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 [149] 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. [188] 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 [65] to [92]).

2. **Continental maps**: the most important sources covering the European continent are two. The first is Atlas Florae Europaeae (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 [153]. The second source is the Map of Natural Vegetation of Europe [33], 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. [172]. 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) [231][232][233]. 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](http://www.gbif.org)) represents the largest open repository for species occurrences, where over 600 million of records in nearly 30,000 datasets 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 in the GBIF database were used in the presented dataset. The selected datasets were created by academic or national organizations (museums, universities, national inventories or projects) covering only specific countries (from [107] to [133]). 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 [182]. 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 [96], 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 [93].

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 [236][177][175][176]. 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 [222] 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 a chorological map of 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, expert interpretation and comparison of all the other sources in the same area and finally due to the limited precision of the manual digitalization 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 (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 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:
- **Pinaceae**

  - **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 comprising all the 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                              | [12] [14] [18] [29] [33] |
|         |                             |            | Abies_alba_pnt.shp                              | [35] [41] [46] [93] [88] |
|         |                             |            | Abies_alba_syn_pnt.shp                          | [96] [104] [107] [110] |
|         |                             |            | Abies_alba_syn_plg.shp                          | [111] [112] [114] [116] |
|         |                             |            | Abies_alba_syn_plg_clip.shp                     | [117] [118] [119] [121] |
|         | Abies cephalonica Loudon    |            | Abiescephalonica_plg.shp                        | [93] [96] [235] |
|         |                             |            | Abiescephalonica_plg_clip.shp                   | [258] |
|         | Abies borisii-regis Mattf.  |            | Abies_borisiregis_plg.shp                       | [13] [31] [93] [96] [235] |
|         | Abies pinsapo Boiss.        | Abies pinsapo marocana | Abies_pinsapo_marocana_plg.shp | [96] [101] [145] |
|         |                             | Abies pinsapo pinsapo | Abies_pinsapo_pinsapo_plg.shp | [13] [21] [33] [36] [43] |
|         | Abies numidica Mill.        |            | Abies_numidica_plg.shp                          | [101] |
|         | Abies nebrodensis Mill.     |            | Abies_nebrodensis_plg.shp                       | [247] |
|         | Abies cilicica Mill.        |            | Abies_cilicica_plg.shp                          | [36] [50] [101] [93] [96] |
|         | Abies nordmanniana (Steven) Spach | Abies nordmanniana | Abies_nordmanniana_equi-trojani_plg.shp | [13] [21] [33] [36] [43] |
|         |                             | Abies nordmanniana nordmanniana                 | Abies_nordmanniana_nordmanniana_plg.shp | [242] |
|         | Picea abies (L.) H.Karst.   |            | Picea_abies_plg.shp                              | [29] [34] [35] |
|         |                             |            | Picea_abies_plg_clip.shp                         | [58] [65] [93] [96] [107] |
|         |                             |            | Picea_abies_pnt.shp                              | [111] [112] [114] [115] |
|         |                             |            | Picea_abies_syn_plg.shp                          | [117] [118] [119] [121] |
|         |                             |            | Picea_abies_syn_plg_clip.shp                     | [123] [124] [125] [127] |
|         |                             |            | Picea_abies_syn_pnt.shp                          | [128] [129] [130] [131] |
|         |                             |            | Picea_abies_syn_pnt_clip.shp                     | [132] [133] [146] [153] |
|         | Picea omorika (Pancic) Purk.|            | Picea_omorika_plg.shp                            | [9] [93] [96] [195] [234] |
|         |                             |            | Picea_omorika_pnt.shp                            | [182] [197] [248] |
|         | Larix decidua Mill.         | Larix decidua decidua | Larix_decidua_decidua_plg.shp | [33] [46] [77] [93] [96] |
|         |                             | Larix decidua carpathica | Larix_decidua_carpathica_plg.shp | [182] [197] [248] |
|         |                             | Larix decidua polonica | Larix_decidua_polonica_pnt.shp | [33] [46] [77] [93] [96] |
|         | Pinus halepensis (L.) Mill. | Pinus halepensis              | Pinus_halepensis_plg.shp                        | [21] [33] [41] [47] [48] |
|         |                             | Pinus halepensis              | Pinus_halepensis_plg_clip.shp                   | [67] [93] [96] [98] [108] |
|         |                             | Pinus halepensis              | Pinus_halepensis_pnt.shp                        | [113] [118] [122] [124] |
|         |                             | Pinus halepensis              | Pinus_halepensis_pnt_clip.shp                   | [126] [131] [132] [145] |
|         |                             | Pinus halepensis              | Pinus_halepensis_pnt_clip.shp                   | [153] [182] [198] [218] |
|         | Pinus heldreichii H.Chris.  |            | Pinus_heldreichii_plg.shp                        | [19] [23] [47] [105] |
|         |                             |            | Pinus_heldreichii_pnt.shp                        | [187] [235] [244] [245] |
|         | Pinus brutia Ten.            | Pinus brutia brutia           | Pinus_brutia_brutia_plg.shp                     | [21] [33] [47] [48] [69] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_brutia_plg_clip.shp                | [93] [96] [126] [153] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_brutia_pnt.shp                     | [182] [205] [231] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_brutia_pnt_clip.shp                | [21] [33] [47] [48] [69] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_pendulifolia_plg.shp              | [13] [21] [33] [36] [43] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_pendulifolia_pnt.shp              | [24] [36] [38] [93] [96] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_pendulifolia_pnt_clip.shp         | [123] [124] [126] [131] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_pendulifolia_pnt_clip.shp         | [123] [124] [126] [131] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_pendulifolia_pnt_clip.shp         | [123] [124] [126] [131] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_pendulifolia_pnt_clip.shp         | [123] [124] [126] [131] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_pendulifolia_pnt_clip.shp         | [123] [124] [126] [131] |
|         |                             | Pinus brutia brutia           | Pinus_brutia_pendulifolia_pnt_clip.shp         | [123] [124] [126] [131] |
| FAMILY | SPECIES | SUBSPECIES | FILES | REFERENCES |
|--------|---------|------------|-------|------------|
| Juniperus communis | Pinus_pinea_plg.shp | 12 | [21] [41] [47] [48] |
| | Pinus_pinea_plg_clip.shp | 66 | [93] [96] [98] [108] |
| | Pinus_pinea_plg_clip.shp | 113 | [118] [122] [124] |
| | Pinus_pinea_plg_clip.shp | 126 | [131] [153] [182] |
| | Pinus_pinea_pnt.shp | 198 | [218] [230] [237] |

| Pinus sylvestris L. | Pinus_sylvestris_plg.shp | 6 | [18] [24] [29] [33] |
| | Pinus_sylvestris_plg_clip.shp | 35 | [46] [47] [65] [93] |
| | Pinus_sylvestris_pnt.shp | 94 | [96] [97] [107] |
| | Pinus_sylvestris_pnt.shp | 108 | [113] [111] [111] |
| | Pinus_sylvestris_pnt.shp | 114 | [105] [117] [116] |
| | Pinus_sylvestris_pnt.shp | 119 | [121] [122] [123] |
| | Pinus_sylvestris_pnt.shp | 124 | [125] [127] [128] |
| | Pinus_sylvestris_pnt.shp | 129 | [130] [131] [132] |
| | Pinus_sylvestris_pnt.shp | 133 | [139] [148] [149] |
| | Pinus_sylvestris_pnt.shp | 150 | [200] [153] [155] |
| | Pinus_sylvestris_pnt.shp | 182 | [190] [197] [200] |
| | Pinus_sylvestris_pnt.shp | 198 | [218] [230] [237] |

| Pinus cembra L. | Pinus_cembra_plg.shp | 32 | [33] [46] [90] [93] |
| | Pinus_cembra_pnt.shp | 96 | [179] [182] [197] |
| | Pinus_cembra_pnt.shp | 224 | [237] |

| Cupressus sempervirens L. | Cupressus_sempervirens_plg.shp | 55 | [93] [96] [108] |
| | Cupressus_sempervirens_plg_clip.shp | 113 | [118] [121] [122] |
| | Cupressus_sempervirens_pnt.shp | 126 | [127] [131] [136] |
| | Cupressus_sempervirens_pnt.shp | 182 | [124] [127] [131] |
| | Cupressus_sempervirens_pnt.shp | 132 | [153] [182] [197] |
| | Cupressus_sempervirens_med_plg_clip.shp | 198 | [218] [230] [237] |
| | Cupressus_sempervirens_med_plg_clip.shp | 218 | [230] [231] [237] |

| Juniperus communis L. | Juniperus_commoninis_plg.shp | 3 | [12] [21] [24] [29] |
| | Juniperus_commoninis_plg_clip.shp | 33 | [35] [36] [41] [42] |
| | Juniperus_commoninis_pnt.shp | 46 | [50] [61] [94] [96] |
| | Juniperus_commoninis_pnt.shp | 107 | [108] [111] [112] |
| | Juniperus_commoninis_pnt.shp | 113 | [114] [115] [118] |
| | Juniperus_commoninis_pnt.shp | 117 | [119] [120] [123] |
| | Juniperus_commoninis_pnt.shp | 122 | [123] [124] [125] |
| | Juniperus_commoninis_pnt.shp | 127 | [128] [129] [130] |
| | Juniperus_commoninis_pnt.shp | 131 | [132] [133] [141] |
| | Juniperus_commoninis_pnt.shp | 148 | [149] [153] [162] |
| | Juniperus_commoninis_pnt.shp | 165 | [171] [190] [197] |
| | Juniperus_commoninis_pnt.shp | 198 | [214] [218] [223] |
| | Juniperus_commoninis_pnt.shp | 230 | [231] [235] [237] |

