Alisma plantago-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]: **0.2–1.3**
Growth form: **clonal herb**
Life form: **geophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**
Life strategy (Pierce method based on leaf traits): **C/CR**
Life strategy (Pierce method, C-score): **68.1 %**
Life strategy (Pierce method, S-score): **0 %**
Life strategy (Pierce method, R-score): **32 %**

Leaf

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

Flower

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

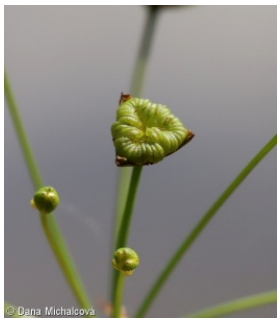
Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**
Flower colour: **white**
Flower symmetry: **actinomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **free**
Calyx fusion: **aposepalous**
Inflorescence type: **panicula**
Dicliny: **synoecious**
Generative reproduction type: **mixed mating**
Pollination syndrome: **wind-pollination, insect-pollination**

Fruit, seed and dispersal

Fruit type: **dry fruit – head of achenes**
Fruit colour: **brown**
Reproduction type: **by seed/spores and vegetatively**
Dispersal unit (diaspore): **seed, fruit, infrutescence or its part**
Dispersal strategy: **Sparganium (mainly autochory and hydrochory)**
Myrmecochory: **non-myrmecochorous (b)**

Belowground organs and clonality

Shoot metamorphosis: **shoot tuber, turion**
Storage organ: **shoot tuber, turion**
Type of clonal growth organ: **epigeogenous 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: **2.1**
Lateral spreading distance by clonal growth [m]: **0.01**
Clonal index: **3**



Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **3**
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): **10**
Depth of the belowground bud bank (root buds exluded) [cm]: **4**
Number of buds per shoot at the soil surface (root buds included): **3**
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): **10**
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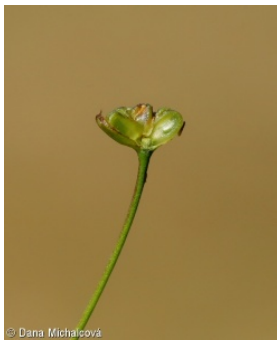


Trophic mode

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]: **18490.3**
1Cx monoploid genome size [Mbp]: **9245.15**
Genomic GC content: **42.7 %**

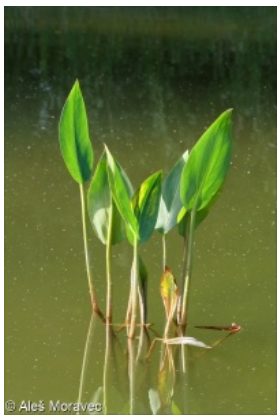
Taxon origin

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: **10 – aquatic plant that survives long periods without soil flooding**
Reaction indicator value: **7x – indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions (generalist)**
Nutrient indicator value: **8 – pronounced nutrient indicator**
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: **-0.65**
Herb layer disturbance frequency indicator value: **-0.61**
Whole-community disturbance severity indicator value: **0.23**
Herb layer disturbance severity indicator value: **0.28**
Whole-community structure based disturbance indicator value: **0.6**
Herb layer structure-based disturbance indicator value: **0.6**

Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

3A Macrophytic vegetation of eutrophic and mesotrophic still waters: **1 – rare occurrence**
3B Macrophytic vegetation of water streams: **1 – rare occurrence**
3C Macrophytic vegetation of oligotrophic lakes and pools: **2 – optimum**

4 Wetland and riverine herbaceous vegetation

4A Reed-beds of eutrophic still waters: **2 – optimum**
4B Halophilous reed and sedge beds: **1 – rare occurrence**
4C Eutrophic vegetation of muddy substrata: **2 – optimum**
4D Riverine reed vegetation: **1 – rare occurrence**

4E Reed vegetation of brooks: **2 – optimum**
4F Mesotrophic vegetation of muddy substrata: **1 – rare occurrence**
4G Tall-sedge beds: **2 – optimum**
4H Vegetation of low annual hygrophilous herbs: **2 – optimum**
4I Vegetation of nitrophilous annual hygrophilous herbs: **2 – optimum**

5 Vegetation of springs and mires

5D Calcareous fens: **1 – rare occurrence**

6 Meadows and mesic pastures

6D Alluvial meadows of lowland rivers: **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: **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**

Diagnostic taxon

Diagnostic taxon of classes: **MA *Isoëto-Nano-Juncetea***
Diagnostic taxon of alliances: **MCC *Eleocharito palustris-Sagittarion sagittifoliae***
Diagnostic taxon of associations: **MCC05 *Scirpetum radicantis***, **MCC07 *Alopecuro-Alismatetum plantaginis-aquaticae***

Constant taxon

Constant taxon of associations: **MCC05 *Scirpetum radicantis***, **MCC07 *Alopecuro-Alismatetum plantaginis-aquaticae***, **MCC11 *Bolboschoenetum yagarae***, **VCA02 *Charetum braunii***

Dominant taxon

Dominant taxon of associations: **MCC07 *Alopecuro-Alismatetum plantaginis-aquaticae***, **MCC08 *Alismatetum lanceolati***

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.9**
Ecological specialization index for non-forest vegetation: **4**
Ecological specialization index for forest vegetation: **5**

Colonization ability

Index of colonization success (ICS): **5**
Index of colonization potential (ICP): **3**
Optimum successional age [years]: **15**

Distribution and frequency

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

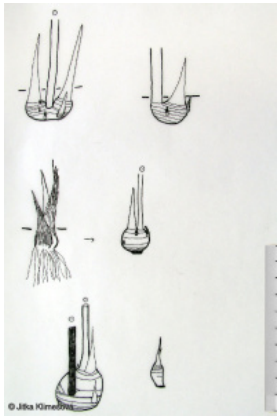
Floristic region: **Europe, Asia, Africa**
Distribution range extension along the continentality gradient: **9**
Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt**
Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 629
taxon.data.freq_in_quad: 1993

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **3.3 %**
Occurrence frequency in vegetation plots with a cover above 5%: **15.9 %**
Occurrence frequency in vegetation plots with a cover above 25%: **9.1 %**
Occurrence frequency in vegetation plots with a cover above 50%: **4.9 %**
Mean percentage cover in vegetation plots: **7.9 %**
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: **19**
Number of narrow habitats in which the taxon has its optimum: **7**
Number of broad habitats in which the taxon occurs: **7**
Number of broad habitats in which the taxon has its optimum: **2**



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**