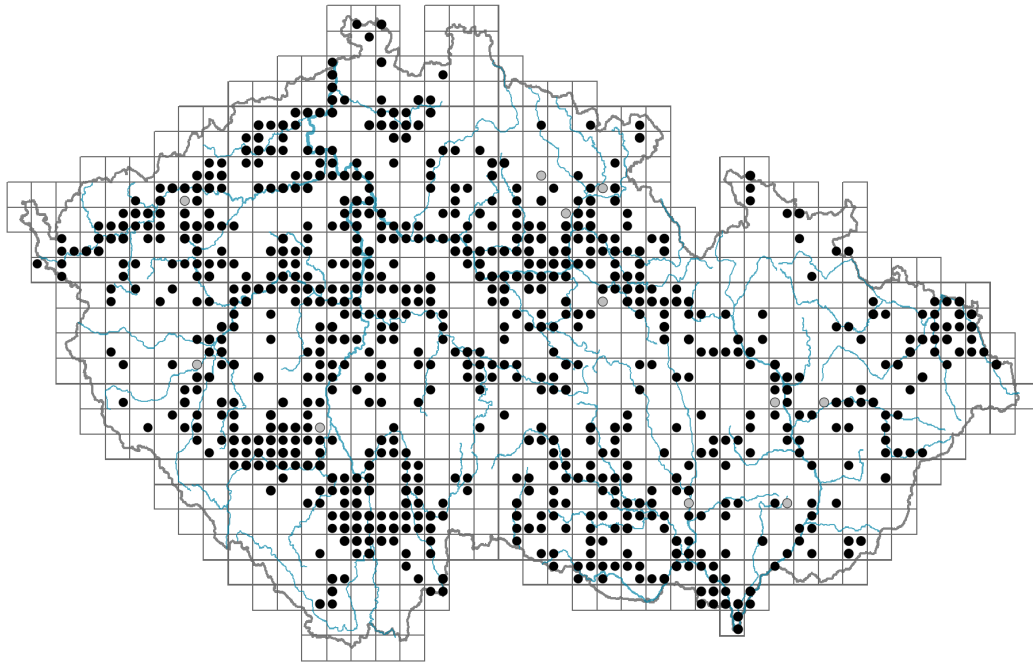


# *Myriophyllum spicatum*

## 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]: **0.4**

Growth form: **clonal herb**

Life form: **hydrophyte**

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

Life strategy (Pierce method, C-score): **1.1 %**

Life strategy (Pierce method, S-score): **44.9 %**

Life strategy (Pierce method, R-score): **54.1 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **verticillate**

Leaf shape: **simple - pinnately divided**

Stipules: **absent**

Petiole: **absent**

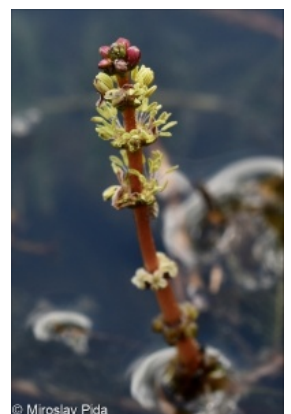
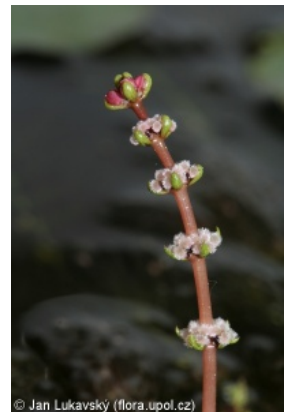
## Flower

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

Flower colour: **red**

Perianth type: **reduced or absent**

Perianth fusion: **reduced**



Calyx fusion: **aposepalous**

Inflorescence type: **spica**

Generative reproduction type: **facultative allogamy**

## Fruit, seed and dispersal

Fruit type: **dry fruit - cluster of four one-seeded nutlets**

Dispersal unit (diaspore): **fruit, infructescence or its part, shoot fragment**

Dispersal strategy: **Wolffia (mainly hydrochory)**

Myrmecochory: **non-myrmecochorous (b)**

## Belowground organs and clonality

Type of clonal growth organ: **stolon**

Freely dispersible organs of clonal growth: **present**

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]:

Number of clonal offspring:

Lateral spreading distance by clonal growth [m]: **0.13**

Clonal index: **7**

## 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):

Number of buds per shoot at a depth greater than 10 cm (root buds excluded):

Size of the belowground bud bank (root buds excluded): **13**

Depth of the belowground bud bank (root buds excluded) [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):

Number of buds per shoot at a depth greater than 10 cm (root buds included):

Size of the belowground bud bank (root buds included): **13**

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

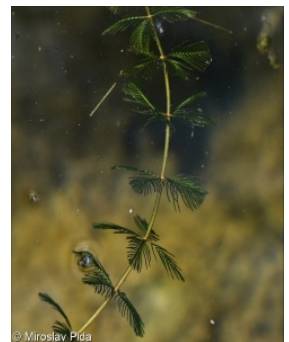
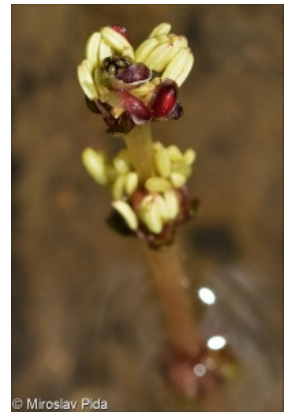
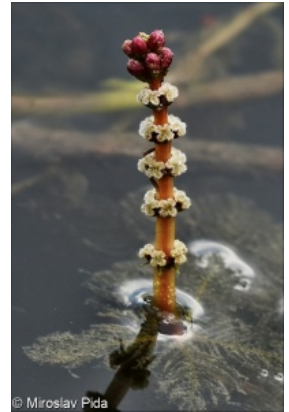
Chromosome number (2n): **42 (28, 36)**

Ploidy level (x): **6 (2, 3)**

2C genome size [Mbp]: **1554.08**

1Cx monoploid genome size [Mbp]: **259.01**

Genomic GC content: **38 %**



## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **5 - semi-shade plant, only exceptionally occurring in full light, but usually at more than 10% of the diffuse radiation incident in an open area**

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

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: **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: **-0.5**

Herb layer disturbance frequency indicator value: **-0.5**

Whole-community disturbance severity indicator value: **0.14**

Herb layer disturbance severity indicator value: **0.18**

Whole-community structure based disturbance indicator value: **0.53**

Herb layer structure-based disturbance indicator value: **0.53**



## Habitat and sociology

Occurrence in habitats

### 3 Aquatic vegetation

3A Macrophytic vegetation of eutrophic and mesotrophic still waters: **3 - dominant**

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

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

### 4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **1 - rare occurrence**

4C Eutrophic vegetation of muddy substrata: **1 - rare occurrence**

4E Reed vegetation of brooks: **1 - rare occurrence**

4H Vegetation of low annual hygrophilous herbs: **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: [VB Potametea](#)

Diagnostic taxon of associations: [VBB07 Potamo pectinati-Myriophylletum spicati](#), [VBB16 Najadetum marinae](#), [VBB17 Najadetum minoris](#), [VBD07 Callitrichetum](#)

## [hermaphroditicae](#)

Constant taxon

Constant taxon of associations: [VBB07 Potamo pectinati-Myriophylletum spicati](#),  
[VBB16 Najadetum marinae](#), [VBD07 Callitrichetum hermaphroditicae](#)

Dominant taxon

Dominant taxon of associations: [VBB07 Potamo pectinati-Myriophylletum spicati](#),  
[VBB08 Myriophylletum verticillati](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.6**

Ecological specialization index for non-forest vegetation: **4.4**

Colonization ability

Index of colonization success (ICS): **2**

Index of colonization potential (ICP): **2**

Optimum successional age [years]: **22.5**

## **Distribution and frequency**

Distribution range extension along the continentality gradient: **9**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 404

taxon.data.freq\_in\_quad: 796

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.1 %**

Occurrence frequency in vegetation plots with a cover above 5%: **45.7 %**

Occurrence frequency in vegetation plots with a cover above 25%: **33.2 %**

Occurrence frequency in vegetation plots with a cover above 50%: **31.4 %**

Mean percentage cover in vegetation plots: **28.8 %**

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: **7**

Number of narrow habitats in which the taxon has its optimum: **2**

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

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

## **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**