| Juniperus phoenicea L. | Juniperus_phoenicea_plg.shp | 5 | [21] [33] [36] [48] |
| | Juniperus_phoenicea_plg_clip.shp | 61 | [96] [98] [104] |
| | Juniperus_phoenicea_plg_clip.shp | 108 | [113] [118] [122] |
| | Juniperus_phoenicea_pnt.shp | 124 | [126] [127] [131] |
| | Juniperus_phoenicea_pnt.shp | 153 | [152] [183] [198] |
| | Juniperus_phoenicea_pnt.shp | 218 | [230] [235] [237] |
| FAMILY       | SPECIES           | SUBSPECIES | FILES                                  | REFERENCES |
|-------------|------------------|------------|----------------------------------------|------------|
|             | Juniperus thurifera L. |            | Juniperus_thurifera_plg.shp            | [12] [33] [61] [96] [104] |
|             |                  |            | Juniperus_thurifera_pnt.shp            | [108] [118] [122] [124] |
|             |                  |            |                                        | [131] [153] [182] [218] |
|             |                  |            |                                        | [237]      |
| Taxaceae    | Taxus baccata L.  |            | Taxus_baccata_plg.shp                  | [12] [18] [21] [25] [29] |
|             |                  |            | Taxus_baccata_plg_clip.shp             | [33] [36] [35] [41] [46] |
|             |                  |            | Taxus_baccata_pnt.shp                  | [61] [93] [96] [107] |
|             |                  |            | Taxus_baccata_syn_plg.shp              | [108] [109] [110] [111] |
|             |                  |            | Taxus_baccata_syn_plg_clip.shp         | [112] [113] [114] [117] |
|             |                  |            | Taxus_baccata_syn_pnt.shp              | [118] [119] [121] [122] |
|             |                  |            |                                        | [123] [124] [125] [127] |
|             |                  |            |                                        | [128] [129] [130] [131] |
|             |                  |            |                                        | [132] [133] [148] [149] |
|             |                  |            |                                        | [153] [182] [190] [197] |
|             |                  |            |                                        | [198] [205] [213] [218] |
|             |                  |            |                                        | [226] [235] [230] [231] |
|             |                  |            |                                        | [237] [254] |
| Salicaceae  | Salix alba L.     |            | Salix_alba_plg.shp                     | [21] [35] [93] [156] |
|             |                  |            | Salix_alba_plg_clip.shp                | [190] [228] |
|             |                  |            | Salix_alba_pnt.shp                     | [10]          |
|             | Salix caprea L.   |            | Salix_caprea_plg.shp                   | [35] [42] [93] [94] [107] |
|             |                  |            | Salix_caprea_plg_clip.shp              | [108] [111] [112] [113] |
|             |                  |            | Salix_caprea_pnt.shp                   | [114] [115] [118] [117] |
|             |                  |            |                                        | [119] [121] [122] [123] |
|             |                  |            |                                        | [124] [125] [126] [127] |
|             |                  |            |                                        | [129] [130] [131] [132] |
|             |                  |            |                                        | [132] [148] [149] [154] |
|             |                  |            |                                        | [156] [190] [218] [228] |
|             |                  |            |                                        | [231] [237] |
| Populus alba L. | Populus_alba_plg.shp |         |                                        | [21] [33] [35] [46] [93] |
|             |                  |            | Populus_alba_plg_clip.shp              | [94] [107] [108] [111] |
|             |                  |            | Populus_alba_pnt.shp                   | [112] [113] [114] [118] |
|             |                  |            |                                        | [117] [119] [121] [122] |
|             |                  |            |                                        | [123] [124] [125] [126] |
|             |                  |            |                                        | [127] [128] [129] [130] |
|             |                  |            |                                        | [131] [132] [133] [151] |
|             |                  |            |                                        | [154] [182] [197] [218] |
|             |                  |            |                                        | [230] [231] [237] |
| Populus nigra L. | Populus_nigra_plg.shp |         |                                        | [21] [35] [52] [93] [94] |
|             |                  |            | Populus_nigra_plg_clip.shp             | [107] [108] [111] [112] |
|             |                  |            | Populus_nigra_pnt.shp                  | [113] [114] [118] [117] |
|             |                  |            |                                        | [119] [121] [122] [124] |
|             |                  |            |                                        | [125] [126] [127] [128] |
|             |                  |            |                                        | [129] [130] [131] [132] |
|             |                  |            |                                        | [133] [154] [182] [190] |
|             |                  |            |                                        | [197] [218] [230] [237] |
| Populus tremula L. | Populus_tremula_plg.shp |    |                                        | [6] [21] [29] [33] [35] |
|             |                  |            | Populus_tremula_plg_clip.shp           | [41] [42] [51] [71] [93] |
|             |                  |            | Populus_tremula_pnt.shp                | [94] [107] [108] [111] |
|             |                  |            |                                        | [112] [114] [115] [118] |
|             |                  |            |                                        | [117] [119] [121] [122] |
|             |                  |            |                                        | [123] [124] [125] [127] |
|             |                  |            |                                        | [128] [129] [130] [131] |
|             |                  |            |                                        | [132] [133] [146] [149] |
|             |                  |            |                                        | [154] [156] [182] [190] |
|             |                  |            |                                        | [217] [218] [230] [237] |
| Juglandaceae| Juglans regia L.  |            | Juglans_regia_plg.shp                  | [16] [27] [35] [37] [46] |
|             |                  |            | Juglans_regia_plg_clip.shp             | [94] [102] [103] [104] |
|             |                  |            | Juglans_regia_pnt.shp                  | [106] [107] [126] [135] |
|             |                  |            |                                        | [136] [152] [154] [157] |
|             |                  |            |                                        | [158] [169] [182] [197] |
|             |                  |            |                                        | [199] [202] [210] [211] |
|             |                  |            |                                        | [221] [230] [235] [249] |
|             |                  |            |                                        | [250] [253] |
| Betulaceae  | Betula pendula Roth |        | Betula_pendula_plg.shp                 | [6] [21] [33] [35] [36] |
|             |                  |            | Betula_pendula_plg_clip.shp            | [41] [67] [93] [94] [107] |
|             |                  |            | Betula_pendula_pnt.shp                 | [111] [112] [113] [114] |
|             |                  |            |                                        | [115] [116] [118] [117] |
|             |                  |            |                                        | [119] [120] [121] [122] |
|             |                  |            |                                        | [123] [124] [125] [127] |
|             |                  |            |                                        | [128] [129] [130] [131] |
|             |                  |            |                                        | [132] [133] [146] [149] |
|             |                  |            |                                        | [154] [182] [190] [198] |
|             |                  |            |                                        | [218] [226] [230] [237] |
|             |                  |            |                                        | [235] [255] |
| FAMILY          | SPECIES                  | SUBSPECIES          | FILES                                                   | REFERENCES |
|-----------------|--------------------------|---------------------|---------------------------------------------------------|------------|
| Carpinus        | betulus L.               |                     | Carpinus_betulus_plg.shp                                | [21] [24]  |
|                 |                          |                     | Carpinus_betulus_plg_clip.shp                           | [33] [35]  |
|                 |                          |                     | Carpinus_betulus_pnt.shp                                | [36]       |
|                 |                          |                     | Carpinus_betulus_syn_pnt.shp                            | [36]       |
| Carpinus        | orientalis Mill.         |                     | Carpinus_orientalis_plg.shp                             | [21] [25]  |
|                 |                          |                     | Carpinus_orientalis_plg_clip.shp                         | [33] [36]  |
|                 |                          |                     | Carpinus_orientalis_pnt.shp                              | [41]       |
|                 |                          |                     | Carpinus_orientalis_syn_pnt.shp                          | [41]       |
| Ostrya carpinifolia Scop. |                  |                     | Ostrya_carpinifolia_plg.shp                             | [21] [33]  |
|                 |                          |                     | Ostrya_carpinifolia_plg_clip.shp                         | [36] [41]  |
|                 |                          |                     | Ostrya_carpinifolia_pnt.shp                              | [51]       |
|                 |                          |                     | Ostrya_carpinifolia_syn_pnt.shp                          | [51]       |
| Corylus avellana L. |                  |                     | Corylus_avellana_plg.shp                                | [6] [21]  |
|                 |                          |                     | Corylus_avellana_plg_clip.shp                            | [33] [36]  |
|                 |                          |                     | Corylus_avellana_pnt.shp                                 | [51]       |
|                 |                          |                     | Corylus_avellana_syn_pnt.shp                             | [51]       |

