sources and further expert reviews.

4. LIST OF SPECIES AND FILES

Table 1 provides the lists of geographic ESRI shapefiles and the list of bibliographic sources used for every species, ordered following the Englerian taxonomic sequence. Polygon shapefiles have the **plg** suffix and define the continuous areas of occupancy of the species range. Point shapefiles have the suffix **pnt** and identify more fragmented and isolated populations. Additional point and/or polygon shapefiles with suffix **syn** define the synanthropic areas outside the natural species range. Polygon borders delimiting the ranges are both clipped and un-clipped to a coastline. The un-clipped version offers the possibility to mask or clip and extract the terrestrial range parts using GIS data layers of the users' choice. For the clipped version (suffix **clip**), a coastlines at medium scale derived from Natural Earth "Admin 0 – Countries" 1:50M version 4.1.0 (www.naturalearthdata.com) was used.
Some species have additional shapefiles describing the distribution range:

- Cupressus_sempervirens_med_plg.shp: the probable natural range of the species in the Mediterranean Basin.
- Sambucus_aria_complex_plg.shp: distribution of the species complex including all subspecies.

Table 1: *List of mapped species with related files and used references.*

FAMILY	SPECIES	SUBSPECIES	FILES	REFERENCES
Pinaceae	*Abies alba* Mill.		Abies_alba_plg.shp Abies_alba_pnt.shp Abies_alba_syn_pnt.shp Abies_alba_syn_plg.shp Abies_alba_syn_plg_clip.shp	[17] [19] [23] [44] [38] [42] [47] [49] [52] [54] [61] [72] [84] [110] [115] [119] [37] [123] [128] [147] [154] [159] [191] [194] [198] [204] [212] [211] [215] [238] [247] [248] [251] [257] [260] [265] [267] [268] [273] [275] [280] [295] [299]
	Abies cephalonica Loudon		Abies_cephalonica_plg.shp Abies_cephalonica_plg_clip.shp Abies_cephalonica_pnt.shp	[115] [119] [262]
	Abies borisii-regis Mattf.		Abies_birisiiregis_plg.shp Abies_birisiiregis_pnt.shp	[18] [40] [115] [119] [262] [299]
	Abies pinsapo Boiss.	*Abies pinsapo marocana* *Abies pinsapo pinsapo*	Abies_pinsapo_marocana_plg.shp Abies_pinsapo_marocana_pnt.shp Abies_pinsapo_pinsapo_plg.shp Abies_pinsapo_pinsapo_pnt.shp	[76] [119] [129]
	Abies numidica Mill.		Abies_numidica_plg.shp Abies_numidica_pnt.shp	[129]
	Abies nebrodensis Mill.		Abies_nebrodensis_plg.shp Abies_nebrodensis_pnt.shp	[285]
	Abies cilicica Mill.		Abies_cilicica_plg.shp Abies_cilicica_pnt.shp	[26] [28] [45] [64] [67] [129] [115] [119]
	Abies nordmanniana (Steven) Spach	*Abies nordmanniana equi-trojani* *Abies nordmanniana nordmanniana*	Abies_nordmanniana_equi-trojani_plg.shp Abies_nordmanniana_nordmanniana_plg.shp	[18] [29] [42] [45] [58] [115] [119] [140] [257] [274]
	Cedrus atlantica (Endl.) Manetti ex Carrière		Cedrus_atlantica_plg.shp Cedrus_atlantica_pnt.shp	[56] [76] [289]
	Cedrus libani A.Rich.	*Cedrus libani libani* *Cedrus libani brevifolia*	Cedrus_libani_libani_plg.shp Cedrus_libani_libani_pnt.shp Cedrus_libani_brevifolia_pnt.shp	[27] [45] [83] [153] [292]
	Picea abies (L.) H.Karst.		Picea_abies_plg.shp Picea_abies_plg_clip.shp Picea_abies_pnt.shp Picea_abies_syn_plg.shp Picea_abies_syn_plg_clip.shp Picea_abies_syn_pnt.shp	[44] [32] [42] [43] [47] [54] [72] [77] [84] [87] [115] [119] [121] [37] [123] [147] [151] [159] [173] [194] [204] [212] [211] [214] [215] [238] [247] [248] [251] [260] [265] [267] [268] [273] [275] [276] [280]
	Picea omorika (Pancic) Purk.		Picea_omorika_plg.shp Picea_omorika_pnt.shp	[14] [115] [119] [210] [261]
	Larix decidua Mill.	*Larix decidua decidua* *Larix decidua carpatica* *Larix decidua polonica*	Larix_decidua_decidua_plg.shp Larix_decidua_carpatica_plg.shp Larix_decidua_carpatica_pnt.shp Larix_decidua_polonica_pnt.shp	[42] [61] [99] [115] [119] [194] [214] [287]
	Pinus halepensis (L.) Mill.		Pinus_halepensis_plg.shp Pinus_halepensis_plg_clip.shp Pinus_halepensis_pnt.shp	[29] [42] [47] [52] [54] [63] [65] [76] [89] [115] [119] [122] [123] [157] [159] [189] [194] [198] [215] [237] [238] [265] [276]
	Pinus heldreichii H.Chris.		Pinus_heldreichii_plg.shp Pinus_heldreichii_pnt.shp	[24] [31] [63] [130] [136] [262] [279] [283]

