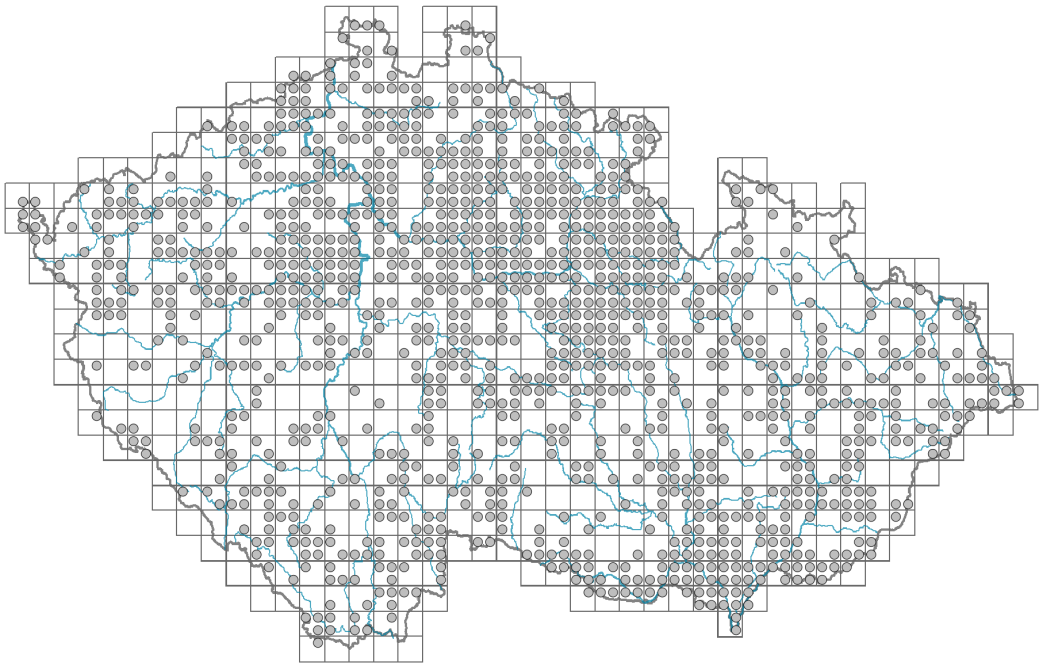
Mentha aquatica

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]: **0.45–1.5**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CS – competitor/stress-tolerator**
Life strategy (Pierce method based on leaf traits): **CR**
Life strategy (Pierce method, C-score): **39.1 %**
Life strategy (Pierce method, S-score): **8 %**
Life strategy (Pierce method, R-score): **52.9 %**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **opposite**
Leaf shape: **simple – entire**
Stipules: **absent**
Petiole: **present**
Leaf life span: **evergreen**
Leaf anatomy: **hygromorphic, helomorphic**

Flower

Flowering period [month]: **July–August**

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Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**
Flower colour: **pink, pink-violet**
Flower symmetry: **zygomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **fused**
Shape of the sympetalous corolla or syntepalous perianth: **tubular**
Calyx fusion: **synsepalous**
Inflorescence type: **capitulum e verticillastris compositum**
Dicliny: **gynomonoecious, gynodioecious**
Generative reproduction type: **facultative allogamy**
Pollination syndrome: **insect-pollination**
Pollinator spectrum: **hoverflies, flies s. l., other Diptera (honeybee, bumblebees, solitary bees, other Hymenoptera, meat flies s. l., butterflies, beetles, nitidulids, thrips, other pollinators)**

Fruit, seed and dispersal

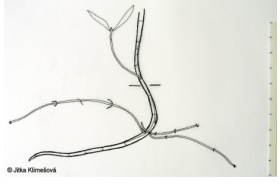
Fruit type: **dry fruit – cluster of four one-seeded nutlets**
Fruit colour: **brown**
Reproduction type: **by seed/spores and vegetatively**
Dispersal unit (diaspore): **fruit, infrutescence or its part, shoot fragment**
Dispersal strategy: **Sparganium (mainly autochory and hydrochory)**
Myrmecochory: **probably myrmecochorous**