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| FAMILY     | SPECIES               | SUBSPECIES          | FILES                                                                 | REFERENCES |
|------------|----------------------|---------------------|----------------------------------------------------------------------|------------|
| Fagaceae   | Fagus sylvatica L.   |                     | Fagus_sylvatica_orientalis_plg.shp                                  | [6] [12] [18] [21] [29] |
|            |                      |                     | Fagus_sylvatica_orientalis_plg_clip.shp                             | [33] [35] [36] [41] [51] |
|            |                      |                     | Fagus_sylvatica_orientalis_pnt.shp                                  | [36] [72] [83] [93] [98] |
|            |                      |                     | Fagus_sylvatica_sylvatica_plg.shp                                  | (107) [108] [111] [112] |
|            |                      |                     | Fagus_sylvatica_sylvatica_plg_clip.shp                             | [114] [118] [117] [119] |
|            |                      |                     | Fagus_sylvatica_sylvatica_pnt.shp                                  | [120] [121] [122] [124] |
|            |                      |                     | Fagus_sylvatica_sylvatica_syn_pnt.shp                              | [125] [127] [128] [129] |
|            |                      |                     | Fagus_sylvatica_sylvatica_sylvatica_syn_pnt.shp                   | (130) [131] [132] [133] |
|            |                      |                     |                                                                     | (139) [148] [149] [154] |
|            |                      |                     |                                                                     | (182) [187] [186] [232] |
|            |                      |                     |                                                                     | 237        |
| Castanea sativa Mill. |                |                     | Castanea_sativa_plg.shp                                            | [6] [12] [18] [21] [24] |
|            |                      |                     | Castanea_sativa_plg_clip.shp                                       | [20] [35] [36] [41] [45] |
|            |                      |                     | Castanea_sativa_pnt.shp                                            | [46] [51] [74] [93] [98] |
|            |                      |                     | Castanea_sativa_syn_plg.shp                                        | [107] [108] [111] [112] |
|            |                      |                     | Castanea_sativa_syn_plg_clip.shp                                   | [113] [114] [116] [117] |
|            |                      |                     | Castanea_sativa_syn_pnt.shp                                        | [118] [119] [121] [122] |
|            |                      |                     |                                                                     | [124] [127] [130] [131] |
|            |                      |                     |                                                                     | [132] [133] [139] [154] |
|            |                      |                     |                                                                     | [164] [174] [190] [197] |
|            |                      |                     |                                                                     | [198] [207] [218] [230] |
|            |                      |                     |                                                                     | [231] [237] |
| Quercus cerris L. |                |                     | Quercus_cerris_plg.shp                                             | [21] [24] [29] [35] [33] |
|            |                      |                     | Quercus_cerris_plg_clip.shp                                        | [36] [41] [46] [48] [51] |
|            |                      |                     | Quercus_cerris_pnt.shp                                             | [93] [107] [113] [112] |
|            |                      |                     | Quercus_cerris_syn_pnt.shp                                         | [114] [117] [121] [122] |
|            |                      |                     |                                                                     | [124] [127] [130] [132] |
|            |                      |                     |                                                                     | [133] [139] [154] [182] |
|            |                      |                     |                                                                     | [190] [197] [198] [235] |
|            |                      |                     |                                                                     | [237] [257] |
| Quercus frainetto Ten. |               |                     | Quercus_frainetto_plg.shp                                          | [2] [18] [21] [33] [51] |
|            |                      |                     | Quercus_frainetto_plg_clip.shp                                     | [93] [98] [154] [182] |
|            |                      |                     | Quercus_frainetto_pnt.shp                                          | [187] [198] [235] |
| Quercus coccifera L. |               |                     | Quercus_coccifera_plg.shp                                          | [1] [12] [18] [21] [33] |
|            |                      |                     | Quercus_coccifera_plg_clip.shp                                     | [48] [51] [93] [108] |
|            |                      |                     | Quercus_coccifera_pnt.shp                                          | [113] [118] [122] [124] |
|            |                      |                     |                                                                     | [126] [127] [131] [134] |
|            |                      |                     |                                                                     | [154] [181] [182] [190] |
|            |                      |                     |                                                                     | [196] [198] [218] [230] |
|            |                      |                     |                                                                     | [237] [239] |
| Quercus ilex L. |                    |                     | Quercus_ilex_ilex_plg.shp                                          | [12] [21] [33] [35] [46] |
| Quercus     | Quercus_ilex_ilex    |                     | Quercus_ilex_ilex_plg_clip.shp                                     | [49] [51] [93] [108] |
|             | ilex                 |                     | Quercus_ilex_pnt.shp                                               | [111] [112] [118] [122] |
|             |                      |                     | Quercus_ilex_syn_pnt.shp                                           | [124] [127] [131] [132] |
|             |                      |                     | Quercus_ilex_rotundifolia_plg.shp                                  | [146] [154] [182] [190] |
|             |                      |                     | Quercus_ilex_rotundifolia_plg_clip.shp                             | [192] [198] [215] [218] |
|             |                      |                     | Quercus_ilex_rotundifolia_pnt.shp                                  | [230] [235] [237] |
| Quercus suber L. |                |                     | Quercus_suber_plg.shp                                              | [12] [33] [76] [93] [108] |
|             |                      |                     | Quercus_suber_plg_clip.shp                                         | [113] [118] [122] [124] |
|             |                      |                     | Quercus_suber_pnt.shp                                              | [127] [131] [146] [154] |
|             |                      |                     | Quercus_suber_syn_pnt.shp                                          | [182] [198] [206] [218] |
|             |                      |                     |                                                                     | [230] [237] |
| Quercus petraea (Matt.) Liebl. |   |                     | Quercus_petraea_plg.shp                                            | [12] [18] [21] [29] [33] |
|             |                      |                     | Quercus_petraea_plg_clip.shp                                       | [35] [41] [46] [51] [66] |
|             |                      |                     | Quercus_petraea_pnt.shp                                            | [93] [107] [111] [112] |
|             |                      |                     |                                                                     | [114] [118] [117] [119] |
|             |                      |                     |                                                                     | [121] [122] [124] [125] |
|             |                      |                     |                                                                     | [127] [128] [130] [139] |
|             |                      |                     |                                                                     | [131] [132] [133] [139] |
|             |                      |                     |                                                                     | [148] [149] [154] [182] |
|             |                      |                     |                                                                     | [165] [186] [197] [198] |
|             |                      |                     |                                                                     | [218] [201] [226] [230] |
|             |                      |                     |                                                                     | [232] [237] |
| Quercus robur L. |                |                     | Quercus_robur_plg.shp                                              | [6] [12] [18] [21] [29] |
|             |                      |                     | Quercus_robur_plg_clip.shp                                         | [35] [35] [41] [46] [51] |
|             |                      |                     | Quercus_robur_pnt.shp                                              | [84] [93] [98] [107] |
|             |                      |                     |                                                                     | [108] [113] [112] [114] |
|             |                      |                     |                                                                     | [115] [118] [117] [119] |
|             |                      |                     |                                                                     | [121] [122] [123] [124] |
|             |                      |                     |                                                                     | [125] [127] [128] [129] |
|             |                      |                     |                                                                     | [130] [131] [132] [133] |
|             |                      |                     |                                                                     | [139] [142] [148] [149] |
|             |                      |                     |                                                                     | [154] [161] [182] [190] |
|             |                      |                     |                                                                     | [185] [197] [198] [218] |
|             |                      |                     |                                                                     | [230] [232] [237] |
| FAMILY       | SPECIES               | SUBSPECIES                  | FILES                                                                 | REFERENCES |
|-------------|-----------------------|-----------------------------|-----------------------------------------------------------------------|------------|
|             | *Platanus orientalis* |                             | [48x252]Platanus orientalis_plg.shp                                  |            |
|             |                       |                             | [48x411]Celtis australis_plg.shp                                     |            |
|             |                       |                             | [48x577]Ulmus glabra_plg.shp                                         |            |
|             |                       |                             | [48x765]FAMILY SPECIES SUBSPECIES FILES REFERENCES                    |            |
|             | *Sorbus aucuparia*    |                             | [106x157]Sorbus aucuparia_plg.shp                                    |            |
|             |                       |                             | [106x411]Quercus trojana_plg.shp                                     |            |
|             | *Ulmus minor*         |                             | [149x220](L.)Crantz Sorbus_aria_plg.shp                              |            |
|             |                       |                             | [149x411]Mill. Ulmus_laevis_plg.shp                                  |            |
|             |                       |                             | [149x577]Willd. Ulmus_glabra_plg.shp                                 |            |
|             | *Quercus pyrenaica*   |                             | [182x157]Quercus pyrenaica_plg.shp                                   |            |
|             |                       |                             | [182x411]Quercus pyrenaica_plg_clip.shp                             |            |
|             | *Quercus trojana*     |                             | [182x411]Quercus trojana_plg.shp                                     |            |
|             |                       |                             | [182x577]Quercus trojana_plg_clip.shp                               |            |
|             |                       |                             | [210x617]Quercus trojana_euboica_pnt.shp                            |            |
|             |                       |                             | [210x680]Quercus trojana_yaitirikii_plg.shp                          |            |
| Ulmaceae    | *Ulmus glabra*        |                             | [299x252]Ulmus glabra_plg.shp                                        |            |
|             |                       |                             | [299x411]Ulmus glabra_plg_clip.shp                                   |            |
|             |                       |                             | [299x577]Ulmus glabra_pnt.shp                                        |            |
|             |                       |                             | [299x765]Ulmaceae Ulmaceae Ulmus glabra Hud.s.                       |            |
|             | *Ulmus laevis*        |                             | [299x490]Ulmus laevis_plg.shp                                        |            |
|             |                       |                             | [299x577]Ulmus laevis_plg_clip.shp                                   |            |
|             |                       |                             | [299x765]Ulmus laevis_pnt.shp                                        |            |
|             |                       |                             | [299x93]Ulmus laevis_syn_pnt.shp                                     |            |
|             | *Ulmus minor*         |                             | [299x117]Ulmus minor_plg.shp                                         |            |
|             |                       |                             | [299x125]Ulmus minor_plg_clip.shp                                   |            |
|             |                       |                             | [299x125]Ulmus minor_pnt.shp                                        |            |
|             |                       |                             | [299x141]Ulmus minor_syn_pnt.shp                                     |            |
| Cannabaceae | *Celtis australis*    |                             | [299x188]Celtis australis_plg.shp                                    |            |
|             |                       |                             | [299x204]Celtis australis_plg_clip.shp                              |            |
|             |                       |                             | [299x220]Celtis australis_pnt.shp                                    |            |
|             |                       |                             | [299x237]Celtis australis_syn_pnt.shp                                |            |
| Altingiaceae| *Liquidambar orientalis* |                           | [299x283]Liquidambar orientalis_plg.shp                             |            |
|             |                       |                             | [299x307]Liquidambar orientalis_plg_clip.shp                        |            |
|             |                       |                             | [299x395]Liquidambar orientalis_pnt.shp                             |            |
| Platanaceae | *Platanus orientalis* |                             | [299x315]Platanus orientalis_plg.shp                                 |            |
|             |                       |                             | [299x331]Platanus orientalis_plg_clip.shp                           |            |
|             |                       |                             | [299x349]Platanus orientalis_pnt.shp                                 |            |
| Rosaceae    | *Sorbus aria*         |                             | [299x363]Sorbus aria_plg.shp                                         |            |
|             |                       |                             | [299x379]Sorbus aria_plg_clip.shp                                    |            |
|             |                       |                             | [299x395]Sorbus aria_pnt.shp                                         |            |
|             |                       |                             | [299x411]Sorbus aria_complex_plg.shp                                 |            |
|             | *Sorbus aucuparia*    |                             | [299x426]Sorbus aucuparia_plg.shp                                    |            |
|             |                       |                             | [299x442]Sorbus aucuparia_plg_clip.shp                              |            |
|             |                       |                             | [299x458]Sorbus aucuparia_pnt.shp                                    |            |
| FAMILY          | SPECIES              | SUBSPECIES | FILES                                                                 | REFERENCES |
|-----------------|----------------------|------------|----------------------------------------------------------------------|------------|
| **Sorbus**      | domestica (L.) Crantz|            | Sorbus_domestica_plg.shp                                            | [6]  [18]  |
|                 |                      |            | Sorbus_domestica_plg_clip.shp                                       | [21]  [26] |
|                 |                      |            | Sorbus_domestica_pnt.shp                                            | [29]  [108]|
|                 |                      |            |                                                                      | [111]  [113]|
|                 |                      |            |                                                                      | [119]  [121]|
|                 |                      |            |                                                                      | [124]  [127]|
|                 |                      |            |                                                                      | [131]  [133]|
|                 |                      |            |                                                                      | [178]  [190]|
|                 |                      |            |                                                                      | [198]  [218]|
|                 |                      |            |                                                                      | [230]  [232]|
|                 |                      |            |                                                                      | [237]      |
| **Sorbus**      | domestica L.         |            | Sorbus_domestica_plg.shp                                            | [6]  [21]  |
|                 |                      |            | Sorbus_domestica_plg_clip.shp                                       | [29]  [46]  |
|                 |                      |            | Sorbus_domestica_pnt.shp                                            | [46]  [91]  |
|                 |                      |            |                                                                      | [108]  [113]|
|                 |                      |            |                                                                      | [119]  [121]|
|                 |                      |            |                                                                      | [124]  [127]|
|                 |                      |            |                                                                      | [131]  [133]|
|                 |                      |            |                                                                      | [178]  [190]|
|                 |                      |            |                                                                      | [198]  [218]|
|                 |                      |            |                                                                      | [230]  [232]|
| **Prunus**      | avium (L.) L.        |            | Prunus_avium_plg.shp                                                | [12]  [21]  |
|                 |                      |            | Prunus_avium_plg_clip.shp                                           | [29]  [33]  |
|                 |                      |            | Prunus_avium_pnt.shp                                                | [46]  [108]|
|                 |                      |            |                                                                      | [111]  [113]|
|                 |                      |            |                                                                      | [118]  [121]|
|                 |                      |            |                                                                      | [122]  [124]|
|                 |                      |            |                                                                      | [129]  [131]|
|                 |                      |            |                                                                      | [133]  [149]|
|                 |                      |            |                                                                      | [127]  [130]|
| **Prunus**      | spinosa L.           |            | Prunus_spinosa_plg.shp                                              | [6]  [33]  |
|                 |                      |            | Prunus_spinosa_plg_clip.shp                                         | [62]  [107]|
|                 |                      |            | Prunus_spinosa_pnt.shp                                              | [108]  |
|                 |                      |            |                                                                      | [111]  [113]|
|                 |                      |            |                                                                      | [118]  [121]|
|                 |                      |            |                                                                      | [122]  [124]|
|                 |                      |            |                                                                      | [129]  [131]|
|                 |                      |            |                                                                      | [133]  [149]|
|                 |                      |            |                                                                      | [127]  [130]|
| **Prunus**      | padus L.             |            | Prunus_padus_plg.shp                                                | [6]  [18]  |
|                 |                      |            | Prunus_padus_plg_clip.shp                                           | [29]  [33]  |
|                 |                      |            | Prunus_padus_pnt.shp                                                | [42]  [108]|
|                 |                      |            |                                                                      | [93]  [111]|
|                 |                      |            |                                                                      | [112]  [113]|
|                 |                      |            |                                                                      | [118]  [121]|
|                 |                      |            |                                                                      | [122]  [124]|
|                 |                      |            |                                                                      | [129]  [131]|
|                 |                      |            |                                                                      | [133]  [149]|
|                 |                      |            |                                                                      | [127]  [130]|
| **Sapindaceae** | Acer campestre L.    |            | Acer_campestre_plg.shp                                              | [18]  [21]  |
|                 |                      |            | Acer_campestre_plg_clip.shp                                         | [32]  [35]  |
|                 |                      |            | Acer_campestre_pnt.shp                                              | [40]      |
|                 |                      |            |                                                                      | [70]  [107]|
|                 |                      |            |                                                                      | [111]  [113]|
|                 |                      |            |                                                                      | [118]  [121]|
|                 |                      |            |                                                                      | [122]  [124]|
|                 |                      |            |                                                                      | [127]  [130]|
|                 |                      |            |                                                                      | [131]  [149]|
|                 |                      |            |                                                                      | [189]  [197]|
|                 |                      |            |                                                                      | [218]  [230]|