FAMILY	SPECIES	SUBSPECIES	FILES	REFERENCES
	Pinus brutia Ten.	*Pinus brutia brutia* *Pinus brutia eldarica* *Pinus brutia pendulifolia* *Pinus brutia pityusa*	Pinus_brutia_brutia_plg.shp Pinus_brutia_brutia_plg_clip.shp Pinus_brutia_brutia_pnt.shp Pinus_brutia_eldarica_plg.shp Pinus_brutia_eldarica_pnt.shp Pinus_brutia_pendulifolia_pnt.shp Pinus_brutia_pityusa_plg.shp Pinus_brutia_pityusa_plg_clip.shp	[29] [42] [63] [65] [91] [115] [119] [157] [159] [194] [223] [252] [257] [262]
	Pinus pinea L.		Pinus_pinea_plg.shp Pinus_pinea_plg_clip.shp Pinus_pinea_pnt.shp Pinus_pinea_syn_plg.shp Pinus_pinea_syn_plg_clip.shp Pinus_pinea_syn_pnt.shp	[2] [10] [12] [17] [29] [47] [52] [53] [54] [62] [63] [65] [88] [115] [119] [122] [123] [157] [159] [166] [189] [192] [194] [198] [215] [237] [238] [245] [255] [256] [263] [265] [269] [282]
	Pinus pinaster Aiton		Pinus_pinaster_plg.shp Pinus_pinaster_plg_clip.shp Pinus_pinaster_pnt.shp Pinus_pinaster_syn_pnt.shp	[17] [44] [42] [47] [52] [54] [63] [76] [104] [115] [119] [37] [123] [147] [159] [189] [194] [198] [212] [211] [215] [237] [238] [255] [265] [280]
	Pinus nigra J.F. Arnold	*Pinus nigra dalmatica* *Pinus nigra laricio* *Pinus nigra nigra* *Pinus nigra pallasiana* *Pinus nigra salzmannii*	Pinus_nigra_dalmatica_pnt.shp Pinus_nigra_laricio_plg.shp Pinus_nigra_laricio_pnt.shp Pinus_nigra_nigra_plg.shp Pinus_nigra_nigra_plg_clip.shp Pinus_nigra_nigra_pnt.shp Pinus_nigra_pallasiana_plg.shp Pinus_nigra_pallasiana_plg_clip.shp Pinus_nigra_pallasiana_pnt.shp Pinus_nigra_salzmannii_plg.shp Pinus_nigra_salzmannii_pnt.shp	[17] [29] [42] [47] [52] [54] [63] [95] [115] [119] [123] [143] [159] [179] [189] [194] [198] [215] [237] [238] [248] [252] [262] [265] [276]
	Pinus sylvestris L.		Pinus_sylvestris_plg.shp Pinus_sylvestris_plg_clip.shp Pinus_sylvestris_pnt.shp Pinus_sylvestris_syn_plg.shp Pinus_sylvestris_syn_plg_clip.shp Pinus_sylvestris_syn_pnt.shp	[9] [23] [44] [32] [42] [47] [54] [61] [63] [72] [107] [115] [84] [116] [119] [120] [121] [37] [123] [138] [147] [151] [152] [154] [159] [167] [173] [189] [194] [198] [204] [212] [211] [214] [215] [217] [217] [237] [238] [248] [251] [255] [257] [260] [265] [267] [268] [273] [275] [276] [280]
	Pinus cembra L.		Pinus_cembra_plg.shp Pinus_cembra_pnt.shp	[41] [42] [61] [112] [115] [119] [190] [194] [214] [244] [265]
	Pinus peuce Griseb		Pinus_peuce_plg.shp Pinus_peuce_pnt.shp	[15] [16] [48] [63] [136] [240] [252] [262]
	Pinus mugo Turra	*Pinus mugo* *mugo + rotundata* *Pinus mugo uncinata*	Pinus_mugo_mugo_rotundata_plg.shp Pinus_mugo_mugo_rotundata_pnt.shp Pinus_mugo_uncinata_plg.shp Pinus_mugo_uncinata_pnt.shp	[17] [23] [47] [54] [61] [63] [84] [115] [119] [37] [123] [159] [194] [198] [214] [215] [238] [248] [257] [260] [265] [268] [273] [275] [276]
Cupressaceae	*Cupressus dupreziana* A.Camus		Cupressus_dupreziana_dupreziana_plg.shp Cupressus_dupreziana_dupreziana_pnt.shp Cupressus_dupreziana_atlantica_plg.shp Cupressus_dupreziana_atlantica_pnt.shp	[5] [129] [250]
	Cupressus sempervirens L.		Cupressus_sempervirens_plg.shp Cupressus_sempervirens_plg_clip.shp Cupressus_sempervirens_pnt.shp Cupressus_sempervirens_syn_plg.shp Cupressus_sempervirens_syn_plg_clip.shp Cupressus_sempervirens_med_plg_clip.shp	[47] [54] [73] [115] [119] [123] [157] [171] [189] [194] [198] [237] [275]
	Juniperus oxycedrus L.		Juniperus_oxycedrus_plg.shp Juniperus_oxycedrus_plg_clip.shp Juniperus_oxycedrus_pnt.shp	[29] [42] [47] [54] [115] [119] [123] [157] [159] [168] [189] [194] [198] [215] [237] [238] [248] [255] [257] [265] [275]

