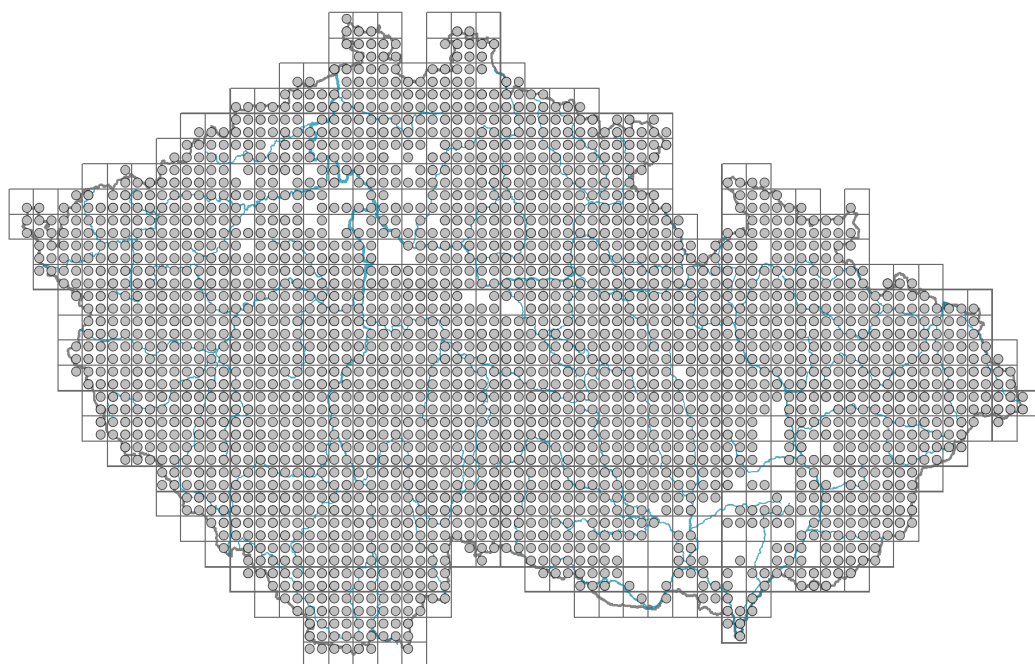


# Filipendula ulmaria

## Distribution



Map info

- revised records
- unrevised records

On the map are not visualized records without the coordinates and records marked as incorrect or doubtful.

## Habitus and growth type

Height [m]: **0.5-2**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **C - competitor**

Life strategy (Pierce method based on leaf traits): **CS/CSR**

Life strategy (Pierce method, C-score): **44.4 %**

Life strategy (Pierce method, S-score): **37 %**

Life strategy (Pierce method, R-score): **18.6 %**

## Leaf

Leaf presence and metamorphosis: **leaves present, not modified**

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **compound - interruptedly pinnate**

Stipules: **present**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic, helomorphic**

## Flower

Flowering period [month]: **June-September**



Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**

Flower colour: **yellow-white**

Flower symmetry: **actinomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **free**

Calyx fusion: **aposepalous**

Inflorescence type: **anthella**

Dicliny: **synoecious, andromonoecious**

Generative reproduction type: **mixed mating**

Pollination syndrome: **insect-pollination, selfing**

Pollinator spectrum: **honeybee, bumblebees, unknown (other Hymenoptera, hoverflies, flies s. l., meat flies s. l., butterflies)**

## Fruit, seed and dispersal

Fruit type: **dry fruit - head of achenes**

Fruit colour: **brown**

Reproduction type: **by seed/spores and vegetatively**

Dispersal unit (diaspore): **fruit, infrutescence or its part**

Dispersal strategy: **Allium (mainly autochory)**

Myrmecochory: **non-myrmecochorous (b)**

## Belowground organs and clonality

Storage organ: **rhizome**

Type of clonal growth organ: **hypogeogenous rhizome**

Freely dispersible organs of clonal growth: **absent**

Shoot life span (cyclicality): **monocyclic shoots prevailing**

Branching type of stem-derived organs of clonal growth: **sympodial**

Primary root: **absent**

Persistence of the clonal growth organ [year]: **3.7**

Number of clonal offspring: **2.7**

Lateral spreading distance by clonal growth [m]: **0.11**

Clonal index: **4**

Position of root buds: **lateral roots**

Role of root buds in life-history of a plant: **regenerative**

## Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **5**

Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **15**

Number of buds per shoot at a depth greater than 10 cm (root buds excluded): **1**