| **Acer**        | pseudoplatanus L.    |            | Acer_pseudoplatanus_plg.shp                                         | [12]  [21]  |
|                 |                      |            | Acer_pseudoplatanus_plg_clip.shp                                    | [35]  [92]  |
|                 |                      |            | Acer_pseudoplatanus_pnt.shp                                         | [108]  [111]|
|                 |                      |            |                                                                      | [112]  [116]|
|                 |                      |            |                                                                      | [127]  [129]|
|                 |                      |            |                                                                      | [131]  [182]|
|                 |                      |            |                                                                      | [197]  [218]|
| **Acer**        | platanoides L.       |            | Acer_platanoides_plg.shp                                            | [6]  [18]  |
|                 |                      |            | Acer_platanoides_plg_clip.shp                                       | [21]  [33]  |
|                 |                      |            | Acer_platanoides_pnt.shp                                            | [35]  [108]|
|                 |                      |            |                                                                      | [93]  [111]|
|                 |                      |            |                                                                      | [112]  [115]|
|                 |                      |            |                                                                      | [117]  [121]|
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|                 |                      |            |                                                                      | [129]  [130]|
|                 |                      |            |                                                                      | [133]  [149]|
|                 |                      |            |                                                                      | [189]  [197]|
| **Aesculus**    | hippocastanum L.     |            | Aesculus_hippocastanum_plg.shp                                      | [4]  [20]  |
|                 |                      |            | Aesculus_hippocastanum_pnt.shp                                      | [205] [204]|
|                 |                      |            |                                                                      | [229]      |
| **Aquifoliaceae**| Ilex aquifolium L.   |            | Ilex_aquifolium_plg.shp                                             | [21]  [29]  |
|                 |                      |            | Ilex_aquifolium_plg_clip.shp                                        | [32]  [35]  |
|                 |                      |            | Ilex_aquifolium_pnt.shp                                             | [46]  [111]|
|                 |                      |            |                                                                      | [93]  [108]|
|                 |                      |            |                                                                      | [112]  [114]|
|                 |                      |            |                                                                      | [117]  [121]|
|                 |                      |            |                                                                      | [124]  [129]|
|                 |                      |            |                                                                      | [131]  [148]|
|                 |                      |            |                                                                      | [182]  [197]|
|                 |                      |            |                                                                      | [218]  [230]|
|                 |                      |            |                                                                      | [237]      |
| FAMILY     | SPECIES                  | SUBSPECIES | FILES                                                                 | REFERENCES |
|------------|-------------------------|------------|----------------------------------------------------------------------|------------|
| Buxaceae   | Buxus sempervirens L.   |            | Buxus_sempervirens_plg.shp                                            | [59] [60] [64] |
|            |                         |            | Buxus_sempervirens_pnt.shp                                            |            |
|            | Buxus balearica Lam.    |            | Buxus_balearica_plg.shp                                               | [30] [60] [166] [167] |
|            |                         |            | Buxus_balearica_pnt.shp                                               |            |
| Celastraceae | Euonymus europaeus L.  |            | Euonymus_europaeus_plg.shp                                            | [21] [35] [107] [111] |
|            |                         |            | Euonymus_europaeus_plg_clip.shp                                       | [112] [114] [117] [112] |
|            |                         |            | Euonymus_europaeus_pnt.shp                                            | [123] [124] [127] [128] |
|            |                         |            | Euonymus_europaeus_syn_pnt.shp                                        | [129] [130] [131] [132] |
|            |                         |            |                                                                      | [133] [148] [149] [182] |
|            |                         |            |                                                                      | [197] [198] [218] [230] |
|            |                         |            |                                                                      | [233] [237] |
| Rhamnaceae | Frangula alnus Mill.    |            | Frangula_alnus_plg.shp                                                | [21] [33] [35] [93] [107] |
|            |                         |            | Frangula_alnus_plg_clip.shp                                           | [108] [111] [112] [113] |
|            |                         |            | Frangula_alnus_pnt.shp                                                | [114] [115] [118] [117] |
|            |                         |            |                                                                      | [119] [121] [122] [123] |
|            |                         |            |                                                                      | [125] [127] [128] [130] |
|            |                         |            |                                                                      | [132] [133] [146] [149] |
|            |                         |            |                                                                      | [182] [189] [197] [198] |
|            |                         |            |                                                                      | [218] [230] [233] [237] |
| Malvaceae  | Tilia cordata Mill.     |            | Tilia_cordata_plg.shp                                                 | [6] [12] [18] [21] [33] |
|            |                         |            | Tilia_cordata_plg_clip.shp                                            | [35] [80] [93] [107] |
|            |                         |            | Tilia_cordata_pnt.shp                                                 | [111] [112] [114] [115] |
|            |                         |            | Tilia_cordata_syn_pnt.shp                                             | [118] [117] [119] [121] |
|            |                         |            |                                                                      | [122] [123] [124] [125] |
|            |                         |            |                                                                      | [127] [128] [129] [130] |
|            |                         |            |                                                                      | [131] [133] [148] [149] |
|            |                         |            |                                                                      | [182] [189] [197] [198] |
|            |                         |            |                                                                      | [218] [233] [237] [256] |
|            | Tilia platyphyllos Scop.|            | Tilia_platyphyllos_plg.shp                                            | [12] [18] [21] [29] [33] |
|            |                         |            | Tilia_platyphyllos_plg_clip.shp                                       | [35] [46] [48] [81] [93] |
|            |                         |            | Tilia_platyphyllos_pnt.shp                                            | [107] [108] [111] [112] |
|            |                         |            | Tilia_platyphyllos_syn_pnt.shp                                        | [114] [118] [117] [119] |
|            |                         |            |                                                                      | [121] [122] [124] [125] |
|            |                         |            |                                                                      | [127] [128] [129] [130] |
|            |                         |            |                                                                      | [131] [133] [148] [149] |
|            |                         |            |                                                                      | [182] [189] [197] [198] |
|            |                         |            |                                                                      | [203] [209] [218] [233] |
|            |                         |            |                                                                      | [237] |
| Rhamnaceae | Tilia tomentosa Moench  |            | Tilia_tomentosa_plg.shp                                               | [18] [21] [33] [93] [182] |
|            |                         |            | Tilia_tomentosa_plg_clip.shp                                          | [189] [198] [233] |
| Cornaceae  | Cornus mas L.           |            | Cornus_mas_plg.shp                                                    | [18] [21] [29] [33] [35] |
|            |                         |            | Cornus_mas_plg_clip.shp                                               | [46] [107] [111] [112] |
|            |                         |            | Cornus_mas_pnt.shp                                                    | [114] [116] [118] [117] |
|            |                         |            | Cornus_mas_syn_pnt.shp                                                | [121] [124] [127] [129] |
|            |                         |            |                                                                      | [130] [132] [133] [182] |
|            |                         |            |                                                                      | [189] [197] [198] [233] |
|            |                         |            |                                                                      | [237] |
| Rhamnaceae | Cornus sanguinea L.     |            | Cornus_sanguinea_plg.shp                                              | [21] [33] [35] [53] [107] |
|            |                         |            | Cornus_sanguinea_plg_clip.shp                                         | [108] [111] [112] [113] |
|            |                         |            | Cornus_sanguinea_pnt.shp                                              | [114] [116] [118] [117] |
|            |                         |            |                                                                      | [119] [121] [122] [123] |
|            |                         |            |                                                                      | [124] [125] [127] [128] |
|            |                         |            |                                                                      | [129] [130] [131] [132] |
|            |                         |            |                                                                      | [133] [146] [168] [182] |
|            |                         |            |                                                                      | [189] [197] [218] [230] |
|            |                         |            |                                                                      | [233] [237] |
| Ericaceae  | Arbutus unedo L.        |            | Arbutus_undefined_plg.shp                                             | [12] [18] [21] [35] [108] |
|            |                         |            | Arbutus_undefined_plg_clip.shp                                         | [111] [112] [113] [118] |
|            |                         |            | Arbutus_undefined_pnt.shp                                             | [122] [124] [127] [131] |
|            |                         |            | Arbutus_undefined_syn_pnt.shp                                          | [182] [189] [198] [216] |
|            |                         |            |                                                                      | [227] [230] [237] |
| Oleaceae   | Fraxinus angustifolia Vahl |          | Fraxinus_angustifolia_plg.shp                                         | [12] [18] [21] [29] [33] |
|            |                         |            | Fraxinus_angustifolia_plg_clip.shp                                    | [48] [59] [93] [108] |
|            |                         |            | Fraxinus_angustifolia_pnt.shp                                         | [113] [116] [121] [122] |
|            |                         |            |                                                                      | [124] [126] [127] [131] |
|            |                         |            |                                                                      | [132] [134] [147] [182] |
|            |                         |            |                                                                      | [189] [198] [212] [213] |
|            |                         |            |                                                                      | [218] [230] [233] [237] |
|            |                         |            |                                                                      | [238] |
| FAMILY         | SPECIES              | SUBSPECIES                      | FILES                                      | REFERENCES |
|---------------|----------------------|---------------------------------|--------------------------------------------|------------|
|               | *Fraxinus excelsior* L. |                                 | Fraxinus_excelsior_plg.shp                 | [6] [12]   |
|               |                      |                                 | Fraxinus_excelsior_plg_clip.shp            | [21] [29] |
|               |                      |                                 | Fraxinus_excelsior_pnt.shp                 | [33]       |
|               |                      |                                 | Fraxinus_excelsior_syn_pnt.shp             | [107]      |
|               | *Fraxinus ornus* L.   |                                 | Fraxinus_ornus_plg.shp                    | [18] [21]  |
|               |                      |                                 | Fraxinus_ornus_plg_clip.shp               | [33] [35]  |
|               |                      |                                 | Fraxinus_ornus_pnt.shp                    | [46]       |
|               |                      |                                 | Fraxinus_ornus_syn_pnt.shp                | [108]      |
|               | *Olea europaea* L.    | *Olea europaea cerasiformis*     | Olea_europaea_cerasiformis_pnt.shp         | [15] [21]  |
|               |                      | *Olea europaea europaea*        | Olea_europaea_europaea_plg.shp            | [32] [33]  |
|               |                      |                                 | Olea_europaea_europaea_plg_clip.shp       | [48]       |
|               |                      |                                 | Olea_europaea_europaea_pnt.shp            | [109]      |
|               |                      | *Olea europaea guanchica*       | Olea_europaea_guanchica_pnt.shp           | [111]      |
|               |                      | *Olea europaea laperrinei*      | Olea_europaea_laperrinei_plg.shp          | [112]      |
|               |                      |                                 | Olea_europaea_laperrinei_pnt.shp          | [113]      |
|               |                      | *Olea europaea maroccana*       | Olea_europaea_maroccana_pnt.shp           | [114]      |
|               | *Sambucus nigra* L.   |                                 | Sambucus_nigra_plg.shp                    | [6] [21]   |
|               |                      |                                 | Sambucus_nigra_plg_clip.shp               | [33] [35]  |
|               |                      |                                 | Sambucus_nigra_pnt.shp                    | [48]       |
|               |                      |                                 | Sambucus_nigra_syn_pnt.shp                | [107]      |
|               |                      |                                 |                                             | [109]      |
|               |                      |                                 |                                             | [111]      |
|               |                      |                                 |                                             | [114]      |
|               |                      |                                 |                                             | [115]      |
|               |                      |                                 |                                             | [116]      |
|               |                      |                                 |                                             | [117]      |
|               |                      |                                 |                                             | [118]      |
|               |                      |                                 |                                             | [119]      |
|               |                      |                                 |                                             | [121]      |
|               |                      |                                 |                                             | [122]      |
|               |                      |                                 |                                             | [123]      |
|               |                      |                                 |                                             | [124]      |
|               |                      |                                 |                                             | [125]      |
|               |                      |                                 |                                             | [126]      |
|               |                      |                                 |                                             | [127]      |
|               |                      |                                 |                                             | [129]      |
|               |                      |                                 |                                             | [130]      |
|               |                      |                                 |                                             | [131]      |
|               |                      |                                 |                                             | [132]      |
|               |                      |                                 |                                             | [133]      |
|               |                      |                                 |                                             | [134]      |
|               |                      |                                 |                                             | [135]      |
|               |                      |                                 |                                             | [136]      |
|               |                      |                                 |                                             | [137]      |
|               |                      |                                 |                                             | [138]      |
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|               |                      |                                 |                                             | [140]      |
|               |                      |                                 |                                             | [141]      |
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|               |                      |                                 |                                             | [146]      |
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|               |                      |                                 |                                             | [148]      |
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|               |                      |                                 |                                             | [151]      |
|               |                      |                                 |                                             | [152]      |
|               |                      |                                 |                                             | [153]      |
|               |                      |                                 |                                             | [154]      |
|               |                      |                                 |                                             | [155]      |
|               |                      |                                 |                                             | [156]      |
|               |                      |                                 |                                             | [157]      |
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|               |                      |                                 |                                             | [164]      |
|               |                      |                                 |                                             | [165]      |
|               |                      |                                 |                                             | [166]      |
|               |                      |                                 |                                             | [167]      |
|               |                      |                                 |                                             | [168]      |
|               |                      |                                 |                                             | [169]      |
|               |                      |                                 |                                             | [170]      |
|               |                      |                                 |                                             | [171]      |
|               |                      |                                 |                                             | [172]      |
|               |                      |                                 |                                             | [173]      |
|               |                      |                                 |                                             | [174]      |
|               |                      |                                 |                                             | [175]      |
|               |                      |                                 |                                             | [176]      |
|               |                      |                                 |                                             | [177]      |
|               |                      |                                 |                                             | [178]      |
|               |                      |                                 |                                             | [179]      |
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|               |                      |                                 |                                             | [181]      |
|               |                      |                                 |                                             | [182]      |
|               |                      |                                 |                                             | [183]      |
|               |                      |                                 |                                             | [184]      |
|               |                      |                                 |                                             | [185]      |
|               |                      |                                 |                                             | [186]      |
|               |                      |                                 |                                             | [187]      |
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|               |                      |                                 |                                             | [189]      |
|               |                      |                                 |                                             | [190]      |
|               |                      |                                 |                                             | [191]      |
|               |                      |                                 |                                             | [192]      |
|               |                      |                                 |                                             | [193]      |
|               |                      |                                 |                                             | [194]      |
|               |                      |                                 |                                             | [195]      |
|               |                      |                                 |                                             | [196]      |
|               |                      |                                 |                                             | [197]      |
|               |                      |                                 |                                             | [198]      |
|               |                      |                                 |                                             | [218]      |
|               |                      |                                 |                                             | [223]      |
|               |                      |                                 |                                             | [237]      |