FAMILY	SPECIES	SUBSPECIES	FILES	REFERENCES
	Juniperus communis L.		Juniperus_communis_plg.shp Juniperus_communis_plg_clip.shp Juniperus_communis_pnt.shp	[4] [17] [44] [29] [32] [42] [45] [47] [52] [54] [55] [61] [72] [67] [80] [84] [116] [119] [121] [37] [123] [140] [147] [151] [152] [159] [170] [173] [174] [180] [189] [198] [204] [212] [211] [214] [215] [233] [237] [238] [243] [248] [251] [255] [257] [260] [262] [265] [267] [268] [273] [275] [276] [277] [280]
	Juniperus excelsa s.l.	*J. excelsa* *J. polycarpos* var. *polycarpos* *J. polycarpos* var. *seravschanica* *J. turcomanica*	Juniperus_excelsa_excelsa_plg.shp Juniperus_excelsa_excelsa_plg_clip.shp Juniperus_excelsa_excelsa_pnt.shp Juniperus_excelsa_polycarpos_plg.shp Juniperus_excelsa_polycarpos_pnt.shp Juniperus_excelsa_seravschanica_plg.shp Juniperus_excelsa_seravschanica_pnt.shp Juniperus_excelsa_turcomanica_plg.shp Juniperus_excelsa_turcomanica_pnt.shp	[8] [40] [45] [57] [64] [115] [117] [119] [140] [149] [150] [195] [228] [257] [262] [289] [293]
	Juniperus phoenicea L.		Juniperus_phoenicea_plg.shp Juniperus_phoenicea_plg_clip.shp Juniperus_phoenicea_pnt.shp	[7] [29] [42] [45] [47] [54] [65] [80] [119] [122] [123] [128] [157] [159] [189] [194] [196] [198] [215] [237] [238] [255] [262] [265] [275]
	Juniperus thurifera L.		Juniperus_thurifera_plg.shp Juniperus_thurifera_pnt.shp	[17] [42] [47] [54] [80] [119] [123] [128] [159] [194] [198] [237] [238] [265]
	Tetraclinis articulata (Vahl) Mast.		Tetraclinis_articulata_plg.shp Tetraclinis_articulata_plg_clip.shp Tetraclinis_articulata_pnt.shp	[76] [86] [119] [128] [129] [146]
Taxaceae	*Taxus baccata* L.		Taxus_baccata_plg.shp Taxus_baccata_plg_clip.shp Taxus_baccata_pnt.shp Taxus_baccata_syn_plg.shp Taxus_baccata_syn_plg_clip.shp Taxus_baccata_syn_pnt.shp	[17] [23] [44] [29] [33] [38] [42] [45] [47] [52] [54] [61] [72] [80] [84] [115] [119] [37] [123] [147] [151] [152] [159] [173] [189] [194] [198] [204] [212] [211] [214] [215] [223] [232] [237] [238] [247] [248] [251] [255] [257] [260] [262] [265] [267] [268] [273] [275] [276] [281] [280] [295]
Salicaceae	*Salix alba* L.		Salix_alba_plg.shp Salix_alba_plg_clip.shp Salix_alba_syn_pnt.shp	[29] [44] [115] [163] [204] [253]
	Salix caprea L.		Salix_caprea_plg.shp Salix_caprea_plg_clip.shp Salix_caprea_pnt.shp	[44] [47] [54] [55] [72] [84] [115] [116] [121] [123] [147] [151] [152] [160] [163] [173] [189] [198] [204] [212] [211] [237] [238] [248] [251] [253] [257] [260] [265] [267] [268] [273] [275] [276] [280]
	Populus alba L.		Populus_alba_plg.shp Populus_alba_plg_clip.shp Populus_alba_pnt.shp	[44] [29] [42] [47] [54] [61] [72] [84] [115] [116] [123] [147] [156] [157] [160] [173] [189] [194] [198] [212] [211] [214] [237] [238] [248] [251] [255] [257] [260] [265] [267] [268] [273] [275] [276] [280]
	Populus nigra L.		Populus_nigra_plg.shp Populus_nigra_plg_clip.shp Populus_nigra_pnt.shp	[44] [29] [47] [54] [72] [69] [84] [115] [116] [123] [147] [157] [160] [189] [194] [198] [204] [212] [211] [214] [237] [238] [248] [251] [255] [260] [265] [267] [268] [273] [275] [276] [280]

FAMILY	SPECIES	SUBSPECIES	FILES	REFERENCES
	Populus tremula L.		Populus_tremula_plg.shp Populus_tremula_plg_clip.shp Populus_tremula_pnt.shp	[9] [44] [29] [42] [47] [52] [54] [55] [72] [68] [84] [93] [115] [116] [121] [37] [123] [147] [151] [152] [160] [163] [173] [194] [198] [204] [212] [211] [236] [237] [238] [248] [251] [255] [260] [265] [267] [268] [273] [275] [276] [280]
Juglandaceae	*Juglans regia* L.		Juglans_regia_plg.shp Juglans_regia_plg_clip.shp Juglans_regia_pnt.shp	[21] [216] [44] [35] [46] [61] [229] [116] [126] [127] [128] [131] [134] [135] [157] [158] [160] [164] [165] [178] [194] [214] [220] [230] [241] [251] [255] [262] [288] [290] [294]
Betulaceae	*Betula pendula* Roth		Betula_pendula_plg.shp Betula_pendula_plg_clip.shp Betula_pendula_pnt.shp	[9] [44] [29] [42] [45] [47] [49] [52] [54] [72] [84] [109] [115] [116] [121] [123] [147] [151] [152] [160] [173] [189] [194] [198] [204] [212] [211] [215] [238] [247] [248] [251] [255] [260] [262] [265] [267] [268] [273] [275] [276] [277] [280] [296]
	Betula pubescens Ehrh.		Betula_pubescens_plg.shp Betula_pubescens_plg_clip.shp Betula_pubescens_pnt.shp	[9] [44] [29] [50] [42] [47] [49] [54] [72] [84] [115] [121] [123] [147] [151] [152] [160] [173] [194] [204] [212] [211] [215] [238] [251] [255] [258] [260] [265] [267] [268] [273] [275] [276] [277] [280] [296]
	Alnus cordata (Loisel.) Duby		Alnus_cordata_plg.shp Alnus_cordata_pnt.shp	[42] [47] [52] [101] [115] [160] [194] [204]
	Alnus glutinosa (L.) Gaertn.		Alnus_glutinosa_plg.shp Alnus_glutinosa_plg_clip.shp Alnus_glutinosa_pnt.shp Alnus_glutinosa_syn_pnt.shp	[17] [44] [29] [42] [45] [47] [49] [52] [54] [61] [72] [68] [84] [90] [115] [121] [123] [141] [147] [151] [152] [160] [173] [189] [194] [198] [204] [209] [212] [211] [215] [238] [248] [251] [255] [258] [260] [262] [265] [267] [268] [273] [275] [276] [280]
	Alnus incana (L.) Moench	*Alnus incana hirsuta* *Alnus incana incana* *Alnus incana rugosa* *Alnus incana tenuifolia*	Alnus_incana_hirsuta_plg.shp Alnus_incana_hirsuta_plg_clip.shp Alnus_incana_hirsuta_pnt.shp Alnus_incana_incana_plg.shp Alnus_incana_incana_plg_clip.shp Alnus_incana_incana_pnt.shp Alnus_incana_incana_syn_pnt.shp Alnus_incana_rugosa_plg.shp Alnus_incana_rugosa_plg_clip.shp Alnus_incana_rugosa_pnt.shp Alnus_incana_tenuifolia_plg.shp Alnus_incana_tenuifolia_pnt.shp	[44] [47] [49] [54] [72] [84] [115] [116] [121] [141] [147] [151] [152] [160] [173] [181] [182] [194] [204] [212] [211] [214] [215] [248] [251] [258] [260] [265] [267] [268] [273] [275] [276] [280]
	Alnus viridis (Chaix) DC.	*Alnus viridis crispa* *Alnus viridis fruticosa* *Alnus viridis sinuata* *Alnus viridis suaveolens* *Alnus viridis viridis*	Alnus_viridis_crispa_plg.shp Alnus_viridis_crispa_plg_clip.shp Alnus_viridis_crispa_pnt.shp Alnus_viridis_fruticosa_plg.shp Alnus_viridis_fruticosa_plg_clip.shp Alnus_viridis_fruticosa_pnt.shp Alnus_viridis_sinuata_plg.shp Alnus_viridis_sinuata_plg_clip.shp Alnus_viridis_suaveolens_pnt.shp Alnus_viridis_viridis_plg.shp Alnus_viridis_viridis_pnt.shp Alnus_viridis_viridis_syn_pnt.shp	[23] [30] [33] [42] [49] [54] [55] [61] [84] [115] [116] [37] [125] [138] [152] [160] [194] [198] [204] [214] [215] [251] [258] [260] [265] [267] [275] [276]

