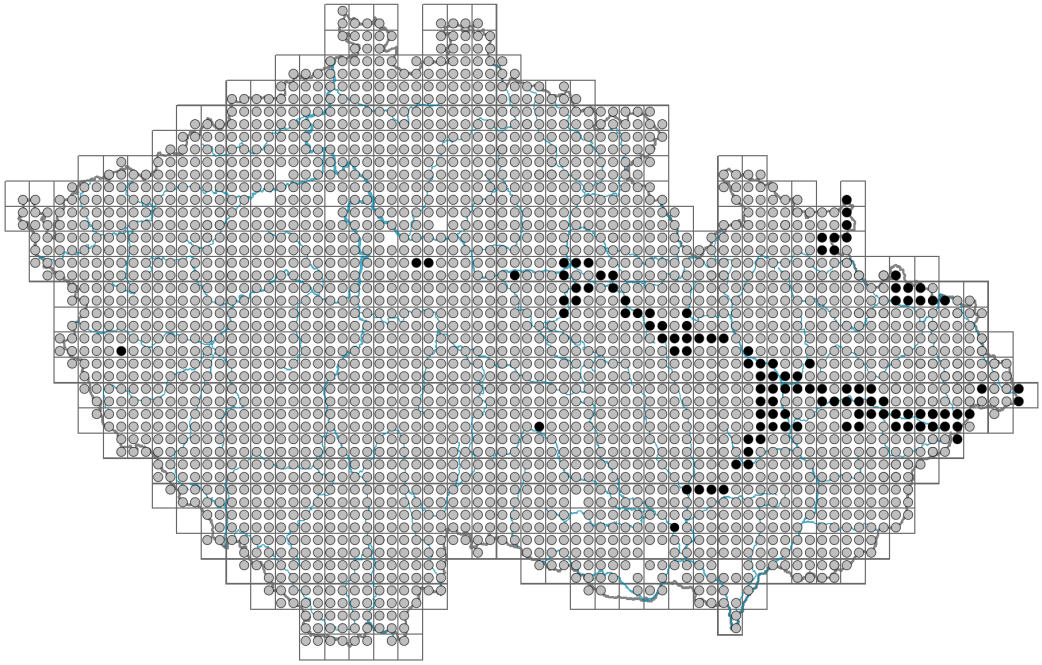
Betula pendula

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]: **5–25**
Growth form: **tree**
Life form: **macrophanerophyte (nanophanerophyte)**
Life strategy: **C – competitor**
Life strategy (Pierce method based on leaf traits): **S/CSR**
Life strategy (Pierce method, C-score): **28.7 %**
Life strategy (Pierce method, S-score): **45.1 %**
Life strategy (Pierce method, R-score): **26.2 %**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **alternate**
Leaf shape: **simple – entire**
Stipules: **present**
Petiole: **present**
Leaf life span: **summer green**
Leaf deciduousness in woody plants: **winter deciduous**
Leaf anatomy: **mesomorphic**
Functional leaf type in woody plants: **broad deciduous or semi-deciduous**

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Flower

Flowering period [month]: **April–May**
Flowering phase: **3 Prunus avium-Ranunculus auricomus (end of early spring)**
Flower colour: **yellow-green**
Perianth type: **homochlamydeous, reduced or absent**
Perianth fusion: **reduced**
Inflorescence type: **amentum e floribus masculis, amentum e floribus femineis**
Dicliny: **monoecious**
Generative reproduction type: **allogamy self-incompatibility**
Pollination syndrome: **wind-pollination**

Fruit, seed and dispersal

Fruit type: **dry fruit – achene/cypsela/samara**
Fruit colour: **brown**
Reproduction type: **only by seed/spores**
Dispersal unit (diaspore): **seed**
Dispersal strategy: **Epilobium (mainly anemochory and autochory)**
Myrmecochory: **non-myrmecochorous (b)**