12
5. NOMENCLATURE AND SYNONYMS

Table 2 provides the used nomenclature of subspecies with related bibliographic sources. 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) encountered are also listed.

| SPECIES AND TAXONOMY REFERENCE | USED INFRASPECIFICTAXA | HOMOTYPIC SYNONYMS | HETEROTYPIC SYNONYMS |
|-------------------------------|-------------------------|--------------------|----------------------|
| Abies pinsapo Boiss. [95]     | A. p. var. pinsapo      |                    |                      |
|                               | A. p. var. marocana     | A. marocana Trab.  |                      |
|                               | (Trab.) Ceballos & Bolaño|                    |                      |
| Abies nordmanniana (Steven) Spach [95] | 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. |                      |
| Larix decidua Mill. [95]      | L. d. subsp. decidua    |                    |                      |
|                               | L. d. subsp. carpatica  |                    |                      |
|                               | L. d. subsp. polonica   |                    |                      |
|                               | (Racib. ex Wóycicki) Ostenf. & Syrah |                    |                      |
| Pinus brutia Ten. [95]        | 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 [216] | P. n. subsp. nigra      |                    |                      |
|                               | P. n. subsp. salzmannii (Dunal) Franco |                    |                    |
|                               | P. n. subsp. laricio Maire |                    |                      |
|                               | 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 [95]          | P. m. subsp. mugo       |                    |                      |
|                               | P. m. subsp. uncinata (DC.) Domin |                    | P. uncinata DC |
|                               | P. m. subsp. rotundata (Link) Janch. & H. Neumayer |                    | P. rotundata Link |
| 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 |                      |
| Populus tremula L.             |                         | P. davidiana Dode |                      |
| Betula pendula Roth            | B. verrucosa Ehrh.      | B. platyphylla Sukaczew |                      |
|                               |                         | B. szechuanica (C.K.Schneid.) |                      |
|                               |                         | 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. |                      |
| SPECIES AND TAXONOMY REFERENCE | USED INFRASPECIFIC TAXA | HOMOTYPIC SYNONYMS | HETEROTYPIC SYNONYMS |
|---------------------------------|-------------------------|-------------------|-------------------|
| **Alnus incana (L.) Moench [149]** | 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) Rupe. |
|                                 | A. i. subsp. 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) Rupe. |
|                                 | A. i. subsp. kolaensis Orlova |
| **Alnus viridis (Chaix) DC. [22]** | A. v. subsp. viridis | A. mandshurica (Callier) Hand.-Mazz. |
|                                 | A. v. subsp. fruticosa (Rupr.) Nyman | A. mandshurica (Callier) Hand.-Mazz. |
|                                 | A. v. subsp. sinuata (Regel) Á.Löve & D.Löve | A. sinuata (Regel) Rydb. |
|                                 | A. v. subsp. crispa (Alton) Turrill | A. crispa (Alton) Pursh |
|                                 | A. v. subsp. suaveolens (Req.) P.W.Ball |
| **Fagus sylvatica L. [57]** | F. s. subsp. sylvatica | F. orientalis Lipsky |
|                                 | F. s. subsp. orientalis (Lipsky) Greuter & Burdet |
| **Quercus coccifera L.** | Q. c. subsp. coccifera | Q. calliprinos Webb. |
| **Quercus ilex L. [241]** | Q. i. subsp. ilex | Q. rotundifolia Lam. |
|                                 | Q. i. subsp. rotundifolia (Lam.) O.Schwarz ex Tab.Morais |
| **Quercus petraea (Matt.) Liebl.** | Q. p. subsp. petraea | Q. iberica Steven ex M.Bieb. |
| **Quercus robur L.** | Q. r. subsp. robur | Q. longipes Steven |
| **Quercus trojana Webb. [259]** | Q. t. subsp. trojana | Q. pedunculata Bvrh. |
|                                 | Q. t. subsp. yaltirikii Ziel., Petrova & D. Tomaszw. |
|                                 | Q. t. subsp. euboica (Papaoann.) K.I.Chr. |
| **Sorbus aucuparia L.** | Sorbus aucuparia L. |
| **Prunus avium (L.) L.** | Prunus avium (L.) Moench |
| **Prunus padus L.** | Prunus padus L. |
| **Frangula alnus Mill.** | Frangula alnus Mill. |
| **Olea europaea L. [140]** | O. e. subsp. europaea |
|                                 | O. e. subsp. laperrinei (Batt. & Trab.) Gif. |
|                                 | O. e. subsp. cerasiformis G.Kunkel & Sunding |
| **Fraxinus angustifolia L.** | Fraxinus angustifolia L. |
| **Fraxinus oxycarpa Wild.** | Fraxinus oxycarpa Wild. | Fraxinus syriaca Boiss. |
References

[1] Ababsa, M. (Ed.), 2013. Atlas of Jordan: History, Territories and Society. Presses de l’Ifpo, Beyrouth. https://doi.org/10.4000/books.ifpo.4560 ISBN: 9782351594384

[2] Abbate, G., Blasi, C., Paura, B., Scoppola, A., Spada, F., 1990. Phytoecological characterization of Quercus frainetto Ten. stands in peninsular Italy. Vegetatio 90(1): 35-45. https://doi.org/10.1007/BF00045587

[3] Abdessemed, K., 1985. Les problèmes de la dégradation des formations végétales dans l’Aures (Algérie). Deuxième partie: les mesures à prendre. Forêt Méditerranéenne 7(1): 43-52.

[4] Acevski, J., Simovski, B., 2012. Forest associations of the National Park Mavrovo in the Republic of Macedonia. In: Horodnic, S.-A., Duduman, M.-L., Palaghianu, C. (Eds.), Proceedings of the International conference Integrated management of environmental resources: Suceava, November 4-6th, 2011. Editura Universității “Ștefan cel Mare”, Suceava, Romania.

[5] Adams, R. P., Boratynski, A., Arista, M., Schwarzbach, A. E., Leschner, H., Liber, Z., Minissale, P., Mataraci, T., Manolis, A., 2013. Analysis of Juniperus phoenicea from throughout its range in the mediterranean using DNA sequence data from nrDNA and petN-psbM: The case for the recognition of J. turbinata Guss. Phytologia 95(2): 202-209.

[6] Afonin, A. N., Greene, S. L., Dzyubenko, N. I., Frolov, A. N. (Eds.), 2008. Interactive Agricultural Ecological Atlas of Russia and Neighbouring Countries: Economic Plants and their Diseases, Pests and Weeds. www.agroatlas.ru. (Accessed in June 2016).

[7] Akhani, H., Djamali, M., Ghorbanalizadeh, A., Ramezani, E., 2010. Plant biodiversity of Hyrcanian relict forests, N Iran: an overview of Pinus of this flora, vegetation, palaeoecology and conservation. Pakistan Journal of Botany 42(Special Issue): 231-258.

[8] Alan, M., Kaya, Z., 2003. EUFORGEN Technical Guidelines for genetic conservation and use for oriental sweetgum (Liquidambar orientalis). International Plant Genetic Resources Institute, Rome.

[9] Aleksić, J. M., Ballian, D., Isajev, M., Djamali, M., Christian, T., Gardner, M., 2017. Picea omorika. The IUCN Red List of Threatened Species 2017: e.T30313A84039544. https://doi.org/10.2305/IUCN.UK.2017-2.RLTS.T30313A84039544.en (Accessed in December 2019)

[10] Alexandrov A. H., 1998. Pinus peuce. In: Stimm, B., Roloff, A., Lang, U. M., Weisgerber, H. (Eds). Enzyklopädie der Holzwächse: Handbuch und Atlas der Dendrologie. Wiley-VCH Verlag GmbH & Co. KGaA. ISBN: 9783527678518. https://doi.org/10.1002/9783527678518.ehg1998048

[11] Alexandrov, A. H., Andonovski, V., 2011. EUFORGEN Technical Guidelines for genetic conservation and use of Macedonian pine (Pinus peuce). Biodiversity International, Rome.

[12] Alía Miranda, R., García del Barrio, J. M., Iglesias Sauce, S., Mancha Núñez, J. A., de Miguel y del Ángel, J., Nicolás Peragón, J. L., Pérez Martín, F., Sánchez de Ron, D., 2009. Regiones de procedencia de especies forestales en España. Organismo Autónomo Parques Nacionales, Madrid. ISBN: 9788480147590

[13] Alizoti, P. G., Fady, B., Prada, M. A., Vendramin, G. G., 2011. EUFORGEN technical guidelines and use of Mediterranean firs (Abies spp.). Bioversity International, Rome, Italy. ISBN: 9789290438274

[14] Ambrosio, E., Broztu, R., Lancellotti, E., Franceschini, A., Zotti, M., 2014. Macrofungi in Abies alba Miller plantation in north-western Sardinia, Italy. Micologia Italiana 43(1-2-3): 3-24.

