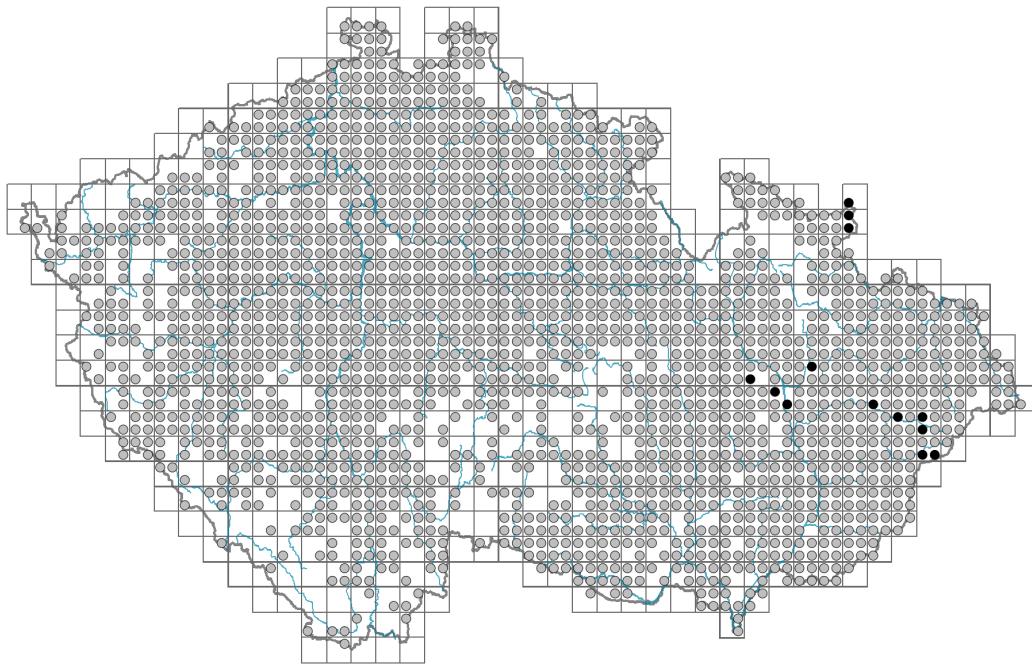


Carpinus betulus

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]: **6-30**

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, infructescence 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): **0**

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

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): **0**

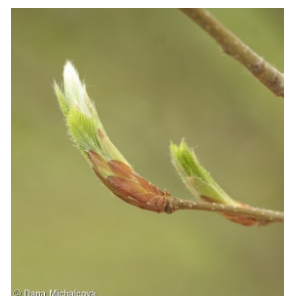
Number of buds per shoot at the soil surface (root buds included): **0**

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

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): **30**

Depth of the belowground bud bank (root buds included) [cm]: **10**



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**

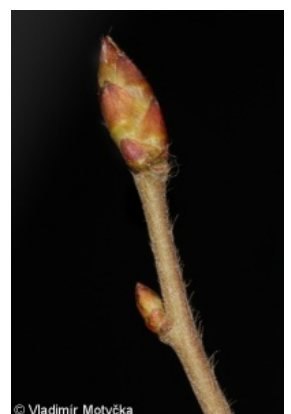
11 Heathlands and scrub

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 holostaeae-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 holostaeae-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 holostaeae-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**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 617

taxon.data.freq_in_quad: 1993

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**