Belowground organs and clonality

Primary root: **absent**
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): **0**
Size of the belowground bud bank (root buds excluded): **20**
Depth of the belowground bud bank (root buds exluded) [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): **26**
Number of buds per shoot at a depth greater than 10 cm (root buds included): **15**
Size of the belowground bud bank (root buds included): **46**
Depth of the belowground bud bank (root buds included) [cm]: **8**

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

Karyology

Chromosome number (2n): **28**
Ploidy level (x): **2**
2C genome size [Mbp]: **795.77**

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1Cx monoploid genome size [Mbp]: **397.89**
Genomic GC content: **38.1 %**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **7 – half-light plant, mostly occurring at full light, but also in the shade up to about 30% 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: **5x – indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out (generalist)**
Reaction indicator value: **4x – transition between values 3 and 5 (generalist)**
Nutrient indicator value: **3x – occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites (generalist)**
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: **-1.88**
Herb layer disturbance frequency indicator value: **-0.81**
Whole-community disturbance severity indicator value: **0.27**
Herb layer disturbance severity indicator value: **0.13**
Whole-community structure based disturbance indicator value: **0.09**
Herb layer structure-based disturbance indicator value: **0.14**

Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1A Calcareous cliffs: **1 – rare occurrence**
1B Siliceous cliffs and block fields: **2 – optimum**

5 Vegetation of springs and mires

5E Acidic moss-rich fens and peatland meadows: **1 – rare occurrence**
5F Transitional mires: **1 – rare occurrence**
5G Raised bogs: **1 – rare occurrence**
5H Wet peat soils and bog hollows: **1 – rare occurrence**

6 Meadows and mesic pastures

6C Pastures and park grasslands: **1 – rare occurrence**
6E Wet Cirsium meadows: **1 – rare occurrence**
6F Intermittently wet Molinia meadows: **1 – rare occurrence**
6G Vegetation of wet disturbed soils: **1 – rare occurrence**

7 Acidophilous grasslands

7B Submontane Nardus grasslands: **1 – rare occurrence**

8 Dry grasslands

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8B Submediterranean dry grasslands on rock outcrops: **1 – rare occurrence**
8D Broad-leaved dry grasslands: **1 – rare occurrence**
8E Acidophilous dry grasslands: **1 – rare occurrence**
8F Thermophilous forest fringe vegetation: **1 – rare occurrence**

9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **1 – rare occurrence**
9C Festuca grasslands on acidic sands: **1 – rare occurrence**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **2 – optimum**
11H Subalpine deciduous scrub: **1 – rare occurrence**
11I Willow carrs: **1 – rare occurrence**
11L Tall mesic and xeric shrub: **1 – rare occurrence**
11N Low xeric scrub: **1 – rare occurrence**
11R Scrub and pioneer woodland of forests clearings: **2 – optimum, 4 – constant dominant**

12 Forests

12A Alder carrs: **1 – rare occurrence**
12B Alluvial forests: **1 – rare occurrence, 2 – optimum**
12C Oak-hornbeam forests: **1 – rare occurrence, 2 – optimum**
12D Ravine forests: **1 – rare occurrence**
12E Herb-rich beech forests: **1 – rare occurrence**
12F Limestone beech forests: **1 – rare occurrence**
12G Acidophilous beech forests: **2 – optimum**
12H Peri-Alpidic basiphilous thermophilous oak forests: **1 – rare occurrence**
12I Sub-continental thermophilous oak forests: **2 – optimum**
12J Acidophilous thermophilous oak forests: **1 – rare occurrence**
12K Acidophilous oak forests: **2 – optimum, 3 – dominant**
12L Boreo-continental pine forests: **1 – rare occurrence, 3 – dominant**
12O Peri-Alpidic pine forests: **2 – optimum**
12P Peatland pine forests: **2 – optimum**
12Q Peatland birch forests: **2 – optimum**
12R Acidophilous spruce forests: **1 – rare occurrence**
12S Basiphilous spruce forests: **1 – rare occurrence**
12T Robinia pseudacacia plantations: **1 – rare occurrence**
12U Plantations of broad-leaved non-native trees: **1 – rare occurrence**
12V Spruce plantations: **2 – optimum**
12W Pine and larch plantations: **2 – optimum**

