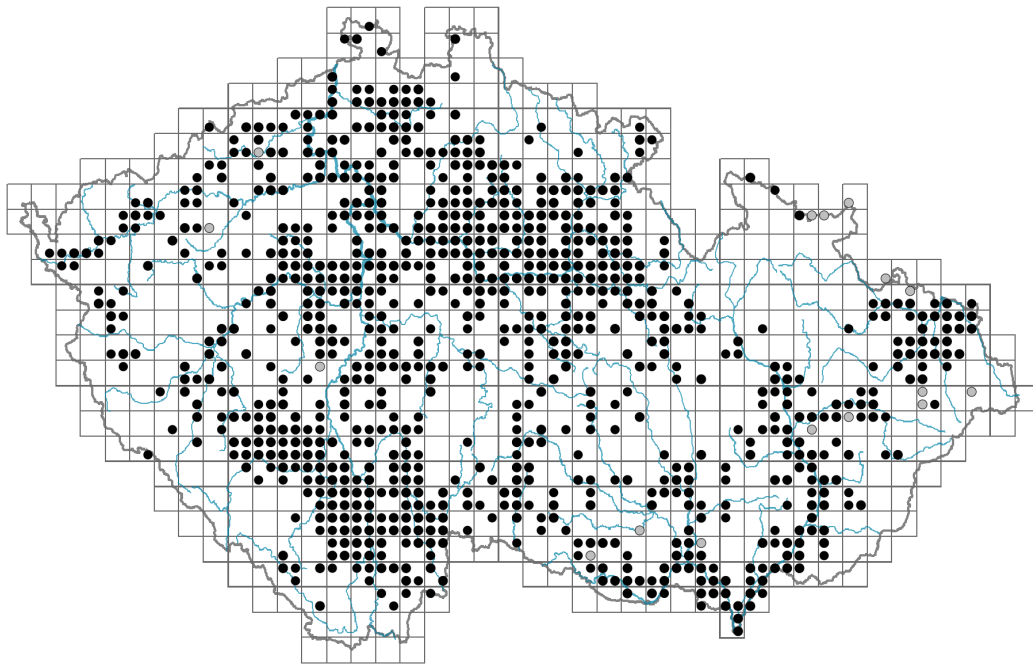


Ceratophyllum demersum

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]: **0.3-1.5**

Growth form: **clonal herb**

Life form: **hydrophyte**

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

Life strategy (Pierce method, C-score): **12.3 %**

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

Life strategy (Pierce method, R-score): **87.7 %**

Leaf

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

Leaf arrangement (phyllotaxis): **verticillate**

Leaf shape: **simple - forked**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **summer green**

Leaf anatomy: **hydromorphic**



Flower

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

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**

Flower colour: **green**
Flower symmetry: **actinomorphic**
Perianth type: **reduced**
Perianth fusion: **reduced**
Inflorescence type: **flores solitarii**
Dicliny: **monoecious**
Generative reproduction type: **facultative autogamy**
Pollination syndrome: **water-pollination**

Fruit, seed and dispersal

Fruit type: **dry fruit - nut**
Fruit colour: **brown**
Reproduction type: **mostly vegetatively, rarely by seed/spores**
Dispersal unit (diaspore): **fruit, infrutescence or its part, turion, shoot fragment**
Dispersal strategy: **Wolffia (mainly hydrochory)**
Myrmecochory: **non-myrmecochorous (b)**

Belowground organs and clonality

Shoot metamorphosis: **turion**
Storage organ: **turion**
Type of clonal growth organ: **turion**
Freely dispersible organs of clonal growth: **present**
Primary root: **absent**
Persistence of the clonal growth organ [year]: **1**
Number of clonal offspring: **6**
Lateral spreading distance by clonal growth [m]: **0**
Clonal index: **7**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **5**
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): **5**
Depth of the belowground bud bank (root buds excluded) [cm]: **1**
Number of buds per shoot at the soil surface (root buds included): **5**
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): **5**
Depth of the belowground bud bank (root buds included) [cm]: **1**

Trophic mode

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

Karyology

Chromosome number (2n): **24**

Ploidy level (x): **2**

2C genome size [Mbp]: **1716.64**

1Cx monoploid genome size [Mbp]: **858.32**

Genomic GC content: **37.1 %**

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: **7 - indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**

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: **-0.3**

Herb layer disturbance frequency indicator value: **-0.3**

Whole-community disturbance severity indicator value: **0.18**

Herb layer disturbance severity indicator value: **0.22**

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

Herb layer structure-based disturbance indicator value: **0.56**

Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

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

4F Mesotrophic vegetation of muddy substrata: **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: [VA Lemnetea](#)

Diagnostic taxon of alliances: [VAC Hydrocharition morsus-ranae](#)

Diagnostic taxon of associations: [VAA06 Lemno gibbae-Wolffietum arrhizae](#), [VAC01 Hydrocharitetum morsus-ranae](#), [VAC02 Stratiotetum aloidis](#), [VAC03 Ceratophylletum demersi](#), [VBB17 Najadetum minoris](#), [VBD07 Callitrichetum hermaphroditicae](#)

Constant taxon

Constant taxon of alliances: [VAC Hydrocharition morsus-ranae](#)

Constant taxon of associations: [VAC02 Stratiotetum aloidis](#), [VAC03 Ceratophylletum demersi](#), [VBB17 Najadetum minoris](#), [VBD07 Callitrichetum hermaphroditicae](#)

Dominant taxon

Dominant taxon of associations: [VAC01 Hydrocharitetum morsus-ranae](#), [VAC02 Stratiotetum aloidis](#), [VAC03 Ceratophylletum demersi](#), [VBA02 Nymphaeetum albae](#), [VBA05 Trapetum natantis](#), [VBB15 Potametum trichoidis](#), [VBB17 Najadetum minoris](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.1**

Ecological specialization index for non-forest vegetation: **5.1**

Colonization ability

Index of colonization success (ICS): **1**

Index of colonization potential (ICP): **1**

Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional, meridional, subtropical, tropical, austral or antarctic**

Floristic region: **circumpolar**

Distribution range extension along the continentality gradient: **8**

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: 421

taxon.data.freq_in_quad: 906

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.1 %**

Occurrence frequency in vegetation plots with a cover above 5%: **52.8 %**

Occurrence frequency in vegetation plots with a cover above 25%: **40.1 %**

Occurrence frequency in vegetation plots with a cover above 50%: **34.6 %**

Mean percentage cover in vegetation plots: **33.3 %**

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: **8**

Number of narrow habitats in which the taxon has its optimum: **3**

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

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**