Size of the belowground bud bank (root buds excluded): **21**

Depth of the belowground bud bank (root buds excluded) [cm]: **4**

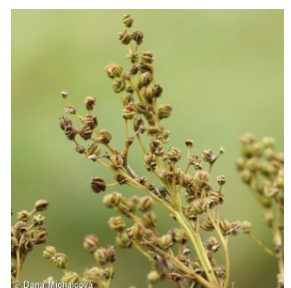
Number of buds per shoot at the soil surface (root buds included): **5**

Number of buds per shoot at a depth of 0–10 cm (root buds included): **17**

Number of buds per shoot at a depth greater than 10 cm (root buds included): **8**

Size of the belowground bud bank (root buds included): **30**

Depth of the belowground bud bank (root buds included) [cm]: **7**



## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**



## Karyology

Chromosome number (2n): **14**

Ploidy level (x): **2**

2C genome size [Mbp]: **671.71**

1Cx monoploid genome size [Mbp]: **335.85**

Genomic GC content: **41.8 %**



## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

### Ellenberg-type indicator values

Light indicator value: **6 - transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area**

Temperature indicator value: **5x - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas (generalist)**

Moisture indicator value: **8 - transition between values 7 and 9**

Reaction indicator value: **6x - transition between values 5 and 7 (generalist)**

Nutrient indicator value: **5 - occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites**

Salinity indicator value: **1 - salt tolerant, mostly on low-salt to salt-free soils, but occasionally on slightly salty soils**

### Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.06**

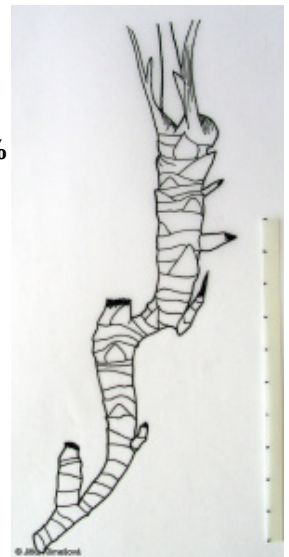
Herb layer disturbance frequency indicator value: **-0.45**

Whole-community disturbance severity indicator value: **0.28**

Herb layer disturbance severity indicator value: **0.29**

Whole-community structure based disturbance indicator value: **0.44**

Herb layer structure-based disturbance indicator value: **0.52**



## Habitat and sociology

### Occurrence in habitats

2 Alpine and subalpine grasslands

2B Subalpine tall-forb and tall-grass vegetation: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **1 - rare occurrence**