[15] Anthelme, F., Abdessemed, A., Besnard, G., 2008. Distribution, shape and clonal growth of the rare endemic tree Olea europaea subsp. laperrellii (Oleaceae) in the Saharan mountains of Niger. Plant Ecology 198(1): 73-87. https://doi.org/10.1007/s1128-007-9386-6

[16] Aradhye, M., Velasco, D., Ibrahimimov, Z., Todoralev, B., Maghradze, D., Musayev, M., Bobokashvili, Z., Preece, J. E., 2017. Genetic and ecological insights into glacial refugia of walnut (Juglans regia L.). PLoS one, 12(10): e0185974. https://doi.org/10.1371/journal.pone.0185974

[17] Arsalan, M. B., Şehin, H. T., 2016. Unutulan Bir Orman Ürünü Kaynağı: Anadolu Sığla Ağacı (Liquidambar orientalis Miller). Journal of Bartın Faculty of Forestry, 18(1): 103-117.

[18] Assyov, B., Petrova, A. (Eds.), 2012. Conспектus Of The Bulgarian Vascular Flora. 4th Edition. Bulgarian Biodiversity Foundation, Sofia. ISBN 9789549959581

[19] Avolio, S., 1984. Il pino loricato (Pinus leucodermis Ant.). Annali Istituto Sperimentale per la Selvicoltura 15: 79-153. In: Gargano, D., Bernardo, L., 2006. Defining population structure and environmental suitability for the conservation of Pinus leucodermis Antoine in central Mediterranean areas. Plant Biosystems 140(3): 245-254. https://doi.org/10.11263/060000947632

[20] Avtzis, N., Avtzis, D., Vergos, S., Diamantis, S., 2007. Contribution to the research of natural distribution of the horsechestnut tree (Aesculus hippocastanum L.) in Greece. Phytologia Balcanica 13(2): 11-17.

[21] Babac, M. T., Uslu, E., Bakis, Y. TÜBİVES - Turkish Plants Data Service. www.tubives.com (Accessed in September 2016)

[22] Banaev, E. V., Adel’shin, R. V., Dec. 2009. Structure of Alnus fruticosa Rupr. s.l. and its relationships with other taxa of subgenus Alnobetula (Ehrhart) Peterman. Contempory Problems of Ecology 2(6): 601-610. https://doi.org/10.1134/S1995425509060186

[23] Barina, Z. (Eds), 2017. Distribution atlas of vascular plants in Albania. Hungarian Natural History Museum, Budapest: 492 pp. ISBN: 9789639877290

[24] Bartha, D., Csaba, M., 1995. Eredő fa- és cserjejájok előfordulása Magyarországon. Hillebrand Nyomda Kft., Sopron. ISBN: 9637180370
[25] Bartha, D., Király, G., Vidéki, R., Nagy, A., 2005. Occurrence of Rare Tree and Shrub Species in Hungary. Acta Silvatica & Lignaria Hungarica 1: 9-23.
[26] Bednorz, L., 2007. Conservation of genetic resources of Sorbus terminalis in Poland. Dendrobiology 58: 3-7.
[27] Beer, R., Kaiser, F., Schmidt, K., Ammann, B., Carraro, G., Grisa, E., Tinner, W., 2008. Vegetation history of the walnut forests in Kyrgyzstan (Central Asia): natural or anthropogenic origin? Quaternary Science Reviews, 27(5-6): 621-632. https://doi.org/10.1016/j.quascirev.2007.11.012
[28] Bertová, L. (Ed.), 1992. Flóra Slovenska IV/3. Vydavateľstvo Slovenskej Akadémie Vied, Bratislava. ISBN: 8022400777
[29] Biodiversity Research Center - Institute of Botany. Flora Database of the Czech Republic. quick.florabase.cz (Accessed in September 2016)
[30] Biondi, E., Vagge, I., Mossa, L., 1997. La vegetazione a Buxus balearica Lam. in Sardegna. Bollettino della Società Sarda di Scienze Naturali, 31: 231-238.
[31] Biserkov, V., Gussev, C., Popov, V., Hibaum, G., Roussakova, V., Pandurski, I., Uzunov, Y., Dimitrov, M., Tzonev, R., Tzoneva, S. (Eds.). 2011. Red Data Book of the Republic of Bulgaria Volume 3: Natural habitats. Institute of Biodiversity and Ecosystem Research & Bulgarian Ministry of Environment and Water, Sofia, Bulgaria. ISBN: 9789549746235
[32] Blada, I., 2008. Pinus cembra distribution in the Romanian Carpathians. Annals of Forest Research 51: 115-132.
[33] Bohn, U., Gollub, G., Hettwer, C., Weber, H., Neuhäuslová, Z., Raus, T., Schlüter, H., 2000. Karte der natürlichen Vegetation Europas / Map of the Natural Vegetation of Europe, Maßstab / Scale 1:2,500,000. Landwirtschaftsverlag, Münster. ISBN: 9783784338095
[34] Boratyński, A., 2007. The Central European disjunctions in the range of Norway Spruce. In: Tjoelker, M. G., Boratynski, A., Bugala, W. (Eds.). Biology and Ecology of Norway Spruce. Forestry Science 78, Springer Netherlands: 37-48. ISBN: 9781402048418
[35] Botanical Society of Britain & Ireland. BSBI big database. bsbidb.org.uk (Accessed in September 2016)
[36] Browicz, K., Zielinski, J., 1982. Chorology of trees and shrubs in south-west Asia and adjacent regions, vol. 1. Polish Scientific Publishers, Warszawa, Poznań. ISBN: 9788301039288
[37] Browicz, K., 1996. Chorology of trees and shrubs in south-west Asia and adjacent regions, supplement. Bogucki Wydawnictwo Naukowe, Poznań. ISBN: 9788386001194
[38] Böcher, T. W., 1979. Birch woodlands and tree growth in southern Greenland. Holarctic Ecology 2(4): 218-221.
[39] Bucalo, V., Stupar, V., Milanović, D., 2012. Karakteristike i porijeklo populacije molike (Pinus peuce Griseb.) na Jadovniku u zapadnoj Bosni. Glasnik Šumarskog fakulteta Univerziteta u Banjoj Luci, 16: 7-29.
[40] Camarda, I., 1982. Note su alberi e arbusti della Sardegna. Bollettino della Società sarda di scienze naturali 21: 323-331.
[41] Cambria, S. Flora e vegetazione della Sicilia. cambriasalvatore.wixsite.com/flora-della-sicilia (Accessed in September 2016)
[42] Chang, C.S., Kim, H. 2015. The Woody Plants of Korea. Beta Version. florakorea.myspecies.info/ko (Accessed in May 2016)
[43] Čiček, F. F., Kaya, Z., Cengell, B. N., Velioglu, E., 2005. Genetic structure of four Kazdagi fir (Abies equitrojani Ascherson et Sinten) populations in Kazdagi, Turkey as assessed by adaptive seedling traits. Forest Genetics 12(1): 45-56.
[44] Collin, E., Bozzano, M., 2015. Implementing the dynamic conservation of elm genetic resources in Europe: case studies and perspectives. iForest - Biogeosciences and Forestry 8(2): 143-148. https://doi.org/10.3832/ifor1206-008
[45] Conedera, M., Manetti, M. C., Giudici, F., Amorini, E., 2004. Distribution and economic potential of the sweet chestnut (Castanea sativa Mill.) in Europe. Ecologia Mediterranea 30(2): 179-193.
[46] Conservatoire et Jardin botaniques de la Ville de Genève (CJB), Pro Natura, Société Botanique Suisse, Académie Suisse des Sciences Naturelles. Info Flora. www.infoflora.ch (Accessed in January 2020)
[47] Critchfield, W. B., Little, E. L., 1966. Geographic distribution of the pines of the world. Miscellaneous Publication No. 991. United States Department of Agriculture, Forest Service, Washington, D.C.
[48] Danin, A. Flora of Israel Online. Jerusalem Botanic Garden. flora.org.il/en (Accessed in September 2016)
[49] Dahmani-Megrerouche, M., 2002. Typologie et dynamique des chênaies vertes en Algérie. Forêt Mediterranéenne 23(2): 117-132.
[50] Davis, P. H. (Ed.), 1965. Flora of Turkey and the East Aegean Islands, vol. 1. Edinburgh University Press. ISBN: 852241593. 8522414960.
[51] Davis, P. H. (Ed.), 1982. Flora of Turkey and the East Aegean Islands, vol. 7. Edinburgh University Press. ISBN: 852243360.
[52] de Boilès, O., Vigo, J., 1984. Flora dels països catalans, vol I. Barcino, Barcelona. ISBN: 8472265927
[53] de Boilès, O., Vigo, J., 1990. Flora dels països catalans, vol II. Barcino, Barcelona. ISBN: 8472266206
[54] de Boilès, O., Vigo, J., 1995. Flora dels països catalans, vol III. Barcino, Barcelona. ISBN: 8472266575
[55] Della Rocca, G., Danti, R., Intini, M., 2007. Il cipresso - Cupressus sempervirens L. In: Panconesi, A. (Ed.), Il Cipresso dalla leggenda al futuro. Consiglio Nazionale delle Ricerche, Istituto Nazionale per la Protezione delle Piante, Firenze, Italia, pp. 119-132. ISBN: 9788888228204
[56] Denk, T., 1999. The taxonomy of Fagus in western Eurasia, 1: Fagus sylvatica subsp. orientalis (= F. orientalis). Feddes Repertorium 110(3-4): 177-200. https://doi.org/10.1002/fedr.19991100510

[57] Denk, T. (2003). Phylogeny of Fagus L. (Fagaceae) based on morphological data. Plant Systematics and Evolution 240(1): 55-81. https://doi.org/10.1007/s00606-003-0018-x

[58] Divišek, J., Culek, M., 2013. Biogeografie - Multimediální elektronický výukový materiál, 2. vydání. is.muni.cz/do/rect/el/estud/prl/pr13/biogeogr_2/web/pages/uvod.html (Accessed in September 2016)

[59] Di Domenico, F., Lucchese, F., Magri, D., 2011. Late glacial and Holocene history of Buxus sempervirens L. in Italy. Annali di Botanica, 1: 45-58. https://doi.org/10.4462/anbotrm-9123

[60] Di Domenico, F., Lucchese, F., Magri, D., 2012. Buxus in Europe: Late Quaternary dynamics and modern vulnerability. Perspectives in plant ecology, evolution and systematics, 14(5): 354-362. https://doi.org/10.1111/j.2006.0030-1299.14826.x

[61] Dobignard, A. Flore du Maroc. www.floramoroccana.fr (Accessed in November 2016)

[62] Dönmez, A.A., Yıldırımli, Ş., 2000. Taxonomy of the Genus Prunus L. (Rosaceae) in Turkey. Turkish Journal of Botany 24(3): 187-202.

[63] Efe, A., 1997. Liquidambar Orientalis Mill. (Şigla Ağacı)’in morfolojik ve palinolojik özellikleri üzerine araştırmalar. Journal of the Faculty of Forestry Istanbul University, 37(2): 84-104.

[64] Essl, F., 2002. Verbreitung und Gesellschaftsanschluss des Buchsbaumes (Buxus sempervirens L.) im oberösterreichischen Enns- und Steyrtal. Verhandlungen der Zoologisch-Botanischen Gesellschaft in Österreich, 139: 75-95.

