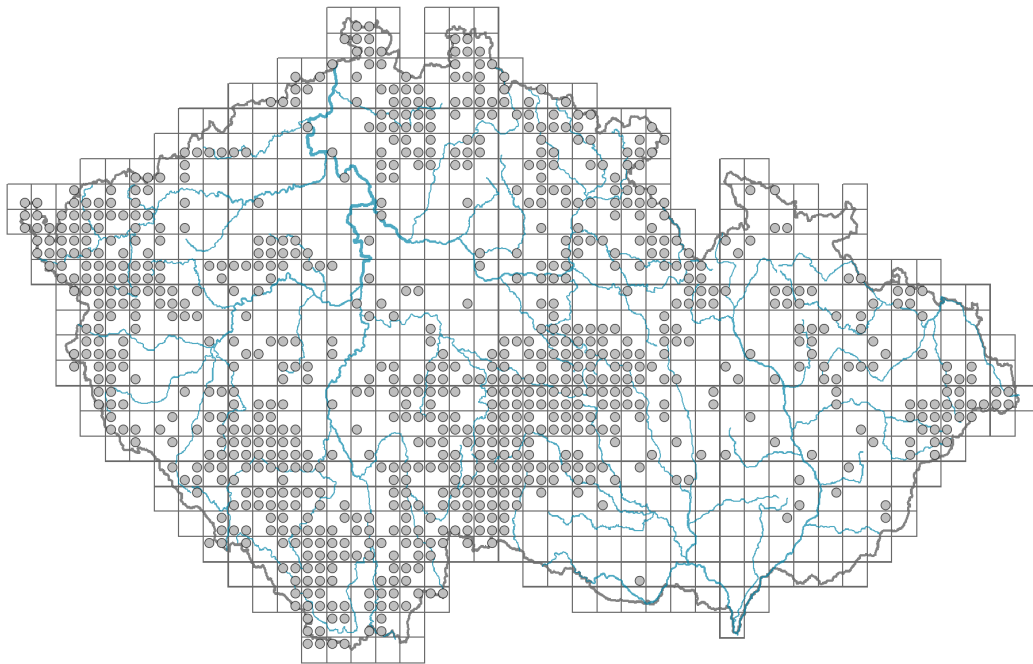


Menyanthes trifoliata

Distribution

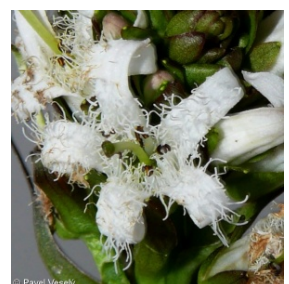
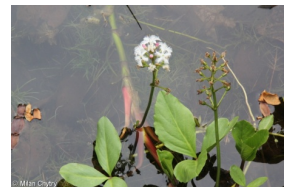


Map info

● 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]: **0.15-0.3**

Growth form: **clonal herb**

Life form: **geophyte**

Life strategy: **CS - competitor/stress-tolerator**

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

Life strategy (Pierce method, C-score): **53.4 %**

Life strategy (Pierce method, S-score): **12.6 %**

Life strategy (Pierce method, R-score): **34 %**

Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **compound - ternate**

Stipules: **absent**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **hydromorphic**

Flower

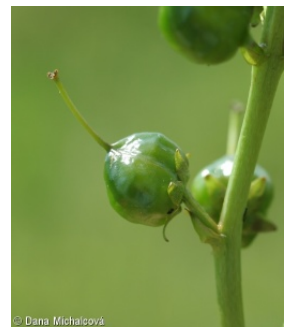
Flowering period [month]: **May-June**

Flowering phase: **4 Fagus sylvatica-Galeobdolon (start of mid-spring)**
 Flower colour: **pink**
 Flower symmetry: **actinomorphic**
 Perianth type: **calyx and corolla**
 Perianth fusion: **fused**
 Shape of the sympetalous corolla or syntepalous perianth: **funnel-shaped**
 Calyx fusion: **synsepalous**
 Inflorescence type: **racemus**
 Dicliny: **synoecious**
 Generative reproduction type: **allogamy self-incompatibility**
 Pollination syndrome: **insect-pollination, selfing**



Fruit, seed and dispersal

Fruit type: **dry fruit - capsule**
 Fruit colour: **brown**
 Reproduction type: **mostly vegetatively, rarely by seed/spores**
 Dispersal unit (diaspore): **seed, shoot fragment**
 Dispersal strategy: **Sparganium (mainly autochory and hydrochory)**
 Myrmecochory: **non-myrmecochorous (b)**



Belowground organs and clonality

Shoot metamorphosis: **rhizome**
 Storage organ: **rhizome**
 Type of clonal growth organ: **epigeogenous rhizome**
 Freely dispersible organs of clonal growth: **absent**
 Shoot life span (cyclicality): **monocyclic shoots prevailing**
 Branching type of stem-derived organs of clonal growth: **monopodial**
 Primary root: **absent**
 Persistence of the clonal growth organ [year]: **4**
 Number of clonal offspring: **0.9**
 Lateral spreading distance by clonal growth [m]: **0.13**
 Clonal index: **4**
 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): **10**
 Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **11**
 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): **21**
 Depth of the belowground bud bank (root buds excluded) [cm]: **3**
 Number of buds per shoot at the soil surface (root buds included): **10**
 Number of buds per shoot at a depth of 0–10 cm (root buds included): **11**
 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): **21**
 Depth of the belowground bud bank (root buds included) [cm]: **3**



Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

Karyology

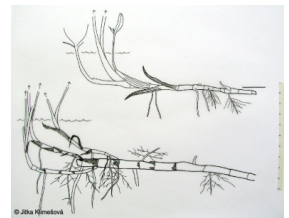
Chromosome number (2n): **54**

Ploidy level (x): **6**

2C genome size [Mbp]: **2939.83**

1Cx monoploid genome size [Mbp]: **489.97**

Genomic GC content: **39.6 %**



Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **7 - half-light plant, mostly occurring at full light, but also in the shade up to about 30% of diffuse radiation incident in an open area**

Temperature indicator value: **4 - transition between values 3 and 5**

Moisture indicator value: **10 - aquatic plant that survives long periods without soil flooding**

Reaction indicator value: **4x - transition between values 3 and 5 (generalist)**

Nutrient indicator value: **3 - occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites**

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

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-0.77**

Herb layer disturbance frequency indicator value: **-0.67**

Whole-community disturbance severity indicator value: **0.11**

Herb layer disturbance severity indicator value: **0.15**

Whole-community structure based disturbance indicator value: **0.57**

Herb layer structure-based disturbance indicator value: **0.62**

Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

3C Macrophytic vegetation of oligotrophic lakes and pools: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation

4F Mesotrophic vegetation of muddy substrata: **2 - optimum**

4G Tall-sedge beds: **2 - optimum**

5 Vegetation of springs and mires

5D Calcareous fens: **2 - optimum**

5E Acidic moss-rich fens and peatland meadows: **2 - optimum**

5F Transitional mires: **2 - optimum**

5G Raised bogs: **1 - rare occurrence**

5H Wet peat soils and bog hollows: **2 - optimum**

6 Meadows and mesic pastures

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

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

11 Heathlands and scrub

11I Willow carrs: **2 - optimum**

12 Forests

12A Alder carrs: **1 - rare occurrence**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **0 - taxon that does not spontaneously occur in Czech forests**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **0 - taxon that does not spontaneously occur in Czech forests**

Diagnostic taxon

Diagnostic taxon of classes: [RB Scheuchzerio palustris-Caricetea nigrae](#)

Diagnostic taxon of alliances: [RBB Sphagno warnstorffii-Tomentypnion nitentis](#), [RBC Caricion canescenti-nigrae](#), [VDC Sphagno-Utricularion](#)

Diagnostic taxon of associations: [MCG03 Peucedano palustris-Caricetum lasiocarpae](#), [MCG04 Comaro palustris-Caricetum cespitosae](#), [MCG06 Caricetum appropinquatae](#), [RBA04 Campylio stellati-Caricetum lasiocarpae](#), [RBB01 Sphagno warnstorffii-Eriophoretum latifolii](#), [RBB02 Campylio stellati-Trichophoretum alpini](#), [RBB03 Menyantho trifoliatae-Sphagnetum teretis](#), [RBC02 Drosero anglicae-Rhynchosporium albae](#), [RBC03 Agrostio caninae-Caricetum diandrae](#), [VDC03 Scirpidio scorpioidis-Utricularietum](#)

Constant taxon

Constant taxon of associations: [MCG04 Comaro palustris-Caricetum cespitosae](#), [RBA04 Campylio stellati-Caricetum lasiocarpae](#), [RBB02 Campylio stellati-Trichophoretum alpini](#), [RBB03 Menyantho trifoliatae-Sphagnetum teretis](#), [RBC03 Agrostio caninae-Caricetum diandrae](#), [VDC03 Scirpidio scorpioidis-Utricularietum](#)

Dominant taxon

Dominant taxon of associations: [MCG04 Comaro palustris-Caricetum cespitosae](#), [MCG05 Caricetum diandrae](#), [MCG06 Caricetum appropinquatae](#), [RBB03 Menyantho trifoliatae-Sphagnetum teretis](#), [RBC03 Agrostio caninae-Caricetum diandrae](#), [VDC02 Sphagno-Utricularietum ochroleucae](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.7**

Ecological specialization index for non-forest vegetation: **5.7**

Ecological specialization index for forest vegetation: **6**

Colonization ability

Index of colonization success (ICS): **1**

Index of colonization potential (ICP): **1**

Distribution and frequency

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

Floristic region: **circumpolar**

Distribution range extension along the continentality gradient: **8**

Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 403

taxon.data.freq_in_quad: 864

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.9 %**

Occurrence frequency in vegetation plots with a cover above 5%: **39.5 %**

Occurrence frequency in vegetation plots with a cover above 25%: **14.2 %**

Occurrence frequency in vegetation plots with a cover above 50%: **3.2 %**

Mean percentage cover in vegetation plots: **11.1 %**

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: **12**

Number of narrow habitats in which the taxon has its optimum: **7**

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

Number of broad habitats in which the taxon has its optimum: **3**

Threats and protection

Red List 2017 (national categories): **C3 - vulnerable taxon**

Red List 2017 (IUCN categories): **NT - near threatened**

Legal protection: **vulnerable taxon**