4B Halophilous reed and sedge beds: **1 - rare occurrence**

4D Riverine reed vegetation: **2 - optimum**

4E Reed vegetation of brooks: **1 - rare occurrence**

- 4F Mesotrophic vegetation of muddy substrata: **1 - rare occurrence**
- 4G Tall-sedge beds: **2 - optimum**
- 4J River gravel banks: **1 - rare occurrence**
- 4K Petasites fringes of montane brooks: **2 - optimum**
- 4L Nitrophilous herbaceous fringes of lowland rivers: **1 - rare occurrence**
- 5 Vegetation of springs and mires
- 5B Lowland to montane soft-water springs: **1 - rare occurrence**
- 5C Alpine and subalpine soft-water springs: **1 - rare occurrence**
- 5D Calcareous fens: **2 - optimum**
- 5E Acidic moss-rich fens and peatland meadows: **2 - optimum**
- 5F Transitional mires: **1 - rare occurrence**
- 6 Meadows and mesic pastures
- 6A Mesic Arrhenatherum meadows: **1 - rare occurrence**
- 6B Montane mesic meadows: **1 - rare occurrence**
- 6C Pastures and park grasslands: **1 - rare occurrence**
- 6D Alluvial meadows of lowland rivers: **2 - optimum**
- 6E Wet Cirsium meadows: **3 - dominant**
- 6F Intermittently wet Molinia meadows: **2 - optimum**
- 7 Acidophilous grasslands
- 7B Submontane Nardus grasslands: **1 - rare occurrence**
- 9 Sand grasslands and rock-outcrop vegetation
- 9E Acidophilous vegetation of spring therophytes and succulents: **1 - rare occurrence**
- 10 Saline vegetation
- 10J Saline steppes: **1 - rare occurrence**
- 11 Heathlands and scrub
- 11H Subalpine deciduous scrub: **1 - rare occurrence**
- 11I Willow carrs: **1 - rare occurrence**
- 11J Willow galleries of loamy and sandy river banks: **2 - optimum**
- 11L Tall mesic and xeric shrub: **1 - rare occurrence**
- 11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**
- 12 Forests
- 12A Alder carrs: **2 - optimum**
- 12B Alluvial forests: **2 - optimum**
- 12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**
- 13 Anthropogenic vegetation
- 13E Perennial nitrophilous herbaceous vegetation of mesic sites: **1 - rare occurrence**
- Diagnostic taxon
- Diagnostic taxon of associations: [LAA03 Carici acutiformis-Alnetum glutinosae](#), [TDF01 Angelico sylvestris-Cirsietum oleracei](#), [TDF12 Filipendulo ulmariae-Geranium palustris](#), [TDF13 Lysimachio vulgaris-Filipenduletum ulmariae](#), [TDF14 Chaerophyllo hirsuti-Filipenduletum ulmariae](#)
- Constant taxon
- Constant taxon of alliances: [LAA Alnion glutinosae](#), [TDF Calthion palustris](#), [XDB Petasition hybridi](#)
- Constant taxon of associations: [ADD04 Laserpitio archangelicae-Dactylidetum glomeratae](#), [KAB02 Salicetum purpureae](#), [LAA03 Carici acutiformis-Alnetum glutinosae](#), [LBA01 Alnetum incanae](#), [LBA03 Carici remotae-Fraxinetum](#)

[excelsioris](#), [RBA01 Valeriano dioicae-Caricetum davallianae](#), [TDF01 Angelico sylvestris-Cirsietum oleracei](#), [TDF09 Caricetum cespitosae](#), [TDF10 Scirpo sylvatici-Caricetum brizoidis](#), [TDF12 Filipendulo ulmariae-Geranium palustris](#), [TDF13 Lysimachio vulgaris-Filipenduletum ulmariae](#), [TDF14 Chaerophyllo hirsuti-Filipenduletum ulmariae](#), [XDA01 Cuscuta europaeae-Calystegietum sepium](#), [XDB01 Petasitetum hybridi](#), [XDB02 Petasitetum hybrido-kablikiani](#)

Dominant taxon

Dominant taxon of associations: [LBA03 Carici remotae-Fraxinetum excelsioris](#), [TDF10 Scirpo sylvatici-Caricetum brizoidis](#), [TDF12 Filipendulo ulmariae-Geranium palustris](#), [TDF13 Lysimachio vulgaris-Filipenduletum ulmariae](#), [TDF14 Chaerophyllo hirsuti-Filipenduletum ulmariae](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.7**

Ecological specialization index for non-forest vegetation: **5.1**

Ecological specialization index for forest vegetation: **5.3**

Colonization ability

Index of colonization success (ICS): **4**

Index of colonization potential (ICP): **1**

Optimum successional age [years]: **26.5**

## Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional**

Floristic region: **Europe, Siberia**

Distribution range extension along the continentality gradient: **6**

Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane belt**

Expansive taxon in the region: **Bohemian Thermophyticum, Bohemian Moravian Mesophyticum, Bohemian Moravian Oreophyticum, Pannonian Thermophyticum, Carpathian Mesophyticum, Carpathian Oreophyticum**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 657

taxon.data.freq\_in\_quad: 2343

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **6.7 %**

Occurrence frequency in vegetation plots with a cover above 5%: **28.2 %**

Occurrence frequency in vegetation plots with a cover above 25%: **17.8 %**

Occurrence frequency in vegetation plots with a cover above 50%: **12.8 %**

Mean percentage cover in vegetation plots: **14.8 %**

Maximum percentage cover in vegetation plots: **99 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **33**

Number of narrow habitats in which the taxon has its optimum: **11**

Number of broad habitats in which the taxon occurs: **10**

Number of broad habitats in which the taxon has its optimum: **5**

## Threats and protection

Legal protection: **not protected by law**