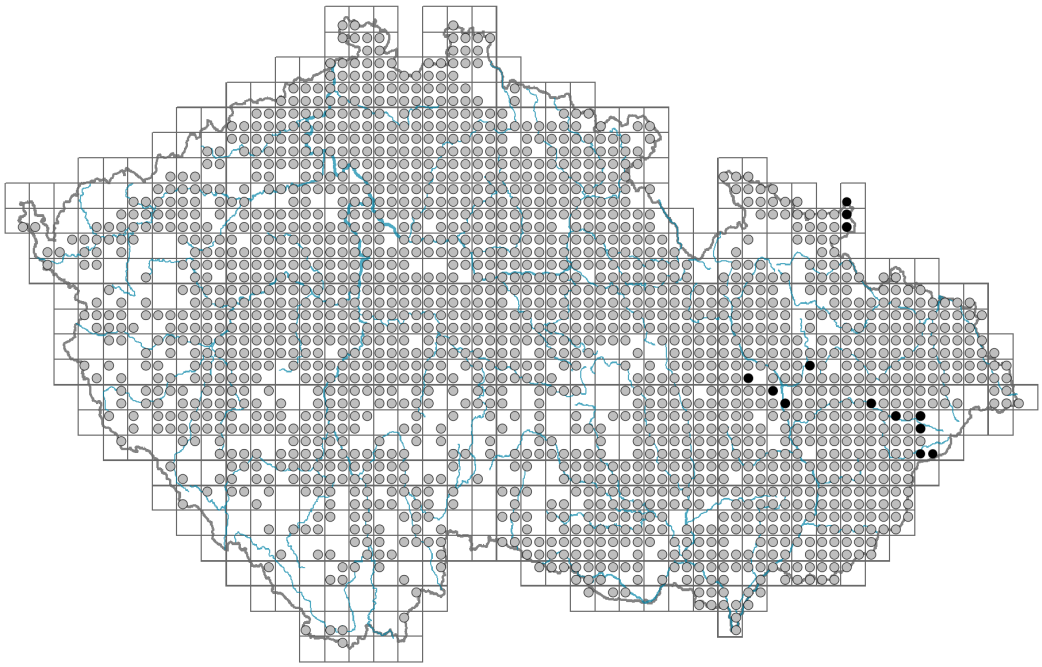
Carpinus betulus

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]:
Growth form: **tree**
Life form: **macrophanerophyte**
Life strategy: **C – competitor**
Life strategy (Pierce method based on leaf traits): **CSR**
Life strategy (Pierce method, C-score): **35.2 %**
Life strategy (Pierce method, S-score): **34.1 %**
Life strategy (Pierce method, R-score): **30.7 %**

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**

Flower

Flowering period [month]: **April–May**
Flowering phase: **4 Fagus sylvatica-Galeobdolon (start of mid-spring)**
Flower colour: **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**
Pollination syndrome: **wind-pollination**

Fruit, seed and dispersal

Fruit type: **dry fruit – nut**
Fruit colour: **brown**
Reproduction type: **mostly by seed/spores, rarely vegetatively**
Dispersal unit (diaspore): **fruit, infrutescence or its part**
Dispersal strategy: **Epilobium (mainly anemochory and autochory)**
Myrmecochory: **non-myrmecochorous (b)**

Belowground organs and clonality

Root metamorphosis: **root shoot**
Position of root buds: **lateral roots**
Role of root buds in life-history of a plant: **additive**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded):
Number of buds per shoot at a depth of 0–10 cm (root buds excluded):
Number of buds per shoot at a depth greater than 10 cm (root buds excluded):
Size of the belowground bud bank (root buds excluded):
Number of buds per shoot at the soil surface (root buds included):
Number of buds per shoot at a depth of 0–10 cm (root buds included):
Number of buds per shoot at a depth greater than 10 cm (root buds included):
Size of the belowground bud bank (root buds included):
Depth of the belowground bud bank (root buds included) [cm]:

Trophic mode

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

Karyology

Chromosome number (2n): **64**
Ploidy level (x): **8**
2C genome size [Mbp]: **2849.42**
1Cx monoploid genome size [Mbp]: **356.18**

Genomic GC content: **38.5 %**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **4 – transition between values 3 and 5**
Temperature indicator value: **6 – transition between values 5 and 7**
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: **6x – transition between values 5 and 7 (generalist)**
Nutrient indicator value: **5x – occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites (generalist)**
Salinity indicator value: **0 – not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.97**
Herb layer disturbance frequency indicator value: **-0.74**
Whole-community disturbance severity indicator value: **0.23**
Herb layer disturbance severity indicator value: **0.05**
Whole-community structure based disturbance indicator value: **0.06**
Herb layer structure-based disturbance indicator value: **0.15**

