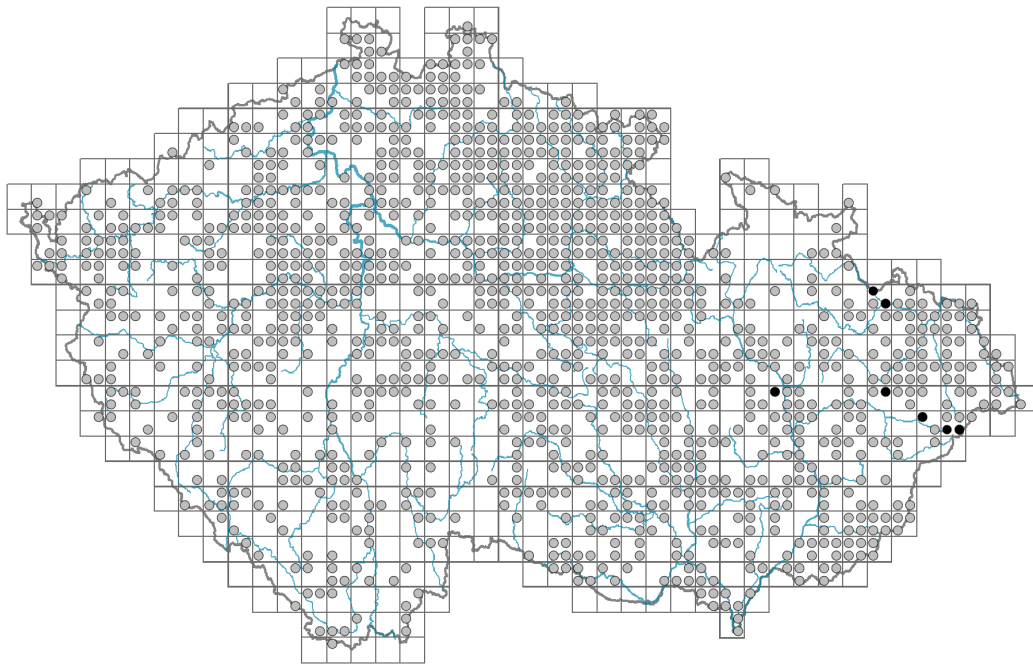


# *Aesculus hippocastanum*

## 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.

## Habitus and growth type

Height [m]: **15-25**

Growth form: **tree**

Life form: **macrophanerophyte**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **58.5 %**

Life strategy (Pierce method, S-score): **29.8 %**

Life strategy (Pierce method, R-score): **11.7 %**



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## Leaf

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

Leaf arrangement (phyllotaxis): **opposite**

Leaf shape: **compound - palmate (5-foliate), compound - palmate (7-foliate)**

Stipules: **absent**

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]: **May**

Flowering phase: **4 Fagus sylvatica-Galeobdolon (start of mid-spring)**

Flower colour: **white**

Flower symmetry: **zygomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **free**

Calyx fusion: **synsepalous**

Inflorescence type: **panicula e cincinnis composita**

Dicliny: **trimonoecious**

Generative reproduction type: **facultative allogamy**

Pollination syndrome: **insect-pollination**



## Fruit, seed and dispersal

Fruit type: **dry fruit - capsule**

Fruit colour: **brown**

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

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

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

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: **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): **0**

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

Size of the belowground bud bank (root buds included): **0**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **40**

Ploidy level (x): **2**

2C genome size [Mbp]: **1011.23**

1Cx monoploid genome size [Mbp]: **505.62**

Genomic GC content: **38.2 %**

## Taxon origin

Origin in the Czech Republic: **neophyte**

Invasion status: **naturalized**

Geographic origin: **Mediterranean**

Period of introduction: **Early Modern Period (1500-1800)**

Introduction pathway: **intentional - ornamental, intentional - landscaping**

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

Reaction indicator value: **6 - transition between values 5 and 7**

Nutrient indicator value: **7 - occurring at nutrient-rich sites more often than at average sites and only exceptionally at poor sites**

Salinity indicator value: **0 - not salt tolerant, glycophyte**

## Habitat and sociology

### Occurrence in habitats

11 Heathlands and scrub

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

11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**

12 Forests

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

12C Oak-hornbeam forests: **1 - rare occurrence**

12U Plantations of broad-leaved non-native trees: **3 - dominant**

13 Anthropogenic vegetation

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **1 - rare occurrence**

### Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

### Ecological specialization indices

Ecological specialization index for all vegetation types: **4.9**

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

### Colonization ability

Index of colonization success (ICS): **2**

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

Optimum successional age [years]: **75**





## Distribution and frequency

Floristic zone: **submeridional, meridional**

Floristic region: **Europe**

Continentality degree: **6**

Distribution range extension along the continentality gradient: **2**

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: **552**

taxon.data.freq\_in\_quad: **1220**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0 %**

Occurrence frequency in vegetation plots with a cover above 5%: **16.7 %**

Occurrence frequency in vegetation plots with a cover above 25%: **8.3 %**

Occurrence frequency in vegetation plots with a cover above 50%: **8.3 %**

Mean percentage cover in vegetation plots: **9.9 %**

Maximum percentage cover in vegetation plots: **88 %**

Number of habitats with taxon occurrence in the Czech Republic

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

Number of narrow habitats in which the taxon has its optimum: **1**

Number of broad habitats in which the taxon occurs: **3**

Number of broad habitats in which the taxon has its optimum: **1**

## 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**

