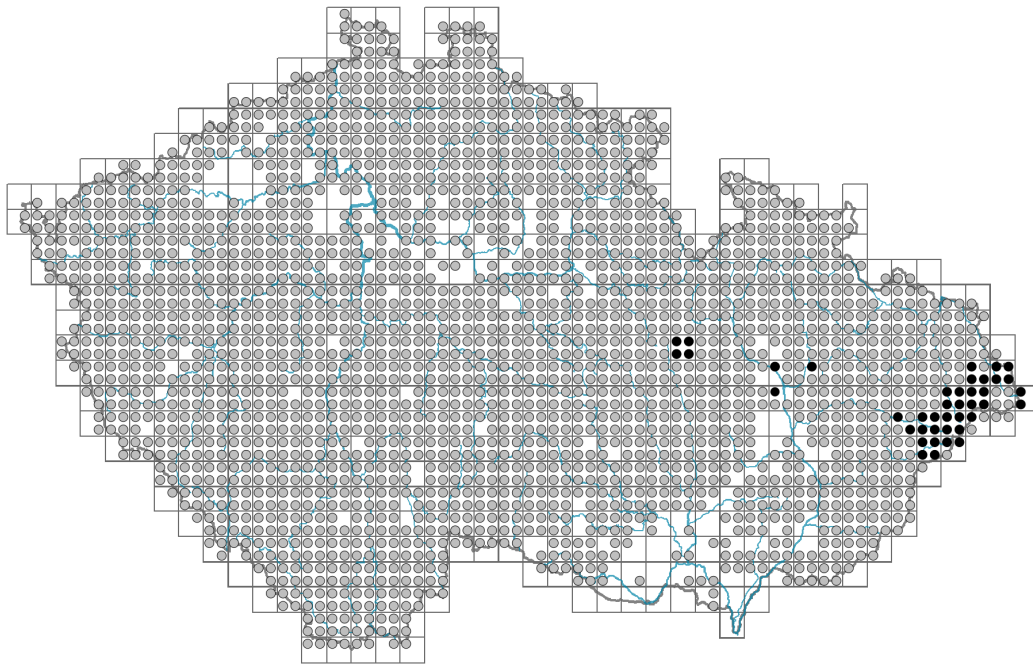


# *Fagus sylvatica*

## Distribution



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### Map info

● revised records

○ unrevised records

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



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## Habitus and growth type

Height [m]: **35-40**

Growth form: **tree**

Life form: **macrophanerophyte**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **32.4 %**

Life strategy (Pierce method, S-score): **46.9 %**

Life strategy (Pierce method, R-score): **20.8 %**

## 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: **reduced**

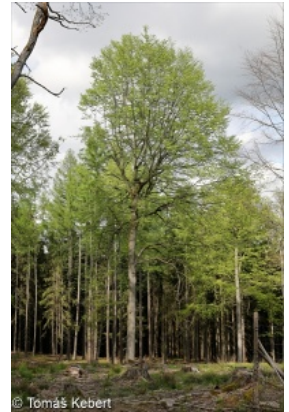
Perianth fusion: **reduced**

Inflorescence type: **amentum e floribus masculis, dichasium e floribus femineis compositum**

Dicliny: **monoecious**

Generative reproduction type: **alogamy self-incompatibility**

Pollination syndrome: **wind-pollination**



## Fruit, seed and dispersal

Fruit type: **dry fruit - achene/cypsela/samara**

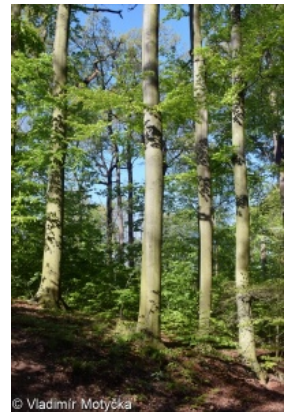
Fruit colour: **brown**

Reproduction type: **only by seed/spores**

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

Dispersal strategy: **Cornus (mainly autochory and endozoochory)**

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



## Belowground organs and clonality

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): **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**