FAMILY	SPECIES	SUBSPECIES	FILES	REFERENCES
	Carpinus betulus L.		Carpinus_betulus_plg.shp Carpinus_betulus_plg_clip.shp Carpinus_betulus_pnt.shp Carpinus_betulus_syn_pnt.shp	[44] [29] [32] [42] [45] [47] [49] [61] [72] [68] [84] [115] [123] [138] [147] [151] [152] [160] [194] [198] [204] [212] [211] [214] [215] [238] [248] [251] [258] [260] [262] [265] [267] [268] [273] [275] [276] [280]
	Carpinus orientalis Mill.		Carpinus_orientalis_plg.shp Carpinus_orientalis_plg_clip.shp Carpinus_orientalis_pnt.shp	[29] [33] [42] [45] [52] [68] [115] [122] [160] [194] [201] [248] [258] [262] [275]
	Ostrya carpinifolia Scop.		Ostrya_carpinifolia_plg.shp Ostrya_carpinifolia_plg_clip.shp Ostrya_carpinifolia_pnt.shp Ostrya_carpinifolia_syn_pnt.shp	[29] [42] [45] [47] [52] [68] [115] [122] [160] [194] [201] [215] [248] [258] [262] [265] [275] [276]
	Corylus avellana L.		Corylus_avellana_plg.shp Corylus_avellana_plg_clip.shp Corylus_avellana_pnt.shp	[9] [29] [42] [45] [47] [49] [54] [72] [68] [84] [115] [121] [123] [147] [151] [152] [160] [163] [173] [189] [194] [198] [204] [212] [211] [215] [237] [238] [248] [251] [255] [258] [260] [262] [267] [268] [273] [275] [276] [280]
Fagaceae	*Fagus sylvatica* L.	*Fagus sylvatica orientalis* *Fagus sylvatica sylvatica*	Fagus_sylvatica_orientalis_plg.shp Fagus_sylvatica_orientalis_plg_clip.shp Fagus_sylvatica_orientalis_pnt.shp Fagus_sylvatica_sylvatica_plg.shp Fagus_sylvatica_sylvatica_plg_clip.shp Fagus_sylvatica_sylvatica_pnt.shp Fagus_sylvatica_sylvatica_syn_pnt.shp	[9] [17] [23] [44] [29] [42] [45] [47] [52] [54] [72] [68] [74] [84] [105] [94] [115] [122] [37] [123] [138] [147] [151] [152] [160] [194] [198] [201] [212] [211] [237] [238] [248] [251] [258] [260] [265] [267] [268] [273] [275] [276] [277] [280]
	Castanea sativa Mill.		Castanea_sativa_plg.shp Castanea_sativa_plg_clip.shp Castanea_sativa_pnt.shp Castanea_sativa_syn_plg.shp Castanea_sativa_syn_plg_clip.shp Castanea_sativa_syn_pnt.shp	[9] [17] [23] [44] [29] [32] [45] [47] [49] [52] [54] [60] [61] [72] [68] [84] [96] [115] [122] [37] [123] [138] [147] [160] [172] [183] [189] [198] [204] [212] [211] [214] [215] [225] [237] [238] [248] [251] [255] [257] [260] [265] [275] [276] [280]
	Quercus cerris L.		Quercus_cerris_plg.shp Quercus_cerris_plg_clip.shp Quercus_cerris_pnt.shp Quercus_cerris_syn_pnt.shp	[44] [29] [32] [42] [45] [47] [52] [61] [65] [72] [68] [115] [37] [138] [147] [160] [194] [198] [204] [212] [211] [214] [215] [248] [251] [260] [262] [265] [275] [276] [280] [298]
	Quercus frainetto Ten.		Quercus_frainetto_plg.shp Quercus_frainetto_plg_clip.shp Quercus_frainetto_pnt.shp Quercus_frainetto_syn_pnt.shp	[3] [23] [29] [42] [68] [115] [122] [160] [194] [201] [215] [262]
	Quercus faginea Lam.		Quercus_faginea_plg.shp Quercus_faginea_pnt.shp	[76] [155] [162] [188] [232] [255] [286]
	Quercus coccifera L.		Quercus_coccifera_plg.shp Quercus_coccifera_plg_clip.shp Quercus_coccifera_pnt.shp	[1] [17] [23] [29] [42] [47] [54] [65] [68] [115] [123] [133] [157] [160] [189] [193] [194] [198] [204] [213] [215] [237] [238] [255] [265] [270] [275]