13 Anthropogenic vegetation

13D Perennial thermophilous ruderal vegetation: **1 – rare occurrence**
13F Herbaceous vegetation of forests clearings and Rubus scrub: **2 – optimum**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.1 – taxon occurring both in the forest and open vegetation**
Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.1 – taxon occurring both in the forest and open vegetation**

Diagnostic taxon

Diagnostic taxon of classes: **LD *Quercetea robori-petraeae***

Diagnostic taxon of alliances: **LDA *Quercion roboris***, **LFA *Festuco-Pinion sylvestris***, **LFB *Dicrano-Pinion sylvestris***

Diagnostic taxon of associations: **KBC05 *Salicetum capreae***, **LDA03 *Vaccinio vitis-idaeae-Quercetum roboris***, **LFA01 *Festuco-Pinetum sylvestris***, **LFB03 *Hieracio pallidi-Pinetum sylvestris***, **THC04 *Asplenio cuneifolii-Seslerietum caeruleae***

Constant taxon

Constant taxon of classes: **LE *Erico-Pinetea***

Constant taxon of alliances: **LEA *Erico carneae-Pinion***, **LFA *Festuco-Pinion sylvestris***, **LFB *Dicrano-Pinion sylvestris***

Constant taxon of associations: **KBC05 *Salicetum capreae***, **LAA01 *Thelypterido palustris-Alnetum glutinosae***, **LAB01 *Salicetum auritae***, **LDA03 *Vaccinio vitis-idaeae-Quercetum roboris***, **LDA04 *Holco mollis-Quercetum roboris***, **LEA01 *Thlaspio montani-Pinetum sylvestris***, **LFA01 *Festuco-Pinetum sylvestris***, **LFB03 *Hieracio pallidi-Pinetum sylvestris***, **THC04 *Asplenio cuneifolii-Seslerietum caeruleae***, **XEA03 *Rubo idaei-Calamagrostietum arundinaceae***

Dominant taxon

Dominant taxon of associations: **KBB03 *Populo tremulae-Coryletum avellanae***, **KBC05 *Salicetum capreae***, **LFD01 *Vaccinio uliginosi-Betuletum pubescentis***

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.8**

Ecological specialization index for non-forest vegetation: **2.9**

Ecological specialization index for forest vegetation: **4**

Colonization ability

Index of colonization success (ICS): **9**

Index of colonization potential (ICP): **8**

Optimum successional age [years]: **22**

Distribution and frequency

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

Floristic region: **Europe, Western Siberia**

Distribution range extension along the continentality gradient: **7**

Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane belt, subalpine 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: 673

taxon.data.freq_in_quad: 2486

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.3 %**

Occurrence frequency in vegetation plots with a cover above 5%: **26 %**

Occurrence frequency in vegetation plots with a cover above 25%: **4.4 %**

Occurrence frequency in vegetation plots with a cover above 50%: **1 %**

Mean percentage cover in vegetation plots: **6.3 %**

Maximum percentage cover in vegetation plots: **64 %**

Number of habitats with taxon occurrence in the Czech Republic

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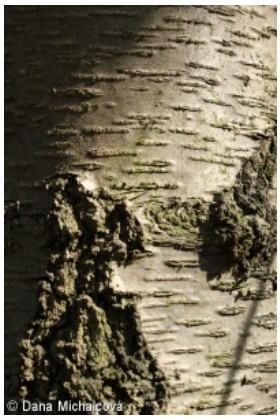
Number of narrow habitats in which the taxon occurs: **42**
Number of narrow habitats in which the taxon has its optimum: **15**
Number of broad habitats in which the taxon occurs: **9**
Number of broad habitats in which the taxon has its optimum: **4**

Threats and protection

Red List 2017 (national categories): **taxon is not on the Red List**
Red List 2017 (IUCN categories): **LC(NA) – least concern (taxon is not on the Red List)**
Legal protection: **not protected by law**



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