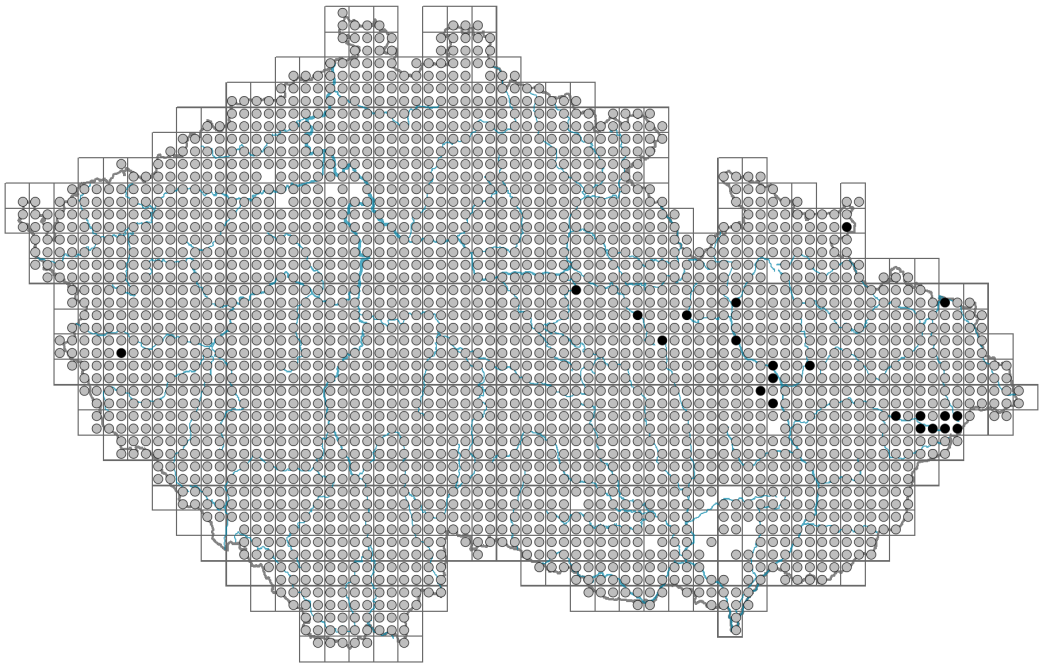
Alnus glutinosa

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]: **10–35**
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): **49.1 %**
Life strategy (Pierce method, S-score): **34.1 %**
Life strategy (Pierce method, R-score): **16.8 %**

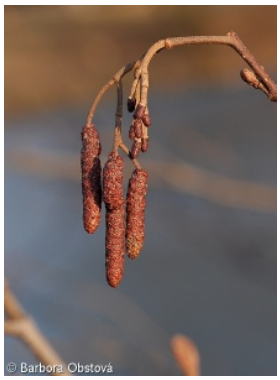
Leaf

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, helomorphic**
Functional leaf type in woody plants: **broad deciduous or semi-deciduous**

Flower

Flowering period [month]: **February–April**
Flowering phase: **1 Corylus avellana-Leucojum vernum (pre-spring)**
Flower colour: **yellow-green**
Perianth type: **homochlamydeous, reduced or absent**
Perianth fusion: **reduced**
Inflorescence type: **amentum e floribus masculis, strobilus**
Dicliny: **synoecious, 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, black**
Reproduction type: **mostly by seed/spores, rarely vegetatively**
Dispersal unit (diaspore): **seed, fruit, infrutescence or its part**
Dispersal strategy: **Epilobium (mainly anemochory and autochory)**
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: **symbiosis with Frankia**

Karyology

Chromosome number (2n): **28**
Ploidy level (x): **2**
2C genome size [Mbp]: **895.5**
1Cx monoploid genome size [Mbp]: **447.75**
Genomic GC content: **38.9 %**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **5x – semi-shade plant, only exceptionally occurring in full light, but usually at more than 10% of the diffuse radiation incident in an open area (generalist)**

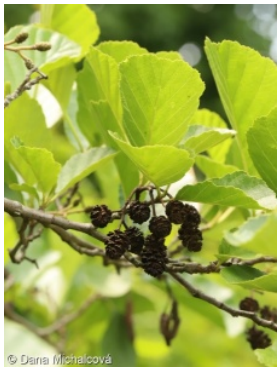
Temperature indicator value: **5 – moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas**

Moisture indicator value: **9 – wetness indicator, focus on often soaked, poorly aerated soils**

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: **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: **-1.85**

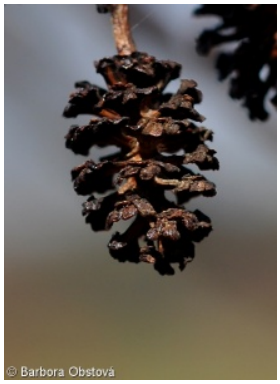
Herb layer disturbance frequency indicator value: **-0.83**