FAMILY	SPECIES	SUBSPECIES	FILES	REFERENCES
	Quercus ilex L.	*Quercus ilex ilex* *Quercus ilex rotundifolia*	Quercus_ilex_ilex_plg.shp Quercus_ilex_ilex_plg_clip.shp Quercus_ilex_ilex_pnt.shp Quercus_ilex_ilex_syn_pnt.shp Quercus_ilex_rotundifolia_plg.shp Quercus_ilex_rotundifolia_plg_clip.shp Quercus_ilex_rotundifolia_pnt.shp	[17] [44] [29] [42] [47] [54] [61] [66] [68] [76] [115] [123] [160] [194] [198] [204] [206] [212] [211] [215] [234] [237] [238] [255] [262] [265] [275] [276]
	Quercus suber L.		Quercus_suber_plg.shp Quercus_suber_plg_clip.shp Quercus_suber_pnt.shp Quercus_suber_syn_pnt.shp	[17] [42] [47] [54] [76] [98] [115] [123] [160] [189] [194] [198] [215] [224] [237] [238] [255] [265] [275]
	Quercus petraea (Matt.) Liebl.		Quercus_petraea_plg.shp Quercus_petraea_plg_clip.shp Quercus_petraea_pnt.shp	[17] [23] [44] [29] [42] [47] [52] [54] [61] [72] [68] [84] [108] [115] [37] [123] [138] [147] [151] [152] [160] [194] [198] [199] [200] [212] [211] [214] [215] [219] [238] [247] [248] [251] [255] [258] [260] [265] [267] [268] [273] [275] [276] [280]
	Quercus robur L.		Quercus_robur_plg.shp Quercus_robur_plg_clip.shp Quercus_robur_pnt.shp Quercus_robur_syn_pnt.shp	[9] [17] [23] [44] [29] [42] [47] [52] [54] [61] [72] [68] [84] [106] [115] [121] [122] [37] [123] [138] [141] [147] [151] [152] [160] [169] [173] [194] [198] [199] [204] [212] [211] [214] [215] [237] [238] [248] [251] [255] [258] [260] [265] [267] [268] [273] [275] [276] [280]
	Quercus pubescens Willd.		Quercus_pubescens_plg.shp Quercus_pubescens_plg_clip.shp Quercus_pubescens_pnt.shp	[17] [23] [29] [42] [45] [47] [52] [54] [61] [68] [115] [122] [37] [123] [147] [160] [161] [194] [198] [201] [214] [215] [237] [238] [248] [258] [260] [265] [273] [275] [276] [280] [291]
	Quercus pyrenaica Willd.		Quercus_pyrenaica_plg.shp Quercus_pyrenaica_plg_clip.shp Quercus_pyrenaica_pnt.shp	[17] [42] [47] [54] [123] [160] [189] [194] [198] [205] [237] [238] [255] [265]
	Quercus trojana Webb.	*Quercus trojana euboica* *Quercus trojana trojana* *Quercus trojana yaltirikii*	Quercus_trojana_euboica_pnt.shp Quercus_trojana_trojana_plg.shp Quercus_trojana_trojana_plg_clip.shp Quercus_trojana_trojana_pnt.shp Quercus_trojana_yaltirikii_pnt.shp	[23] [42] [115] [160] [194] [215] [226] [300]
Ulmaceae	*Ulmus glabra* Huds.		Ulmus_glabra_plg.shp Ulmus_glabra_plg_clip.shp Ulmus_glabra_pnt.shp Ulmus_glabra_syn_pnt.shp	[9] [11] [17] [44] [29] [42] [47] [54] [61] [72] [84] [115] [121] [37] [123] [138] [147] [151] [152] [160] [173] [189] [194] [198] [212] [211] [214] [215] [237] [238] [248] [251] [255] [260] [265] [267] [268] [273] [275] [276] [280]
	Ulmus laevis Pall.		Ulmus_laevis_plg.shp Ulmus_laevis_plg_clip.shp Ulmus_laevis_pnt.shp Ulmus_laevis_syn_pnt.shp	[9] [23] [44] [29] [42] [47] [59] [61] [77] [84] [100] [115] [37] [138] [147] [151] [152] [160] [163] [194] [211] [214] [215] [238] [248] [251] [255] [258] [260] [265] [267] [268] [273] [276] [284]

FAMILY	SPECIES	SUBSPECIES	FILES	REFERENCES
	Ulmus minor Mill.		Ulmus_minor_plg.shp Ulmus_minor_plg_clip.shp Ulmus_minor_pnt.shp Ulmus_minor_syn_pnt.shp	[11] [17] [47] [54] [61] [65] [72] [84] [115] [123] [147] [152] [157] [160] [163] [189] [194] [198] [212] [211] [214] [237] [248] [251] [255] [258] [260] [265] [268] [273] [275] [276]
Cannabaceae	*Celtis australis* L.		Celtis_australis_plg.shp Celtis_australis_plg_clip.shp Celtis_australis_pnt.shp Celtis_australis_syn_pnt.shp	[23] [29] [42] [47] [49] [54] [61] [65] [70] [123] [157] [160] [189] [194] [198] [215] [237] [238] [248] [255] [258] [265] [275]
Altingiaceae	*Liquidambar orientalis* Mill.		Liquidambar_orientalis_plg.shp Liquidambar_orientalis_plg_clip.shp Liquidambar_orientalis_pnt.shp	[13] [22] [82] [144] [278]
Platanaceae	*Platanus orientalis* L.		Platanus_orientalis_plg.shp Platanus_orientalis_plg_clip.shp Platanus_orientalis_pnt.shp	[45] [137] [239] [262] [293]
Rosaceae	*Sorbus aria* (L.) Crantz		Sorbus_aria_plg.shp Sorbus_aria_plg_clip.shp Sorbus_aria_pnt.shp Sorbus_aria_complex_plg.shp Sorbus_aria_complex_plg_clip.shp	[23] [47] [54] [61] [72] [69] [84] [37] [123] [147] [152] [189] [194] [198] [204] [212] [211] [214] [215] [237] [238] [248] [251] [255] [260] [265] [267] [275] [276]
	Sorbus aucuparia L.		Sorbus_aucuparia_plg.shp Sorbus_aucuparia_plg_clip.shp Sorbus_aucuparia_pnt.shp	[9] [17] [23] [29] [36] [42] [45] [47] [54] [55] [61] [72] [84] [115] [116] [37] [123] [147] [152] [170] [189] [194] [198] [204] [212] [211] [215] [248] [251] [255] [258] [260] [265] [267] [268] [273] [275] [276] [277] [280]
	Sorbus torminalis (L.) Crantz		Sorbus_torminalis_plg.shp Sorbus_torminalis_plg_clip.shp Sorbus_torminalis_pnt.shp	[9] [23] [29] [34] [42] [47] [54] [61] [72] [84] [115] [37] [123] [152] [187] [189] [194] [198] [204] [212] [211] [214] [215] [237] [238] [248] [255] [258] [260] [265] [273] [275] [276] [280]
	Sorbus domestica L.		Sorbus_domestica_plg.shp Sorbus_domestica_plg_clip.shp Sorbus_domestica_pnt.shp	[9] [29] [54] [61] [113] [115] [37] [123] [132] [189] [194] [198] [204] [214] [215] [237] [238] [255] [258] [265]
	Prunus avium (L.) L.		Prunus_avium_plg.shp Prunus_avium_plg_clip.shp Prunus_avium_pnt.shp	[17] [29] [42] [47] [54] [61] [72] [84] [111] [115] [37] [123] [147] [151] [152] [189] [194] [198] [212] [211] [214] [215] [237] [248] [251] [255] [258] [260] [265] [267] [268] [275] [276] [280]
	Prunus spinosa L.		Prunus_spinosa_plg.shp Prunus_spinosa_plg_clip.shp Prunus_spinosa_pnt.shp	[9] [42] [47] [54] [72] [81] [84] [123] [147] [151] [152] [157] [173] [189] [194] [198] [204] [212] [211] [237] [238] [248] [251] [255] [258] [260] [267] [268] [273] [275] [276] [277] [280]
	Prunus padus L.		Prunus_padus_plg.shp Prunus_padus_plg_clip.shp Prunus_padus_pnt.shp	[9] [23] [42] [47] [54] [55] [72] [84] [115] [116] [121] [37] [123] [147] [151] [152] [173] [194] [198] [204] [212] [211] [214] [215] [238] [248] [251] [255] [258] [260] [265] [267] [268] [273] [275] [276] [280]