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: **1 – rare occurrence**

5 Vegetation of springs and mires

5A Hard-water springs with tufa formation: **1 – rare occurrence**
5B Lowland to montane soft-water springs: **1 – rare occurrence**

7 Acidophilous grasslands

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

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **1 – rare occurrence**
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: **2 – optimum**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 – rare occurrence**
11L Tall mesic and xeric shrub: **2 – optimum**
11N Low xeric scrub: **1 – rare occurrence**
11R Scrub and pioneer woodland of forests clearings: **2 – optimum**

12 Forests

12B Alluvial forests: **2 – optimum**
12C Oak-hornbeam forests: **4 – constant dominant**
12D Ravine forests: **4 – constant dominant**
12E Herb-rich beech forests: **2 – optimum**
12F Limestone beech forests: **2 – optimum**
12G Acidophilous beech forests: **1 – rare occurrence**
12H Peri-Alpidic basiphilous thermophilous oak forests: **2 – optimum**
12I Sub-continental thermophilous oak forests: **2 – optimum**
12J Acidophilous thermophilous oak forests: **2 – optimum**
12K Acidophilous oak forests: **2 – optimum**
12L Boreo-continental pine forests: **1 – rare occurrence**
12O Peri-Alpidic pine 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: **1 – rare occurrence**
12W Pine and larch plantations: **1 – rare occurrence**

13 Anthropogenic vegetation

13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 – rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **1.1 – taxon occurring mainly in the closed forest**
Affinity to the forest environment in Mesophyticum and Oreophyticum: **1.1 – taxon occurring mainly in the closed forest**

Diagnostic taxon

Diagnostic taxon of classes: **LB *Carpino-Fagetea***, **LC *Quercetea pubescentis***
Diagnostic taxon of alliances: **LBB *Carpinion betuli***, **LCC *Quercion petraeae***
Diagnostic taxon of associations: **LBB01 *Galio sylvatici-Carpinetum betuli***, **LBB02 *Stellario holosteae-Carpinetum betuli***, **LBB03 *Carici pilosae-Carpinetum betuli***, **LBB04 *Primulo veris-Carpinetum betuli***, **LBF01 *Aceri-Tilietum***

Constant taxon

Constant taxon of alliances: **LBB *Carpinion betuli***, **LCC *Quercion petraeae***
Constant taxon of associations: **LBA07 *Fraxino pannonicae-Ulmetum glabrae***, **LBB01 *Galio sylvatici-Carpinetum betuli***, **LBB02 *Stellario holosteae-Carpinetum betuli***, **LBB03 *Carici pilosae-Carpinetum betuli***, **LBB04 *Primulo veris-Carpinetum betuli***, **LBF01 *Aceri-Tilietum***, **LBF04 *Seslerio albicantis-Tilietum cordatae***, **LCA03 *Euphorbio-Quercetum***, **LCC01 *Sorbo torminalis-Quercetum***, **LCC03 *Melico pictae-Quercetum roboris***

Dominant taxon

Dominant taxon of associations: **LBA07 *Fraxino pannonicae-Ulmetum glabrae***, **LBB01 *Galio sylvatici-Carpinetum betuli***, **LBB02 *Stellario holosteae-Carpinetum betuli***, **LBB03 *Carici pilosae-Carpinetum betuli***, **LBB04 *Primulo veris-Carpinetum betuli***, **LBF01 *Aceri-Tilietum***, **LBF04 *Seslerio albicantis-Tilietum cordatae***

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.8**
Ecological specialization index for non-forest vegetation: **3.6**
Ecological specialization index for forest vegetation: **4.9**

Colonization ability

Index of colonization success (ICS): **7**
Index of colonization potential (ICP): **5**
Optimum successional age [years]: **40**

Distribution and frequency

Floristic zone: **northern temperate, southern temperate, submeridional**
Floristic region: **Europe**
Continentality degree: **5**
Distribution range extension along the continentality gradient: **3**
Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 589
taxon.data.freq_in_quad: 1829

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **4.1 %**
Occurrence frequency in vegetation plots with a cover above 5%: **58.9 %**
Occurrence frequency in vegetation plots with a cover above 25%: **34.1 %**
Occurrence frequency in vegetation plots with a cover above 50%: **18.5 %**
Mean percentage cover in vegetation plots: **23.9 %**
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: **31**
Number of narrow habitats in which the taxon has its optimum: **12**
Number of broad habitats in which the taxon occurs: **7**
Number of broad habitats in which the taxon has its optimum: **3**

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**