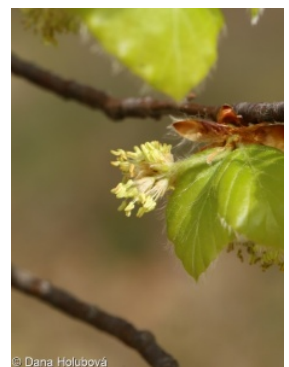
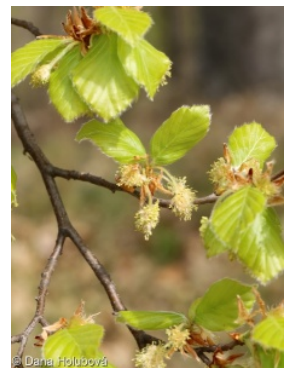
Number of buds per shoot at the soil surface (root buds included): **0**

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**

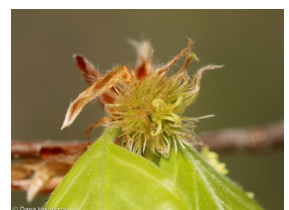
## Karyology

Chromosome number (2n): **24**

Ploidy level (x): **2**

2C genome size [Mbp]: **961.89**

1Cx monoploid genome size [Mbp]: **480.95**



Genomic GC content: **38.7 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **3 - shade plant, usually occurring where the incident radiation is less than 5% of that in an open area, but also at sunnier sites**

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

Moisture indicator value: **5 - indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out**

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: **-1.99**

Herb layer disturbance frequency indicator value: **-0.71**

Whole-community disturbance severity indicator value: **0.23**

Herb layer disturbance severity indicator value: **0.04**

Whole-community structure based disturbance indicator value: **0.06**

Herb layer structure-based disturbance indicator value: **0.14**

## Habitat and sociology

Occurrence in habitats

2 Alpine and subalpine grasslands

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

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **1 - rare occurrence**

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**

8F Thermophilous forest fringe vegetation: **1 - rare occurrence**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 - rare occurrence**

11L Tall mesic and xeric shrub: **1 - rare occurrence**

11R Scrub and pioneer woodland of forests clearings: **2 - optimum**

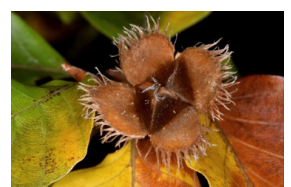
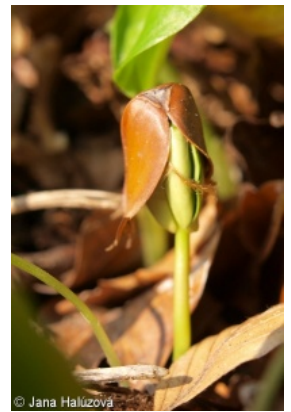
12 Forests

12B Alluvial forests: **1 - rare occurrence**

12C Oak-hornbeam forests: **2 - optimum**

12D Ravine forests: **2 - optimum**

12E Herb-rich beech forests: **4 - constant dominant**



- 12F Limestone beech forests: **4 - constant dominant**  
 12G Acidophilous beech forests: **4 - constant dominant**  
 12H Peri-Alpidic basiphilous thermophilous oak forests: **1 - rare occurrence**  
 12I Sub-continental thermophilous oak forests: **1 - rare occurrence**  
 12J Acidophilous thermophilous oak forests: **1 - rare occurrence**  
 12K Acidophilous oak forests: **2 - optimum**  
 12L Boreo-continental pine forests: **1 - rare occurrence**  
 12O Peri-Alpidic pine forests: **1 - rare occurrence**  
 12R Acidophilous spruce forests: **1 - rare occurrence**  
 12S Basiphilous spruce forests: **2 - optimum**  
 12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**  
 12V Spruce plantations: **2 - optimum**  
 12W Pine and larch plantations: **1 - rare occurrence**



