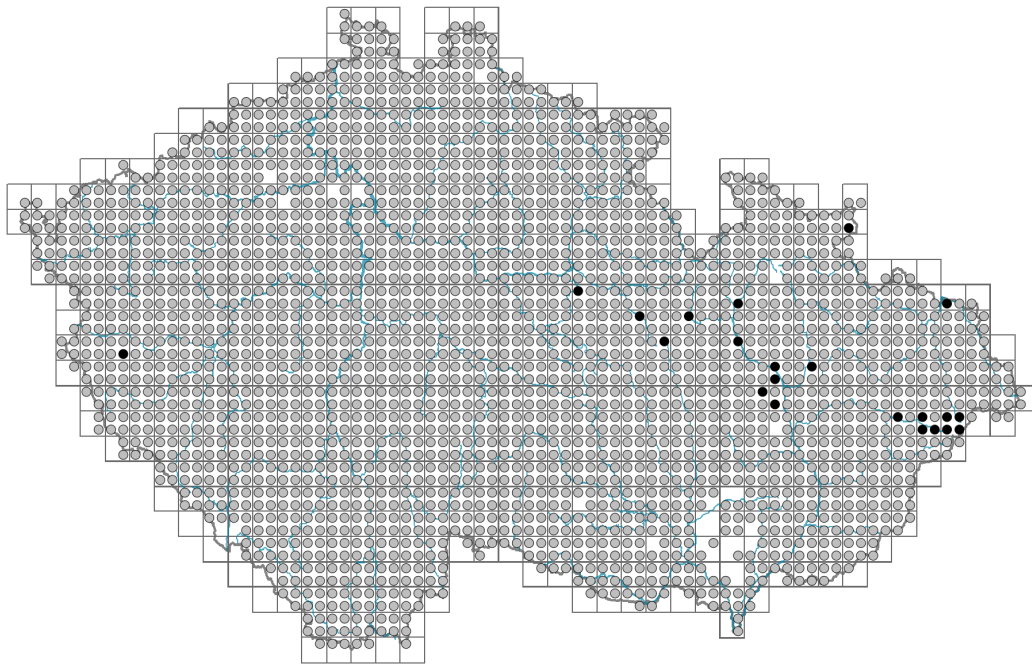


# *Alnus glutinosa*

## Distribution



© Pavel Veselý

### 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**



© Dana Michalová



© Jan Divišek



© Dana Michalová

## 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**

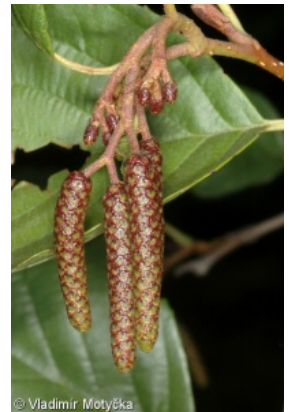
Perianth fusion: **reduced**

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**

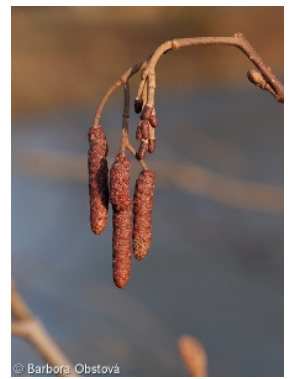
Fruit colour: **brown, black**

Reproduction type: **mostly by seed/spores, rarely vegetatively**

Dispersal unit (diaspore): **seed, fruit, infructescence 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**

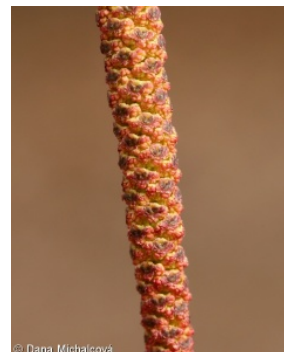
Number of buds per shoot at the soil surface (root buds included): **0**

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

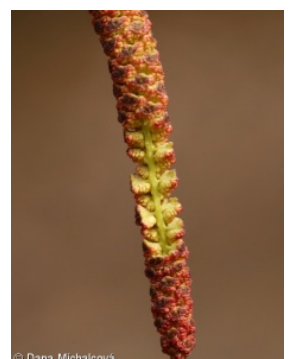
Chromosome number (2n): **28**

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**

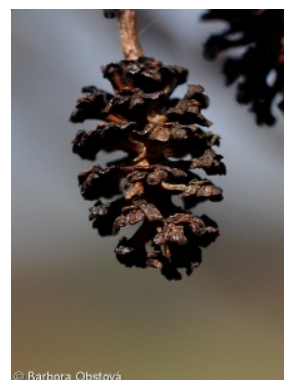
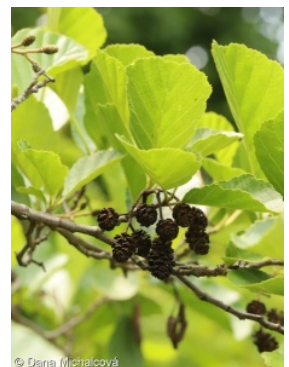
5E Acidic moss-rich fens and peatland meadows: **1 - rare occurrence**

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**