Whole-community disturbance severity indicator value: **0.26**

Herb layer disturbance severity indicator value: **0.12**

Whole-community structure based disturbance indicator value: **0.13**

Herb layer structure-based disturbance indicator value: **0.23**



Habitat and sociology

Occurrence in habitats

4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **1 – rare occurrence**

4D Riverine reed vegetation: **1 – rare occurrence**

4F Mesotrophic vegetation of muddy substrata: **1 – rare occurrence**

4G Tall-sedge beds: **1 – rare occurrence**

4I Vegetation of nitrophilous annual hygrophilous herbs: **1 – rare occurrence**

4J River gravel banks: **1 – rare occurrence**

4K Petasites fringes of montane brooks: **1 – rare occurrence**

4L Nitrophilous herbaceous fringes of lowland rivers: **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**

5D Calcareous fens: **1 – rare occurrence**

5E Acidic moss-rich fens and peatland meadows: **1 – rare occurrence**

5F Transitional mires: **1 – rare occurrence**

6 Meadows and mesic pastures

6E Wet Cirsium meadows: **1 – rare occurrence**

6F Intermittently wet Molinia meadows: **1 – rare occurrence**

6G Vegetation of wet disturbed soils: **1 – rare occurrence**

11 Heathlands and scrub

11I Willow carrs: **1 – rare occurrence**

11J Willow galleries of loamy and sandy river banks: **2 – optimum**

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

12 Forests

12A Alder carrs: **4 – constant dominant**

12B Alluvial forests: **4 – constant dominant**

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

12D Ravine forests: **1 – rare occurrence**

12E Herb-rich beech forests: **1 – rare occurrence**

12K Acidophilous oak forests: **1 – rare occurrence**

12P Peatland pine forests: **1 – rare occurrence**

12Q Peatland birch forests: **1 – rare occurrence**

12R Acidophilous 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: **1 – rare occurrence**

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: **2.1 – 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: **LA *Alnetea glutinosae***

Diagnostic taxon of alliances: **LAA *Alnion glutinosae***, **LBA *Alnion incanae***

Diagnostic taxon of associations: **KAB01 *Salicetum elaeagno-purpureae***, **LAA01 *Thelypterido palustris-Alnetum glutinosae***, **LAA02 *Carici elongatae-Alnetum glutinosae***, **LAA03 *Carici acutiformis-Alnetum glutinosae***, **LBA02 *Piceo abietis-Alnetum glutinosae***, **LBA03 *Carici remotae-Fraxinetum excelsioris***, **LBA04 *Stellario nemorum-Alnetum glutinosae***, **LBA05 *Pruno padi-Fraxinetum excelsioris***

Constant taxon

Constant taxon of classes: **LA *Alnetea glutinosae***

Constant taxon of alliances: **LAA *Alnion glutinosae***, **LBA *Alnion incanae***

Constant taxon of associations: **KAB01 *Salicetum elaeagno-purpureae***, **LAA01 *Thelypterido palustris-Alnetum glutinosae***, **LAA02 *Carici elongatae-Alnetum glutinosae***, **LAA03 *Carici acutiformis-Alnetum glutinosae***, **LBA02 *Piceo abietis-Alnetum glutinosae***, **LBA03 *Carici remotae-Fraxinetum excelsioris***, **LBA04 *Stellario nemorum-Alnetum glutinosae***, **LBA05 *Pruno padi-Fraxinetum excelsioris***

Dominant taxon

Dominant taxon of associations: **LAA01 *Thelypterido palustris-Alnetum glutinosae***, **LAA02 *Carici elongatae-Alnetum glutinosae***, **LAA03 *Carici acutiformis-Alnetum glutinosae***, **LBA02 *Piceo abietis-Alnetum glutinosae***, **LBA03 *Carici remotae-Fraxinetum excelsioris***, **LBA04 *Stellario nemorum-Alnetum glutinosae***, **LBA05**

Pruno padi-Fraxinetum excelsioris

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.7**
Ecological specialization index for non-forest vegetation: **3.5**
Ecological specialization index for forest vegetation: **4.9**

Colonization ability

Index of colonization success (ICS): **7**
Index of colonization potential (ICP): **7**
Optimum successional age [years]: **25**

Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional, meridional**
Floristic region: **Europe, Western Siberia**
Distribution range extension along the continentality gradient: **5**
Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane 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: 664
taxon.data.freq_in_quad: 2464

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2 %**
Occurrence frequency in vegetation plots with a cover above 5%: **74.8 %**
Occurrence frequency in vegetation plots with a cover above 25%: **64.5 %**
Occurrence frequency in vegetation plots with a cover above 50%: **40.3 %**
Mean percentage cover in vegetation plots: **39.5 %**
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: **32**
Number of narrow habitats in which the taxon has its optimum: **3**
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**