FAMILY	SPECIES	SUBSPECIES	FILES	REFERENCES
Sapindaceae	*Acer campestre* L.		Acer_campestre_plg.shp Acer_campestre_plg_clip.shp Acer_campestre_pnt.shp Acer_campestre_syn_pnt.shp	[23] [44] [29] [42] [47] [49] [51] [54] [72] [84] [92] [115] [121] [123] [147] [152] [189] [194] [198] [203] [207] [212] [211] [214] [215] [237] [238] [248] [251] [255] [259] [260] [265] [267] [273] [275] [280]
	Acer monspessulanum L.		Acer_monspessulanum_plg.shp Acer_monspessulanum_plg_clip.shp Acer_monspessulanum_pnt.shp	[45] [123] [142] [145] [189] [194] [203] [208] [214] [215] [218] [237] [255] [265]
	Acer pseudoplatanus L.		Acer_pseudoplatanus_plg.shp Acer_pseudoplatanus_plg_clip.shp Acer_pseudoplatanus_pnt.shp Acer_pseudoplatanus_syn_pnt.shp	[17] [23] [44] [29] [47] [49] [54] [72] [84] [114] [115] [123] [147] [157] [173] [194] [198] [203] [212] [211] [214] [215] [237] [238] [248] [251] [255] [259] [260] [265] [267] [268] [273] [275] [280]
	Acer platanoides L.		Acer_platanoides_plg.shp Acer_platanoides_plg_clip.shp Acer_platanoides_pnt.shp Acer_platanoides_syn_pnt.shp	[9] [23] [44] [29] [42] [47] [49] [54] [72] [115] [84] [121] [123] [147] [151] [152] [173] [194] [198] [203] [212] [211] [214] [215] [237] [238] [248] [251] [259] [260] [265] [267] [268] [273] [280]
	Aesculus hippocastanum L.		Aesculus_hippocastanum_plg.shp Aesculus_hippocastanum_pnt.shp	[6] [25] [223] [222] [254]
Aquifoliaceae	*Ilex aquifolium* L.		Ilex_aquifolium_plg.shp Ilex_aquifolium_plg_clip.shp Ilex_aquifolium_pnt.shp Ilex_aquifolium_syn_pnt.shp	[44] [29] [42] [47] [54] [61] [72] [115] [84] [37] [123] [147] [151] [152] [189] [194] [198] [203] [212] [211] [214] [215] [237] [238] [248] [251] [255] [260] [265] [267] [275] [280]
Buxaceae	*Buxus sempervirens* L.		Buxus_sempervirens_plg.shp Buxus_sempervirens_pnt.shp	[78] [79] [85]
	Buxus balearica Lam.		Buxus_balearica_plg.shp Buxus_balearica_pnt.shp	[39] [79] [175] [176]
Celastraceae	*Euonymus europaeus* L.		Euonymus_europaeus_plg.shp Euonymus_europaeus_plg_clip.shp Euonymus_europaeus_pnt.shp Euonymus_europaeus_syn_pnt.shp	[44] [29] [47] [54] [72] [147] [151] [152] [173] [194] [198] [212] [211] [214] [215] [238] [251] [255] [259] [260] [265] [267] [273] [275] [276] [280]
Rhamnaceae	*Frangula alnus* Mill.		Frangula_alnus_plg.shp Frangula_alnus_plg_clip.shp Frangula_alnus_pnt.shp	[44] [29] [42] [72] [115] [84] [121] [123] [147] [151] [152] [173] [189] [194] [198] [203] [212] [211] [214] [215] [237] [238] [248] [251] [255] [259] [260] [265] [268] [273] [275] [276] [280]
Malvaceae	*Tilia cordata* Mill.		Tilia_cordata_plg.shp Tilia_cordata_plg_clip.shp Tilia_cordata_pnt.shp Tilia_cordata_syn_pnt.shp	[9] [17] [23] [44] [29] [42] [47] [54] [72] [84] [102] [115] [121] [123] [147] [151] [152] [173] [194] [198] [203] [212] [211] [214] [215] [238] [248] [251] [259] [260] [265] [267] [268] [273] [275] [280] [297]