### 13 Anthropogenic vegetation

- 13E Perennial nitrophilous herbaceous vegetation of mesic sites: **1 - rare occurrence**  
 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\*](#)

Diagnostic taxon of alliances: [LBC \*Fagion sylvaticae\*](#), [LBD \*Sorbo-Fagion sylvaticae\*](#), [LBE \*Luzulo-Fagion sylvaticae\*](#)

Diagnostic taxon of associations: [LBC01 \*Galio odorati-Fagetum sylvaticae\*](#), [LBC02 \*Mercuriali perennis-Fagetum sylvaticae\*](#), [LBC03 \*Carici pilosae-Fagetum sylvaticae\*](#), [LBC04 \*Athyrio distentifolii-Fagetum sylvaticae\*](#), [LBD01 \*Cephalanthero damasonii-Fagetum sylvaticae\*](#), [LBE01 \*Luzulo luzuloidis-Fagetum sylvaticae\*](#), [LBE02 \*Calamagrostio villosae-Fagetum sylvaticae\*](#)



### Constant taxon

Constant taxon of classes: [LB \*Carpino-Fagetea\*](#)

Constant taxon of alliances: [LBC \*Fagion sylvaticae\*](#), [LBD \*Sorbo-Fagion sylvaticae\*](#), [LBE \*Luzulo-Fagion sylvaticae\*](#), [LBF \*Tilio platyphylly-Acerion\*](#)

Constant taxon of associations: [LBC01 \*Galio odorati-Fagetum sylvaticae\*](#), [LBC02 \*Mercuriali perennis-Fagetum sylvaticae\*](#), [LBC03 \*Carici pilosae-Fagetum sylvaticae\*](#), [LBC04 \*Athyrio distentifolii-Fagetum sylvaticae\*](#), [LBD01 \*Cephalanthero damasonii-Fagetum sylvaticae\*](#), [LBE01 \*Luzulo luzuloidis-Fagetum sylvaticae\*](#), [LBE02 \*Calamagrostio villosae-Fagetum sylvaticae\*](#), [LBF02 \*Mercuriali perennis-Fraxinetum excelsioris\*](#), [LBF03 \*Arunco dioici-Aceretum pseudoplatani\*](#)



### Dominant taxon

Dominant taxon of associations: [LBB03 \*Carici pilosae-Carpinetum betuli\*](#), [LBC01 \*Galio odorati-Fagetum sylvaticae\*](#), [LBC02 \*Mercuriali perennis-Fagetum sylvaticae\*](#), [LBC03 \*Carici pilosae-Fagetum sylvaticae\*](#), [LBC04 \*Athyrio distentifolii-Fagetum sylvaticae\*](#), [LBD01 \*Cephalanthero damasonii-Fagetum sylvaticae\*](#), [LBE01 \*Luzulo luzuloidis-Fagetum sylvaticae\*](#), [LBE02 \*Calamagrostio villosae-Fagetum sylvaticae\*](#), [LBF03 \*Arunco dioici-Aceretum pseudoplatani\*](#)



### Ecological specialization indices

Ecological specialization index for all vegetation types: 5

Ecological specialization index for non-forest vegetation: **4.2**

Ecological specialization index for forest vegetation: **5**

Colonization ability

Index of colonization success (ICS): **7**

Index of colonization potential (ICP): **5**

Optimum successional age [years]: **27**

## Distribution and frequency

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

Floristic region: **Europe**

Continental degree: **3**

Distribution range extension along the continentality gradient: **3**

Elevational belt in the Czech Republic: **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: **2308**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **6.4 %**

Occurrence frequency in vegetation plots with a cover above 5%: **76.7 %**

Occurrence frequency in vegetation plots with a cover above 25%: **67.6 %**

Occurrence frequency in vegetation plots with a cover above 50%: **65.3 %**

Mean percentage cover in vegetation plots: **51.9 %**

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: **28**

Number of narrow habitats in which the taxon has its optimum: **9**

Number of broad habitats in which the taxon occurs: **6**

Number of broad habitats in which the taxon has its optimum: **2**

## 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**



