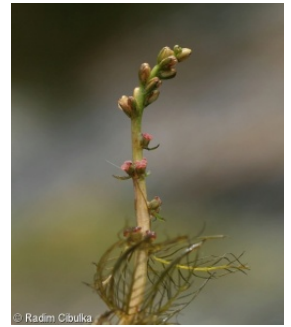
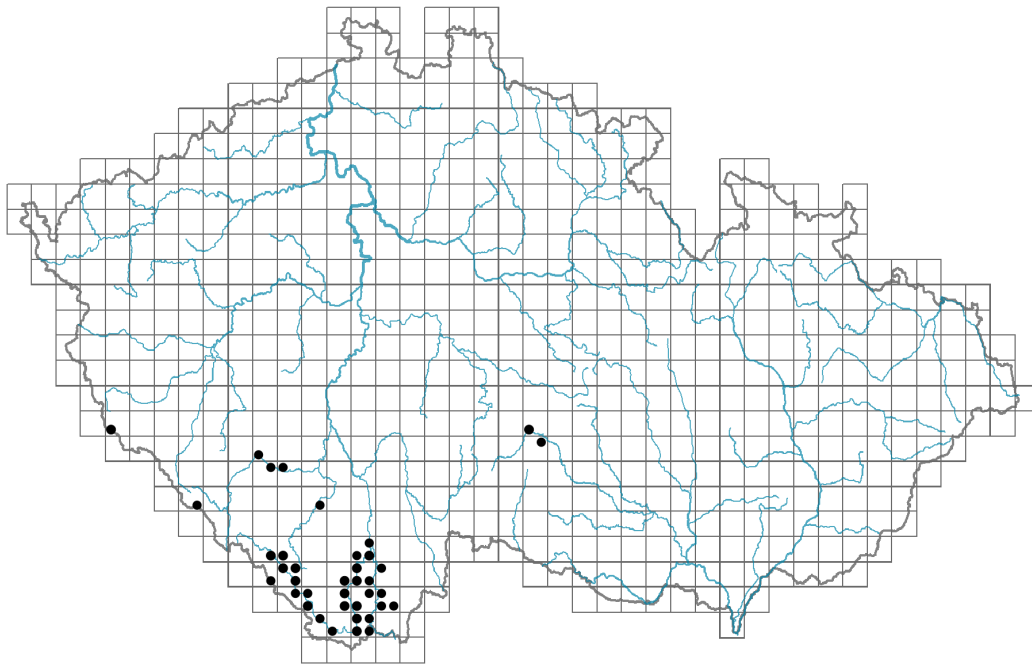


# *Myriophyllum alterniflorum*

## Distribution



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### Map info

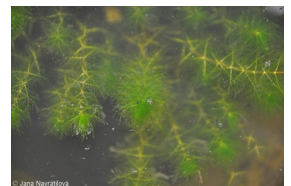
● revised records

○ unrevised records

On the map are not visualized records without the coordinates and records marked as incorrect or doubtful.



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## Habitus and growth type

Height [m]: **0.2-1.3**

Growth form: **clonal herb**

Life form: **hydrophyte**

Life strategy (Pierce method based on leaf traits): **R/SR**

Life strategy (Pierce method, C-score): **0 %**

Life strategy (Pierce method, S-score): **18.6 %**

Life strategy (Pierce method, R-score): **81.5 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **verticillate**

Leaf shape: **simple - pinnately divided**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **evergreen**

Leaf anatomy: **hydromorphic**

## Flower

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

Flower colour: **yellow**

Perianth type: **reduced**  
Perianth fusion: **reduced**  
Calyx fusion: **aposepalous**  
Inflorescence type: **spica**  
Dicliny: **monoecious**  
Pollination syndrome: **wind-pollination**

### **Fruit, seed and dispersal**

Fruit type: **dry fruit - cluster of four one-seeded nutlets**  
Reproduction type: **mostly vegetatively, rarely by seed/spores**  
Dispersal unit (diaspore): **fruit, infrutescence or its part, shoot fragment**  
Dispersal strategy: **Wolffia (mainly hydrochory)**  
Myrmecochory: **non-myrmecochorous (b)**

### **Belowground organs and clonality**

Shoot metamorphosis: **stolon**  
Storage organ: **stolon**  
Type of clonal growth organ: **stolon**  
Freely dispersible organs of clonal growth: **present**  
Shoot life span (cyclicality): **monocyclic shoots prevailing**  
Branching type of stem-derived organs of clonal growth: **sympodial**  
Primary root: **absent**  
Persistence of the clonal growth organ [year]: **1**  
Number of clonal offspring: **3.5**  
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): **10**  
Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **8**  
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): **18**  
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): **8**  
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): **18**  
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): **14**

Ploidy level (x): **2**  
2C genome size [Mbp]: **444.87**  
1Cx monoploid genome size [Mbp]: **222.44**  
Genomic GC content: **36.4 %**

## 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: **12 - permanently or almost permanently submerged aquatic plant**

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

Nutrient indicator value: **5 - occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites**

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

### Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-0.52**

Herb layer disturbance frequency indicator value: **-0.52**

Whole-community disturbance severity indicator value: **0.12**

Herb layer disturbance severity indicator value: **0.16**

Whole-community structure based disturbance indicator value: **0.54**

Herb layer structure-based disturbance indicator value: **0.54**

## Habitat and sociology

### Occurrence in habitats

#### 3 Aquatic vegetation

3B Macrophytic vegetation of water streams: **3 - dominant**

### 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 alliances: [VBC \*Batrachion fluitantis\*](#)

Diagnostic taxon of associations: [VBC02 \*Myriophylletum alterniflori\*](#)

### Constant taxon

Constant taxon of associations: [VBC02 \*Myriophylletum alterniflori\*](#)

### Dominant taxon

Dominant taxon of associations: [VBC02 \*Myriophylletum alterniflori\*](#)

### Ecological specialization indices

Ecological specialization index for all vegetation types: **6.3**  
Ecological specialization index for non-forest vegetation: **6.1**  
Colonization ability  
Index of colonization success (ICS): **1**

### **Distribution and frequency**

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

Floristic region: **circumpolar**

Continentality degree: **4**

Distribution range extension along the continentality gradient: **4**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **24**

taxon.data.freq\_in\_quad: **39**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.1 %**

Occurrence frequency in vegetation plots with a cover above 5%: **69 %**

Occurrence frequency in vegetation plots with a cover above 25%: **54.8 %**

Occurrence frequency in vegetation plots with a cover above 50%: **26.2 %**

Mean percentage cover in vegetation plots: **34.6 %**

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: **1**

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

Number of broad habitats in which the taxon occurs: **1**

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

### **Threats and protection**

Red List 2017 (national categories): **C2r - endangered taxon, rare**

Red List 2017 (IUCN categories): **VU - vulnerable**

Legal protection: **not protected by law**