[65] EUFORGEN, 2003. Distribution map of Norway spruce (Picea abies). www.euforgen.org

[66] EUFORGEN, 2004. Distribution map of Italian stone pine (Pinus pinea). www.euforgen.org

[67] EUFORGEN, 2008. Distribution map of Aleppo pine (Pinus halepensis). www.euforgen.org

[68] EUFORGEN, 2008. Distribution map of Black alder (Alnus glutinosa). www.euforgen.org

[69] EUFORGEN, 2008. Distribution map of Bruta pine (Pinus brutia). www.euforgen.org

[70] EUFORGEN, 2008. Distribution map of Field maple (Acer campestre). www.euforgen.org

[71] EUFORGEN, 2008. Distribution map of Aspen (Populus tremula). www.euforgen.org

[72] EUFORGEN, 2009. Distribution map of Beech (Fagus sylvatica). www.euforgen.org

[73] EUFORGEN, 2009. Distribution map of Black pine (Pinus nigra). www.euforgen.org

[74] EUFORGEN, 2009. Distribution map of Chestnut (Castanea sativa). www.euforgen.org

[75] EUFORGEN, 2009. Distribution map of Common ash (Fraxinus excelsior). www.euforgen.org

[76] EUFORGEN, 2009. Distribution map of Cork oak (Quercus suber). www.euforgen.org

[77] EUFORGEN, 2009. Distribution map of European larch (Larix decidua). www.euforgen.org

[78] EUFORGEN, 2009. Distribution map of European white elm (Ulmus laevis). www.euforgen.org

[79] EUFORGEN, 2009. Distribution map of Italian alder (Alnus cordata). www.euforgen.org

[80] EUFORGEN, 2009. Distribution map of Lime (Tilia cordata). www.euforgen.org

[81] EUFORGEN, 2009. Distribution map of Lime (Tilia platyphyllos). www.euforgen.org

[82] EUFORGEN, 2009. Distribution map of Maritime pine (Pinus pinaster). www.euforgen.org

[83] EUFORGEN, 2009. Distribution map of Oriental beech (Fagus orientalis). www.euforgen.org

[84] EUFORGEN, 2009. Distribution map of Pedunculate oak (Quercus robur). www.euforgen.org

[85] EUFORGEN, 2009. Distribution map of Scots pine (Pinus sylvestris). www.euforgen.org

[86] EUFORGEN, 2009. Distribution map of Sessile oak (Quercus petraea). www.euforgen.org

[87] EUFORGEN, 2009. Distribution map of Silver birch (Betula pendula). www.euforgen.org

[88] EUFORGEN, 2009. Distribution map of Silver fir (Abies alba). www.euforgen.org

[89] EUFORGEN, 2009. Distribution map of Wild cherry (Prunus avium). www.euforgen.org

[90] EUFORGEN, 2010. Distribution map of Swiss stone pine (Pinus cembra). www.euforgen.org

[91] EUFORGEN, 2014. Distribution map of Service tree (Sorbus domestica). www.euforgen.org

[92] EUFORGEN, 2014. Distribution map of Sycamore (Acer pseudoplatanus). www.euforgen.org

[93] European Information System on Forest Genetic Resources. EUFGIS database. portal.eufgis.org (Accessed in September 2016)

[94] Fang, J., Wang, Z., Tang, Z. (Eds.), 2011. Atlas of Woody Plants in China. Springer Berlin Heidelberg, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-15017-3

[95] Farjon, A., 2010. A handbook of the world’s conifer. Brill, Leiden. ISBN 9789004177185.

[96] Farjon, A., 2016. Conifer of the world. Online Database, Department of Plant Sciences, University of Oxford. herbaria.plants.ox.ac.uk/boi/conifers (Accessed in September 2016)

[97] Fernandes, M., Bento, J., Devy-Vareta, N., 2015. Aspetos biogeográficos e paleoambientais de uma população finícula de Pinus sylvestris L. na serra do Gerês (NW Portugal). GOT Revista de Geografia e Ordenamento do Território 7: 159-181. https://doi.org/10.17127/got/2015.7.007
[98] Flora Ionica Working Group. Flora Ionica – An inventory of ferns and flowering plants of the Ionian Islands (Greece). floraionica.univie.ac.at (Accessed in September 2016)

[99] Fukarek, P., 1983. Poljski jasen. In: Potočić, Z. (ed.). Šumarska enciklopedija, Svezak II. Jugoslovenski leksikografski zavod Miroslav Križa, Zagreb.

[100] Furlow J. J., 1997. Betulaceae. In: Flora of North America Editorial Committee (Eds.). Flora of North America North of Mexico, vol. 3. New York and Oxford. floranorthamerica.org (Accessed July 2016)

[101] Gardner, M., Thomas, P. Threatened conifers of the world. Royal Botanic Garden Edinburgh. threatenedconifers.rbge.org.uk (Accessed in September 2016)

[102] Gabrielian, E., Zohary, D., 2004. Wild relatives of food crops native to Armenia and Nakhichevan. Flora Mediterranea, 14: 5-90.

[103] Gaisberger, H., Loo, A. J., Thomas, E., van Zonneveld, M., Vinceti, B., Boshier, D., 2014. Threat mapping approach to wild walnut populations in Central Asia. Conference: CGIAR Consortium for Spatial Information (CGIAR-CSI) 2014 Annual Meeting. https://doi.org/10.13140/2.1.4479.1048

[104] García del Barrio, J. M., Auñón F. J., Sanchez de Ron, D. SIG-FOREST, Sistema de Información de Especies Forestales. sites.google.com/site/sigforestspecies (Accessed in January 2020)

[105] Gargano, D., Bernardo, L., 2006. Defining population structure and environmental suitability for the conservation of Pinus leucodermis Antoine in central Mediterranean areas. Plant Biosystems, 140(3): 245-254. https://doi.org/10.1080/11263500600947632

[106] Gaston, A. J., Garson, P. J., Hunter Jr, M. L., 1983. The status and conservation of forest wildlife in Himachal Pradesh, Western Himalayas. Biological conservation, 27(4): 291-314. https://doi.org/10.1016/0006-3207(83)90088-5

[107] GBIF.org. Artdata. (Accessed in August 2016) https://doi.org/10.15468/dl.vhlsf9

[108] GBIF.org. Banco de Datos de la Biodiversidad de la Comunitat Valenciana. (Accessed in August 2016) https://doi.org/10.15468/dl.ibu4gq

[109] GBIF.org. Belgian IFBL Flora Checklists (1939-1971). (Accessed in October 2017) https://doi.org/10.15468/dl.v1ojnb

[110] GBIF.org. Biologiegarten Linz. (Accessed in October 2017) https://doi.org/10.15468/dl.zcfnm9

[111] GBIF.org. Botanical Society of the British Isles - Vascular Plants Database. (Accessed in August 2016) https://doi.org/10.15468/dl.c7xheb

[112] GBIF.org. Botanical Society of the British Isles - Vascular Plants Database additions since 2000. (Accessed in August 2016) https://doi.org/10.15468/dl.wy04e

[113] GBIF.org. Cartografía de vegetación a escala de detalle 1:10.000 de la masa forestal de Andalucía. (Accessed in August 2016) https://doi.org/10.15468/dl.v7kxvy

[114] GBIF.org. Dutch Vegetation Database (LVD). (Accessed in August 2016) https://doi.org/10.15468/dl.km20zh

[115] GBIF.org. Fieldjournal observation database. (Accessed in August 2016) https://doi.org/10.15468/dl.qfbdxi

[116] GBIF.org. Flora von Deutschland (Phanerogamen). (Accessed in August 2016) https://doi.org/10.15468/dl.jhwq6c

[117] GBIF.org. Florabank1 - A grid-based database on vascular plant distribution in the northern part of Belgium (Flanders and the Brussels Capital region). (Accessed in August 2016) https://doi.org/10.15468/dl.t9ewq8

[118] GBIF.org. FloraCAT: Banco de datos de los cormófitos de Cataluña. (Accessed in August 2016) https://doi.org/10.15468/dl.biuda7

[119] GBIF.org. Floristic Databases of Mecklenburg-Pomerania - Higher Plants. (Accessed in August 2016) https://doi.org/10.15468/dl.bbnnoc

[120] GBIF.org. Floristische Kartierung Österreichs - Mapping the Flora of Austria. (Accessed in August 2015) https://doi.org/10.15468/dl.edafda

[121] GBIF.org. FloVegetSI - Floristical and fitocenological database of ZRC SAZU. (Accessed in August 2016) https://doi.org/10.15468/dl.emozjq

[122] GBIF.org. Fundación Biodiversidad, Real Jardín Botánico (CSIC): Anthos. Sistema de Información de las plantas de Españón. (Accessed in August 2016) https://doi.org/10.15468/dl.9uo7is

[123] GBIF.org. Herbarium of Jyväskylä University Museum. (Accessed in August 2016) https://doi.org/10.15468/dl.qlnmfd

[124] GBIF.org. INPN - Données florae des CBN agrégées par la FCBN. (Accessed in August 2016) https://doi.org/10.15468/dl.gkp7wm

[125] GBIF.org. Institute of Dendrology PAS, Flora of Sudety Mountains. (Accessed in August 2016) https://doi.org/10.15468/dl.kybkpr

[126] GBIF.org. Israel Nature and Parks Authority. (Accessed in January 2020) https://doi.org/10.15468/dl.yaszkmm

[127] GBIF.org. Karl Franzens University of Graz, Institute for Botany - Herbarium GZU. (Accessed in August 2016) https://doi.org/10.15468/dl.4ok78i

[128] GBIF.org. National System of Protected Areas in Poland - Plants. (Accessed in August 2016) https://doi.org/10.15468/dl.ym4vmn

[129] GBIF.org. Norwegian Species Observation Service. (Accessed in August 2016) https://doi.org/10.15468/dl.6domy8
Morphological analysis of pubescent oak (Quercus pubescens Willd.) in Slovenia. Master's thesis, Biotechnical faculty, Department of forestry and renewable forest resources, University of Ljubljana, Slovenia.
[183] Mazur, M., Klajbor, K., Kielich, M., Sowińska, M., Romo, A., Montserrat, J. M., Boratyński, A., 2010. Intra-specific differentiation of Juniperus phoenicea in the western Mediterranean region revealed in morphological multivariate analysis. Dendrobiology 63: 21-31.

[184] Médaill F, Quézel P, Besnard, G., Khadari, B. 2001. Systematics, ecology and phylogeographic significance of Olea europaea L. ssp. maroccana (Greuter & Burdet) P. Vargas et al., a relicual olive tree in south-west Morocco. Botanical Journal of the Linnean Society 137(3): 249-266. https://doi.org/10.1046/j.1095-8339.2002.138002253.x

[185] Mehrnia, M., NejadDattari, T., Assadi, M., Mehergian, I. 2013. Taxonomic study of the genus Quercus L. Sect. Quercus in the Zagros forests of Iran. Iranian Journal of Botany 19(1): 62-74.

[186] Merlino A., Baliva M., Di Filippo A., Piovesan G., Solano F., 2015. Structural and dendroecological analysis of Quercus petraea subsp. austrotyrrynca Brullo, Guarino & Siracusa in the Madonie Natural Park (Sicily). In: Atti del II Congresso Internazionale de Selvicoltura. Progettare il futuro per il settore forestale, Firenze, 26-29
https://doi.org/10.1007/978-3-319-14261-9_4

[187] Meusel, H., Jäger, E. J., 1989. Ecogeographical differentiation of the Submediterranean deciduous forest flora. Plant Systematics and Evolution 162(1-4): 315-329. https://doi.org/10.1007/BF00936924

[188] Meusel, H., Jäger, E. J. (Eds.), 1992. Vergleichende Chorologie der Zentraleuropäischen Flora, Band III. Gustav Fischer Verlag, Jena. ISBN: 3334004112

[189] Meusel, H., Jäger, E. J., Rauschert, S., Weinert, E. (Eds.), 1978. Vergleichende Chorologie der Zentraleuropäischen Flora, Band II. Gustav Fischer Verlag, Jena. ISBN: 333403695

[190] Meusel, H., Jäger, E. J., Weinert, E. (Eds.), 1965. Vergleichende Chorologie der Zentraleuropäischen Flora, Band I. Gustav Fischer Verlag, Jena.