FAMILY	SPECIES	SUBSPECIES	FILES	REFERENCES
	Tilia platyphyllos Scop.		Tilia_platyphyllos_plg.shp Tilia_platyphyllos_plg_clip.shp Tilia_platyphyllos_pnt.shp Tilia_platyphyllos_syn_pnt.shp	[17] [23] [44] [29] [42] [47] [54] [61] [65] [72] [84] [103] [115] [37] [123] [147] [151] [152] [194] [198] [203] [212] [211] [214] [215] [221] [227] [237] [238] [248] [251] [259] [260] [265] [267] [268] [273] [275] [280]
	Tilia tomentosa Moench		Tilia_tomentosa_plg.shp Tilia_tomentosa_plg_clip.shp Tilia_tomentosa_pnt.shp	[23] [29] [42] [115] [194] [203] [215] [259]
Cornaceae	*Cornus mas* L.		Cornus_mas_plg.shp Cornus_mas_plg_clip.shp Cornus_mas_pnt.shp Cornus_mas_syn_pnt.shp	[23] [44] [29] [42] [47] [49] [61] [72] [37] [123] [147] [194] [203] [212] [211] [214] [215] [248] [251] [259] [260] [265] [267] [275] [276] [280]
	Cornus sanguinea L.		Cornus_sanguinea_plg.shp Cornus_sanguinea_plg_clip.shp Cornus_sanguinea_pnt.shp	[44] [29] [42] [47] [49] [54] [72] [70] [84] [123] [147] [151] [173] [177] [189] [194] [198] [203] [212] [211] [214] [237] [238] [248] [251] [255] [259] [260] [265] [267] [268] [273] [275] [276] [280]
Ericaceae	*Arbutus unedo* L.		Arbutus_unedo_plg.shp Arbutus_unedo_plg_clip.shp Arbutus_unedo_pnt.shp Arbutus_unedo_syn_pnt.shp	[17] [23] [44] [29] [47] [54] [123] [189] [194] [198] [203] [212] [211] [215] [237] [238] [249] [255] [265] [275]
Oleaceae	*Fraxinus angustifolia* Vahl		Fraxinus_angustifolia_plg.shp Fraxinus_angustifolia_plg_clip.shp Fraxinus_angustifolia_pnt.shp	[17] [23] [29] [42] [47] [54] [65] [77] [115] [37] [123] [133] [148] [157] [189] [194] [198] [203] [215] [231] [232] [237] [238] [248] [255] [259] [265] [266] [275] [276]
	Fraxinus excelsior L.		Fraxinus_excelsior_plg.shp Fraxinus_excelsior_plg_clip.shp Fraxinus_excelsior_pnt.shp Fraxinus_excelsior_syn_pnt.shp	[9] [17] [44] [29] [42] [47] [54] [61] [72] [84] [103] [115] [121] [37] [123] [147] [151] [152] [173] [194] [198] [203] [212] [211] [215] [237] [238] [246] [248] [251] [259] [260] [265] [267] [268] [273] [275] [276] [280]
	Fraxinus ornus L.		Fraxinus_ornus_plg.shp Fraxinus_ornus_plg_clip.shp Fraxinus_ornus_pnt.shp Fraxinus_ornus_syn_pnt.shp	[23] [44] [29] [42] [47] [54] [61] [71] [115] [189] [194] [198] [203] [212] [211] [214] [215] [237] [238] [248] [251] [259] [260] [265] [268] [275] [276] [280]
	Olea europaea L.	*Olea europaea cerasiformis* *Olea europaea europaea* *Olea europaea guanchica* *Olea europaea laperrinei* *Olea europaea maroccana*	Olea_europaea_cerasiformis_pnt.shp Olea_europaea_europaea_plg.shp Olea_europaea_europaea_plg_clip.shp Olea_europaea_europaea_pnt.shp Olea_europaea_europaea_syn_pnt.shp Olea_europaea_guanchica_pnt.shp Olea_europaea_laperrinei_plg.shp Olea_europaea_laperrinei_pnt.shp Olea_europaea_maroccana_pnt.shp	[20] [29] [42] [47] [54] [65] [123] [157] [189] [194] [197] [198] [203] [215] [237] [238] [255] [265] [275]
Adoxaceae	*Sambucus nigra* L.		Sambucus_nigra_plg.shp Sambucus_nigra_plg_clip.shp Sambucus_nigra_pnt.shp Sambucus_nigra_syn_pnt.shp	[9] [44] [29] [42] [47] [54] [65] [72] [84] [123] [147] [151] [152] [173] [189] [194] [198] [202] [212] [211] [237] [238] [248] [251] [255] [259] [260] [265] [267] [268] [273] [275] [276] [280]

5. NOMENCLATURE AND SYNONYMS

Table 2 provides the used nomenclature of mapped species and subspecies. When a specific bibliographic source is not cited, all scientific Latin names followed the accepted nomenclature provided by The Plant List (www.theplantlist.org). In the table encountered Homotypic, or nomenclatural synonyms (different taxonomic names used referring to the same taxon), and heterotypic, or taxonomic synonyms (taxonomic names of taxa considered part of a different taxon), are also listed.

Table 2: *Taxonomy of mapped species with infra-specific taxa and with synonyms.*

