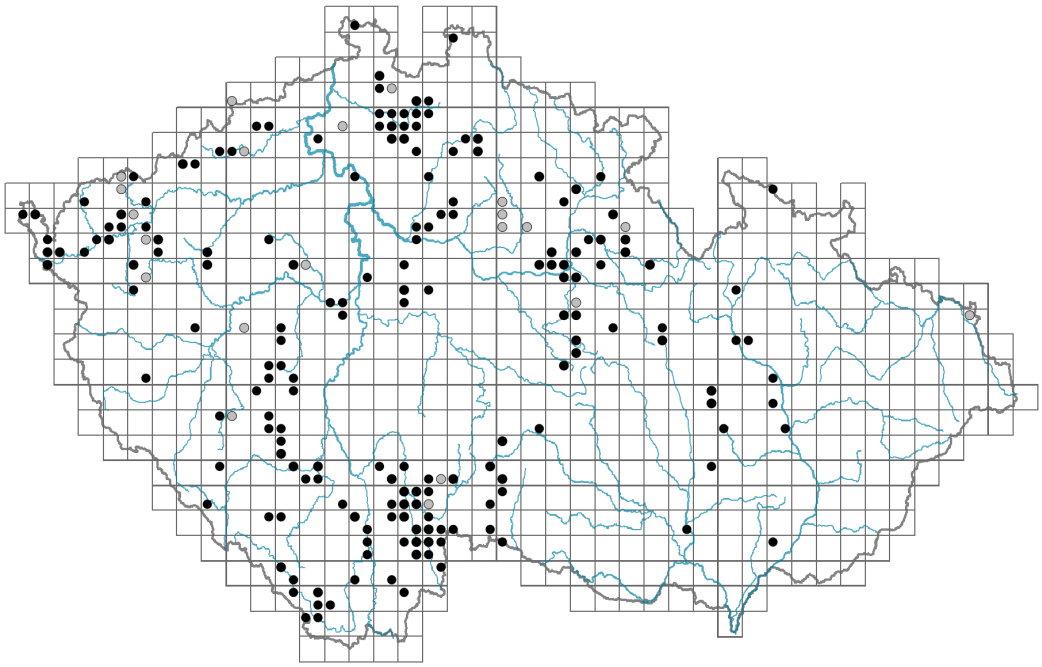
Sparganium natans

Distribution

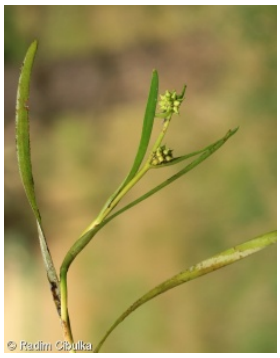


Map info

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]: **0.1–0.4**
Growth form: **clonal herb**
Life form: **hydrophyte**
Life strategy: **CS – competitor/stress-tolerator**
Life strategy (Pierce method based on leaf traits): **R/CR**
Life strategy (Pierce method, C-score): **22.7 %**
Life strategy (Pierce method, S-score): **0 %**
Life strategy (Pierce method, R-score): **77.4 %**

Leaf

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

Flower

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

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Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**
Flower colour: **green**
Perianth type: **reduced**
Perianth fusion: **reduced**
Inflorescence type: **racemus e capitulis compositus**
Dicliny: **monoecious**
Generative reproduction type: **facultative allogamy**
Pollination syndrome: **wind-pollination**

Fruit, seed and dispersal

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

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): **dicyclic or polycyclic shoots prevailing**
Branching type of stem-derived organs of clonal growth: **sympodial**
Primary root: **absent**
Persistence of the clonal growth organ [year]: **2**
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): **0**
Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **10**
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): **10**
Depth of the belowground bud bank (root buds exluded) [cm]: **5**
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): **10**
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): **10**
Depth of the belowground bud bank (root buds included) [cm]: **5**

Trophic mode

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

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Karyology

Chromosome number (2n): **30**
Ploidy level (x): **2**
2C genome size [Mbp]: **960.72**
1Cx monoploid genome size [Mbp]: **480.36**
Genomic GC content: **42.4 %**

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: **11 – aquatic plant rooted under water, but at least temporarily with leaves above the surface, or a plant floating on the water surface**
Reaction indicator value: **4 – transition between values 3 and 5**
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: **-0.68**
Herb layer disturbance frequency indicator value: **-0.68**
Whole-community disturbance severity indicator value: **0.02**
Herb layer disturbance severity indicator value: **0.08**
Whole-community structure based disturbance indicator value: **0.67**
Herb layer structure-based disturbance indicator value: **0.65**

Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

3C Macrophytic vegetation of oligotrophic lakes and pools: **2 – optimum**

4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **1 – rare occurrence**
4E Reed vegetation of brooks: **1 – rare occurrence**

5 Vegetation of springs and mires

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

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does not spontaneously occur in Czech forests

Diagnostic taxon

Diagnostic taxon of classes: **VD *Littorelletea uniflorae***

Diagnostic taxon of alliances: **VDC *Sphagno-Utricularion***

Diagnostic taxon of associations: **VDC01 *Sparganio minimi-Utricularietum intermediae***

Constant taxon

Constant taxon of alliances: **VDC *Sphagno-Utricularion***

Constant taxon of associations: **VDC01 *Sparganio minimi-Utricularietum intermediae***

Dominant taxon

Dominant taxon of associations: **VDC01 *Sparganio minimi-Utricularietum intermediae***

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.5**

Ecological specialization index for non-forest vegetation: **4.5**

Distribution and frequency

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

Floristic region: **circumpolar**

Distribution range extension along the continentality gradient: **6**

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: 155

taxon.data.freq_in_quad: 210

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%: **80.6 %**

Occurrence frequency in vegetation plots with a cover above 25%: **71 %**

Occurrence frequency in vegetation plots with a cover above 50%: **48.4 %**

Mean percentage cover in vegetation plots: **45.6 %**

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: **4**

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

Number of broad habitats in which the taxon occurs: **3**

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

Threats and protection

Red List 2017 (national categories): **C2b – endangered taxon, rare and declining**

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

Legal protection: **endangered taxon**

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