[191] Mhiirt, O., Blerot, P., 1999. Le grand livre de la forêt marocaine. Editions Mardaga. ISBN 9782870096864

[192] Michaud, H., Tourmi, L., Lumaret, R., Li, T. X., Romane, F., Di Giusto, F., 1995. Effect of geographical discontinuity on genetic variation in Quercus ilex L. (holm oak). Evidence from enzyme polymorphism. Heredity 74(6): 590-606. https://doi.org/10.1038/hdy.1995.83

[193] Mitchell, A., Ødum, S., 1977. Træer i Nordeuropa. Gads Forlag, Copenhagen, Denmark. ISBN: 9788712030539

[194] Naqinezhad, A., Hamzeh’ee, B., Attar, F., 2008. Vegetation–environment relationships in the alderwood communities of Caspian lowlands, N. Iran (toward an ecological classification). Flora - Morphology, Distribution, Functional Ecology of Plants 203(7): 567-577. https://doi.org/10.1016/j.flora.2007.09.007

[195] Nasri, N., Bojovic, S., Vendramin, G. G., Fady, B., 2008. Population genetic structure of the relictive spruce, Picea omorika, inferred from plastid DNA. Plant Systematics and Evolution, 271(1-2): 1-7.

[196] Navarrete Poyatos, M.A., Lara Gómez, M.A., Trujillo Toro, J., Palacios Rodríguez, G., Navarro Cerrillo, R.M., Kattar, S., Duque Laz, I., 2014. Climate Change Impacts on Native Tree Species Distribution in Lebanon: Potentiality Projections to 2050. Center of Applied Research in Agroforestry Development (IDAF), University of Córdoba.

[197] NetPhyD: Deutschlandflora WebGIS. Floristische Verbreitungskarten in Deutschland. karten.deutschlandflora.de/map.phtml (Accessed in January 2020)

[198] Nikolić, T. (Ed.), 2015. Flora Croatica Database. Faculty of Science, University of Zagreb. hirc.botanic.hr/fcd (Accessed in September 2016)

[199] Norwegian Biodiversity Information Centre. Artsdatabanken. www.artsdatabanken.no (Accessed in January 2020)

[200] Orman Genel Müdürlüğü, 2013. Orman Atlası. Çankaya, Ankara.

[201] Papini, A., Simeone, M. C., Bellarosa, R., Spada, F., Schirone, B., 2011. Quercus macranthera Fisch. & Mey. ex Hohen. and Quercus iberica L. (holm oak). Evidence from nuclear internal transcribed spacer (ITS) data. Plant Biosystems 145(1): 37-49. https://doi.org/10.1007/s00606-007-0594-2

[202] Paudel, P. K., Bhattrai, B. P., Kindlmann, P., 2012. An overview of the biodiversity in Nepal. In: Kindlmann P. (eds). Himalayan biodiversity in the changing world. Springer, Dordrecht: 1-40. https://doi.org/10.1007/978-94-007-1802-9_1

[203] Pavia, B., Cutini, M., 2006. Sull’ecologia delle foreste dei Tilio-Acerion Klkia 1955 in Molise e considerazioni sui caratteri cenologici e fitogeografici dei boschi di forra dell’Appennino centro-meridionale (Italia centrale e meridionale). Webbia 61(1): 145-165. https://doi.org/10.1080/00837792.2006.10670998

[204] Peć, D. H., Mullaj, A., Dervishi, A., 2012. The natural distribution of horse chestnut in Albania. Journal of Institute Alb-Shkenca 5(1): 153-157.

[205] Peev, D., Vladimiriv, V. (Eds.) 2011. Red Data Book of the Republic of Bulgaria, Volume 1 - Plants & Fungi. Bulgarian Academy of Sciences and Ministry of Environment and Water, Sofia, Bulgaria. ISBN: 9789549746211

[206] Pereira, J. S., Aronson, J., 2009. Chapter 1 - The tree. In: Aronson, J., Pereira, J. S., Pausas, J. G. (Eds.). Cork Oak Woodlands on the Edge: Ecology, Adaptive Management, and Restoration. The Science and Practice of Ecological Restoration Series, Island Press: 11-21. ISBN: 9781597264785

[207] Pereira-Lorenzo, S., Costa, R. M. L., Ramos-Cabrera, A. M., Ciordia-Ara, M., Ribeiro, C. A. M., Borges, O., Barreneche, T., 2011. Chestnut cultivar diversification process in the Iberian Peninsula, Canary Islands, and Azores. Genome 54(4): 301-315. https://doi.org/10.1139/G10-122

[208] Pitlos, D., Constantinidis, T., Kamari, G. (Eds.), 2009. The red data book of rare and threatened plants of Greece, volume 2 E-Z. Hellenic Botanical Society, Patras. ISBN: 9789609407113
[209] Picone, R. M., Crisafulli, A., Zacccone, S., 2008. Habitat forestali di particolare valore naturalistico (Dir. 92/43/CEE) dei Monti Peloritani (Sicilia). In: Atti del Terzo Congresso Nazionale di Selvicoltura, 16-18 ottobre 2008 Taormina (ME). Accademia Italiana di Scienze Forestali, Firenze: 243-248. ISBN: 9788887553161

[210] Plant Diversity Analysis and Synthesis Centre PLADIAS. Database of the Czech Flora and Vegetation. pladias.cz (Accessed in January 2020)

[211] Pollegioni, P., Woeste, K., Chiocchini, F., Del Lungo, S., Cioffi, M., Olimpieri, I., Tortolano, V., Clark, J., Hemory, G. E., Mapelli, S., Malvolti, M. E., 2017. Rethinking the history of common walnut (Juglans regia L.) in Europe: Its origins and human interactions. PloS one, 12(3): e0172541. https://doi.org/10.1371/journal.pone.0172541

[212] Postolache, D., Popescu, F., Palada-Niculau, M., 2005. Chloroplast DNA variation and postglacial recolonization of Fraxinus angustifolia L. in the Balkan Peninsula and in the Carpathian Basin. Bulletin of the University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca Animal Science and Biotechnologies 61: 376–382.

[213] Quezel, P., Santa, S., 1962. Nouvelle flore d’algérie et de lentels régions méridionales, Tome 1-2. Éditions du Centre National de la Recherche Scientifique, Paris.

[214] Quezel, P., Gast, M., 1998. Genévrier. Encyclopédie berbère, 20 Gauda – Girrei. Edisud, Aix-en-Provence: 3016-3023. ISBN: 2744900281

[215] Quézé, P., Médail, F., 2003. Écologie et biogeographie des forets du bassin Méditérranéen. Elsevier, Paris. ISBN: 978248994518

[216] Raab-Straube, E. von, 2014. Gymnospermae. In: Euro+Med Plantbase, the information resource for Euro-Mediterranean plant diversity. ww2.bgbm.org/EuroPlusMed (Accessed in November 2016)

[217] Rameau, J.-C., Mansion, D., Durné, G., 1999. Flore forestière française, Montagnes, Vol. 2. Institut pour le Développement Forestier, Paris. ISBN: 9782904740411

[218] Real Jardín Botánico, CSIC - Fundación Biodiversidad. Anthos - Information System of the plants of Spain. www.anthos.es (Accessed in September 2016)

[219] Rosati, L., Masi, A., Giardini, M., Marignani, M., 2015. Under the shadow of a big plane tree: why Platanus orientalis should be considered an archaeophyte in Italy? Plant Biosystems - An International Journal Dealing with all Aspects of Plant Biology, 149(1): 185-194. https://doi.org/10.1080/11263504.2014.998312

[220] Roussakova, V., 2011. Macedonian pine (Pinus peuce) forests. In: Biserkov, V., Gussev, C., Popov, V., Hibaum, G., Roussakova, V., Pandurski, I., Uzunov, Y., Dimitrov, M., Tzonev, R., Tzoneva, S. (Eds.), 2011. Red Data Book of the Republic of Bulgaria Volume 3: Natural habitats. Institute of Biodiversity and Ecosystem Research & Bulgarian Ministry of Environment and Water, Sofia, Bulgaria. ISBN: 9789549746235

[221] Safarov, N., 2003. First National Report on Biodiversity Conservation of the Republic of Tajikistan. National Biodiversity and Biosafety Agency (NBBC). Dushanbe.

[222] San-Miguel-Ayens, J., de Rigo, D., Caudullo, G., Houston Durrant, T., Mauri, A. (Eds.), 2016. European Atlas of Forest Tree Species. Publication Office of the European Union, Luxembourg. https://doi.org/10.2788/038466 ISBN: 9789279528330

[223] Satake, Y., 1971. Two forms of so-called Miyamanenro (Juniperus communis var. nipponica). Acta Phytotaxonomica et Geobotanica 20(1): 43-47. (in Japanese)

[224] Saulnier, M., Edouard, J.-L., Corona, C., Guibal, F., 2011. Climate/growth relationships in a Pinus cembra high-elevation network in the Southern French Alps. Annals of Forest Science 65(1): 189–200. https://doi.org/10.1007/s10457-011-0020-3

[225] Sciacchetti, R., Marino, P., 2011. Taxa serifiti della flora forestale siciliana e problemi di conservazione. Biogeoarcheologia 30: 141-150.

[226] Schuler, A., 2007. Contribution to the flora of northern and central Greece. Willdenowia 37(1), 229-241. https://doi.org/10.3378/wi.37.37113

[227] Sealy, J. R., Webb, D. A., 1950. Arbutus unedo L. Journal of Ecology 38(1): 223-236. https://doi.org/10.2307/2265540

[228] Skvortsov, A. K., 1999. Willows of Russia and Adjacent Countries: Taxonomical and Geographical Revision (English translation of 1968 Russian edition). University of Joensuu, Finland. ISBN: 9517087667

[229] Smith, R. D., Smith, K. A. (Eds.), 2003. Country Study for Biodiversity of the Republic of Macedonia - First National Report. Ministry of Environment and Physical Planning, Skopje, Macedonia. ISBN: 97899989110153

[230] Sociedade Portuguesa de Botânica. Flora-On: Flora de Portugal interactiva. flora-on.pt (Accessed in January 2020)

[231] Sokolov S. I., Svjaseva O. A., Kubli V. A., 1977. Distribution ranges of trees and shrubs in USSR, vol. 1. Nauka, Leningrad, 164 pp. (In Russian)

[232] Sokolov S. I., Svjaseva O. A., Kubli V. A., 1980. Distribution ranges of trees and shrubs in USSR, vol. 2. Nauka, Leningrad, 107 pp. (In Russian)

[233] Sokolov S. I., Svjaseva O. A., Kubli V. A., 1986. Distribution ranges of trees and shrubs in USSR, vol. 3. Nauka, Leningrad, 182 pp. (In Russian)

[234] Stevanović, V., Vladimirov, V., Niketić, M., Vukojičić, S., Jakovljević, K., Lubarda, B., Tomović, G., 2014. Plant species and subspecies discovered by Dr. Josif Pančić 1 - distribution and floristic importance. Botanica Serbica 38(2): 251-268.

[235] Strid, A., Tan, K. (eds.), 1997. Flora Hellenica, vol I. Koeltz Scientific Books, Königsstein. ISBN: 9783874293914

[236] Tralau H., 1969-1981. Index Holmiensis vol. 1-5. Swedish Museum of Natural History, Stockholm.

[237] Tela Botanica. eFlore. www.tela-botanica.org/site:botanique (Accessed in September 2016)