SPECIES AND TAXONOMY REFERENCE	USED INFRASPECIFIC TAXA	HOMOTYPIC SYNONYMS	HETEROTYPIC SYNONYMS
Abies pinsapo Boiss. [118]	*A. p.* var. *pinsapo*		
	A. p. var. *marocana* (Trab.) Ceballos & Bolaño	*A. marocana* Trab.	
Abies nordmanniana (Steven) Spach [118]	*A. n.* subsp. *nordmanniana*		*A. bornmuelleriana* Mattf.
	A. n. subsp. *equi-trojani* (Asch. & Sint. ex Boiss.) Coode & Cullen	*A. equi-trojani* (Asch. & Sint. ex Boiss.) Mattf.	
Cedrus libani A.Rich. [118]	*C. l.* var. *libani*		
	C. l. var. *brevifolia* Hook.f.	*C. brevifolia* (Hook.f.) Elwes & A.Henry	
Larix decidua Mill. [118]	*L. d.* subsp. *decidua*		
	L. d. subsp. *carpatica* Domin		
	L. d. subsp. *polonica* (Racib. ex Wóycicki) Ostenf. & Syrach		
Pinus brutia Ten. [118]	*P. b.* var. *brutia*		
	P. b. var. *pityusa* (Steven) Silba		
	P. b. var. *eldarica* (Medw.) Silba		
	P. b. var. *pendulifolia* Frankis		
Pinus heldreichii H.Christ			*P. leucodermis* Antoine
Pinus nigra J.F. Arnold [235]	*P. n.* subsp. *nigra*		
	P. n. subsp. *salzmannii* (Dunal) Franco		*P. n.* subsp. *mauretanica* (Maire & Peyerimh) Heywood
	P. n. subsp. *laricio* Maire		*P. n.* subsp. *calabrica* (Loud.) Murray
	P. n. subsp. *dalmatica* (Vis.) Franco		
	P. n. subsp. *pallasiana* (D. Don) Holmboe		*P. n.* subsp. *nigra* var. *caramanica* (Loud.) Rehder
Pinus sylvestris L.			*P. hamata* (Steven) Sosn.
Pinus mugo Turra [118]	*P. m.* subsp. *mugo*		
	P. m. subsp. *uncinata* (DC.) Domin	*P. uncinata* DC	
	P. m. subsp. *rotundata* (Link) Janch. & H. Neumayer	*P. rotundata* Link	
Cupressus dupreziana A.Camus	*C. d.* var. *dupreziana* A.Camus		
	C. d. var. *atlantica* (Gaussen) Silba	*C. atlantica* Gaussen	
Juniperus communis L.			*J. sibirica* Burgsd. *J. montana* (Aiton) Lindl. & Gordon *J. oblonga* M.Bieb. *J. pygmaea* K.Koch *J. c.* var. *nipponica* (Maxim.) E.H.Wilson
Juniperus polycarpos K.Koch [150]	*J. p.* var. *polycarpos* K.Koch	*J. excelsa* var. *polycarpos* (K.Koch) Silba	

SPECIES AND TAXONOMY REFERENCE	USED INFRASPECIFIC TAXA	HOMOTYPIC SYNONYMS	HETEROTYPIC SYNONYMS
	J. p. var. *turcomanica* (B.Fedtsch.) R.P.Adams	*J. turcomanica* B.Fedtsch. *J. excelsa* subsp. *turcomanica* (B.Fedtsch.) Imkhan.	
Juniperus seravschanica Kom.		*J. excelsa* var. *seravschanica* (Kom.) Imkhan. *J. polycarpos* var. textitseravschanica (Kom.) Kitam.	
Populus tremula L.			*P. davidiana* Dode
Betula pendula Roth		*B. verrucosa* Ehrh.	*B. platyphylla* Sukaczev *B. szechuanica* (C.K.Schneid.) C.-A.Jansson *B. aetnensis* Raf.
Betula pubescens Ehrh.		*B. alba* L.	*B. litwinowii* Doluch. *B. browicziana* Güner *B. recurvata* (I.V.Vassil.) V.N.Vassil.
Alnus glutinosa (L.) Gaertn.			*A. barbata* C.A.Mey.
Alnus incana (L.) Moench [152]	*A. i.* subsp. *incana*		*A. kolaensis* Orlova
	A. i. subsp. *rugosa* (Du Roi) R.T.Clausen	*A. rugosa* (Du Roi) Spreng.	
	A. i. subsp. *tenuifolia* (Nutt.) Breitung	*A. tenuifolia* Nutt.	
	A. i. subsp. *hirsuta* (Spach) Á.Löve & D.Löve	*A. hirsuta* (Spach) Rupr.	*A. tinctoria* Sarg.
Alnus viridis (Chaix) DC. [30]	*A. v.* subsp. *viridis*		
	A. v. subsp. *fruticosa* (Rupr.) Nyman	*A. fruticosa* Rupr.	*A. mandshurica* (Callier) Hand.-Mazz. *A. kamtschatica* (Regel) Kudô ex Masam. *A. maximowiczii* Callier
	A. v. subsp. *sinuata* (Regel) Á.Löve & D.Löve	*A. sinuata* (Regel) Rydb.	
	A. v. subsp. *crispa* (Aiton) Turrill	*A. crispa* (Aiton) Pursh	
	A. v. subsp. *suaveolens* (Req.) P.W.Ball		
Fagus sylvatica L. [75]	*F. s.* subsp. *sylvatica*		
	F. s. subsp. *orientalis* (Lipsky) Greuter & Burdet	*F. orientalis* Lipsky	
Quercus coccifera L.		*Q. calliprinos* Webb.	
Quercus ilex L. [272]	*Q. i.* subsp. *ilex*		
	Q. i. subsp. *rotundifolia* (Lam.) O.Schwarz ex Tab.Morais	*Q. rotundifolia* Lam. *Q. ballota* Desf.	
Quercus petraea (Matt.) Liebl.			*Q. iberica* Steven ex M.Bieb.
Quercus robur L.			*Q. longipes* Steven *Q. pedunculata* Ehrh.
Quercus trojana Webb. [300]	*Q. t.* subsp. *trojana*		
	Q. t. subsp. *yaltirikii* Ziel., Petrova & D. Tomasz.		
	Q. t. subsp. *euboica* (Papaioann.) K.I.Chr.		
Sorbus aucuparia L.			*Sorbus sibirica* Hedl. *Sorbus pohuashanensis* (Hance) Hedl.
Prunus avium (L.) L.		*Cerasus avium* (L.) Moench	
Prunus padus L.		*Padus avium* Mill.	
Acer monspessulanum L.			*Acer ibericum* Mill.
Frangula alnus Mill.		*Rhamnus frangula* L.	
Olea europaea L. [139]	*O. e.* subsp. *europaea*		

SPECIES AND TAXONOMY REFERENCE	USED INFRASPECIFIC TAXA	HOMOTYPIC SYNONYMS	HETEROTYPIC SYNONYMS
	O. e. subsp. *laperrinei* (Batt. & Trab.) Cif.		
	O. e. subsp. *cerasiformis* G.Kunkel & Sunding		
	O. e. subsp. *guanchica* P.Vargas & al.		
	O. e. subsp. *maroccana* (Greuter & Burdet) P.Vargas & al.		
Fraxinus angustifolia L.			*Fraxinus oxycarpa* Willd. *Fraxinus syriaca* Boiss.

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