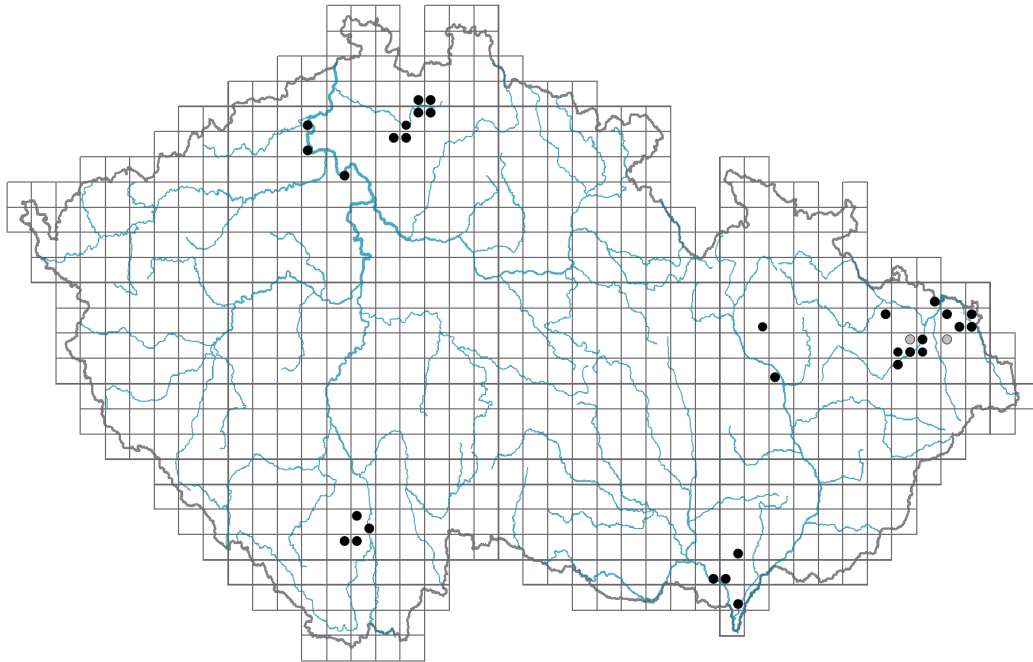


# *Najas minor*

## 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]: **0.05-0.25**

Growth form: **annual herb**

Life form: **hydrophyte**

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

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

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

Life strategy (Pierce method, R-score): **100 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **opposite, verticillate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **summer green**

Leaf anatomy: **hydromorphic**

## Flower

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

Flower colour: **green**

Perianth type: **flower achlamydeous**  
Inflorescence type: **flores solitarii**  
Dicliny: **monoecious**  
Generative reproduction type: **facultative allogamy**  
Pollination syndrome: **water-pollination**

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

Fruit type: **dry fruit - achene/cypsela/samara**  
Reproduction type: **by seed/spores and vegetatively**  
Dispersal unit (diaspore): **seed, fruit, infrutescence or its part, shoot fragment**  
Dispersal strategy: **Wolffia (mainly hydrochory)**  
Myrmecochory: **non-myrmecochorous (b)**

### **Belowground organs and clonality**

Shoot life span (cyclicity): **monocyclic shoots prevailing**  
Primary root: **absent**  
Number of clonal offspring: **0**  
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): **0**  
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): **0**

### **Trophic mode**

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

### **Taxon origin**

Origin in the Czech Republic: **native**

### **Ecological indicator values**

Ellenberg-type indicator values  
Light indicator value: **6 - transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area**  
Temperature indicator value: **7 - heat indicator, occurring in relatively warm lowlands**  
Moisture indicator value: **12 - permanently or almost permanently submerged aquatic plant**  
Reaction indicator value: **8 - transition between values 7 and 9, occurring mostly in**

## calcium-rich conditions

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

Salinity indicator value: **2 - oligohaline, often on soils with very low salt content**

## Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

3A Macrophytic vegetation of eutrophic and mesotrophic still waters: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **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 associations: [VBB17 \*Najadetum minoris\*](#)

Constant taxon

Constant taxon of associations: [VBB17 \*Najadetum minoris\*](#)

Dominant taxon

Dominant taxon of associations: [VBB17 \*Najadetum minoris\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5**

Ecological specialization index for non-forest vegetation: **5.3**

## Distribution and frequency

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

Floristic region: **Europe, Asia, Africa**

Continental degree: **7**

Distribution range extension along the continentality gradient: **7**

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

Expansive taxon in the region: **Bohemian Moravian Mesophyticum, Carpathian Mesophyticum**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **27**

taxon.data.freq\_in\_quad: **35**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0 %**

Occurrence frequency in vegetation plots with a cover above 5%: **55.6 %**

Occurrence frequency in vegetation plots with a cover above 25%: **55.6 %**

Occurrence frequency in vegetation plots with a cover above 50%: **55.6 %**

Mean percentage cover in vegetation plots: **44.4 %**

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: **2**

Number of narrow habitats in which the taxon has its optimum: **0**

Number of broad habitats in which the taxon occurs: **2**

Number of broad habitats in which the taxon has its optimum: **0**

### **Threats and protection**

Red List 2017 (national categories): **C1b - critically threatened taxon, rare and declining**

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

Legal protection: **critically threatened taxon**