Belowground organs and clonality

Shoot metamorphosis: **stolon**
Storage organ: **stolon**
Type of clonal growth organ: **hypogeogenous rhizome**
Freely dispersible organs of clonal growth: **absent**
Shoot life span (cyclicity): **monocyclic shoots prevailing**
Branching type of stem-derived organs of clonal growth: **sympodial**
Primary root: **absent**
Persistence of the clonal growth organ [year]: **1.7**
Number of clonal offspring: **6**
Lateral spreading distance by clonal growth [m]: **0.13**
Clonal index: **5**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **8**
Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **12**
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): **20**
Depth of the belowground bud bank (root buds exluded) [cm]: **3**
Number of buds per shoot at the soil surface (root buds included): **8**
Number of buds per shoot at a depth of 0–10 cm (root buds included): **12**
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): **20**
Depth of the belowground bud bank (root buds included) [cm]: **3**



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Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

Karyology

Chromosome number (2n): **96**
Ploidy level (x): **8**
2C genome size [Mbp]: **2567.24**
1Cx monoploid genome size [Mbp]: **320.9**
Genomic GC content: **39.1 %**

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: **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: **7 – indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**
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: **-0.75**
Herb layer disturbance frequency indicator value: **-0.63**
Whole-community disturbance severity indicator value: **0.22**
Herb layer disturbance severity indicator value: **0.26**
Whole-community structure based disturbance indicator value: **0.58**
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

4A Reed-beds of eutrophic still waters: **2 – optimum**
4B Halophilous reed and sedge beds: **1 – rare occurrence**

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4C Eutrophic vegetation of muddy substrata: **1 – rare occurrence**
4D Riverine reed vegetation: **2 – optimum**
4E Reed vegetation of brooks: **2 – optimum**
4G Tall-sedge beds: **2 – optimum**
4H Vegetation of low annual hygrophilous herbs: **1 – rare occurrence**
4I Vegetation of nitrophilous annual hygrophilous herbs: **1 – rare occurrence**
4J River gravel banks: **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: **2 – optimum**
5E Acidic moss-rich fens and peatland meadows: **1 – rare occurrence**
5F Transitional mires: **1 – rare occurrence**
5H Wet peat soils and bog hollows: **1 – rare occurrence**

6 Meadows and mesic pastures

6C Pastures and park grasslands: **1 – rare occurrence**
6D Alluvial meadows of lowland rivers: **1 – rare occurrence**
6E Wet Cirsium meadows: **1 – rare occurrence**
6F Intermittently wet Molinia meadows: **1 – rare occurrence**
6G Vegetation of wet disturbed soils: **1 – rare occurrence**

10 Saline vegetation

10I Inland saline meadows: **1 – rare occurrence**

11 Heathlands and scrub

11I Willow carrs: **1 – rare occurrence**
11J Willow galleries of loamy and sandy river banks: **1 – rare occurrence**

12 Forests

12A Alder carrs: **2 – optimum**
12B Alluvial forests: **1 – rare occurrence**
12U Plantations of broad-leaved non-native trees: **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**

Dominant taxon

Dominant taxon of associations: **MCB02 *Schoenoplectetum tabernaemontani***

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.6**
Ecological specialization index for non-forest vegetation: **3.6**
Ecological specialization index for forest vegetation: **5.2**

Colonization ability

Index of colonization success (ICS): **2**
Index of colonization potential (ICP): **1**
Optimum successional age [years]: **7**

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Distribution and frequency

Floristic zone: **northern temperate, southern temperate, submeridional, meridional, austral or antarctic**
Floristic region: **Europe, Western Siberia, Eastern America, circumpolar**
Distribution range extension along the continentality gradient: **5**
Elevational belt in the Czech Republic: **lowlands, colline belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 535
taxon.data.freq_in_quad: 1186

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%: **12.4 %**
Occurrence frequency in vegetation plots with a cover above 25%: **3.4 %**
Occurrence frequency in vegetation plots with a cover above 50%: **0.4 %**
Mean percentage cover in vegetation plots: **4.5 %**
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: **28**
Number of narrow habitats in which the taxon has its optimum: **6**
Number of broad habitats in which the taxon occurs: **7**
Number of broad habitats in which the taxon has its optimum: **3**

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**

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