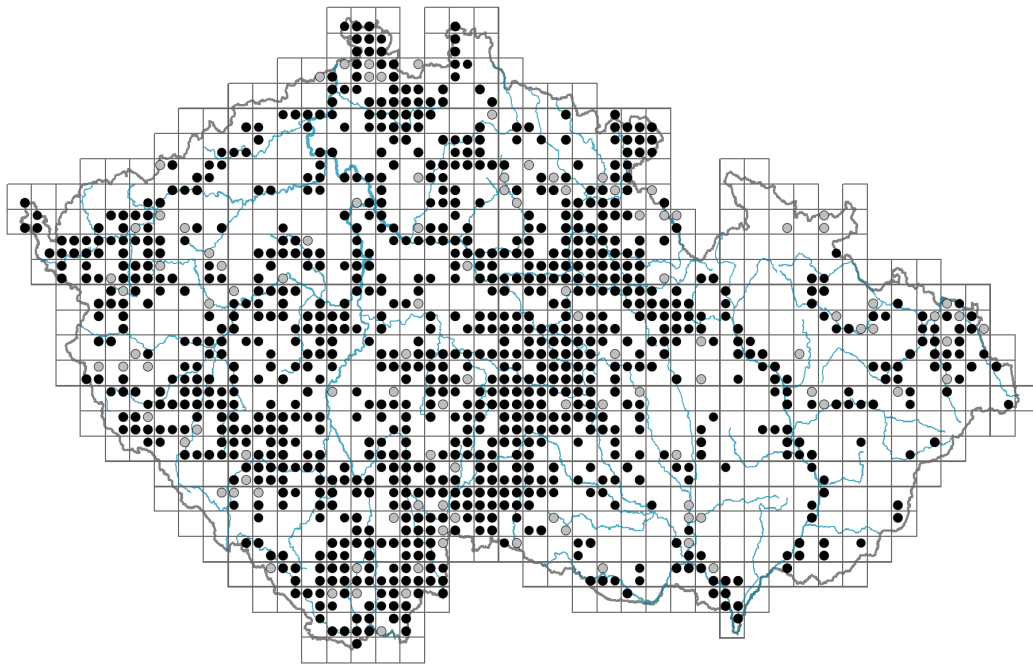


# *Elodea canadensis*

## 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): **SR**

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

Life strategy (Pierce method, S-score): **44.2 %**

Life strategy (Pierce method, R-score): **55.8 %**

## Leaf

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

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

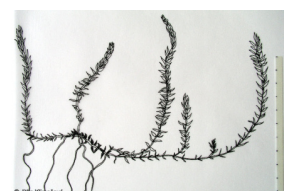
Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **evergreen**

Leaf anatomy: **hydromorphic**



## Flower

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

Flower colour: **white**

Perianth type: **reduced**  
Perianth fusion: **reduced**  
Calyx fusion: **aposepalous**  
Inflorescence type: **flores solitarii**  
Dicliny: **dioecious**  
Generative reproduction type: **allogamy**  
Pollination syndrome: **water-pollination**

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

Fruit type: **dry fruit - capsule**  
Reproduction type: **only vegetatively**  
Dispersal unit (diaspore): **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**  
Shoot life span (cyclicality): **monocyclic shoots prevailing**  
Branching type of stem-derived organs of clonal growth: **sympodial**  
Primary root: **absent**  
Persistence of the clonal growth organ [year]: **1.1**  
Number of clonal offspring: **6**  
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): **6**  
Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **4**  
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 excluded) [cm]: **3**  
Number of buds per shoot at the soil surface (root buds included): **6**  
Number of buds per shoot at a depth of 0–10 cm (root buds included): **4**  
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]: **3**

### **Trophic mode**

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

## Karyology

Chromosome number (2n): **48 (24, 32, 40, 56, 64, 72, 96)**

Ploidy level (x): **6**

2C genome size [Mbp]: **9256.65**

1Cx monoploid genome size [Mbp]: **1542.78**

Genomic GC content: **43 %**

## Taxon origin

Origin in the Czech Republic: **neophyte**

Invasion status: **naturalized**

Geographic origin: **North America**

Year of the first record in the wild: **1878**

Period of introduction: **Late Modern Period (1800-1950)**

Introduction pathway: **intentional - ornamental, intentional - nature**

## 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: **6 - transition between values 5 and 7**

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: **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: **-0.51**

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

Whole-community disturbance severity indicator value: **0.13**

Herb layer disturbance severity indicator value: **0.17**

Whole-community structure based disturbance indicator value: **0.54**

Herb layer structure-based disturbance indicator value: **0.55**

## 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**

4B Halophilous reed and sedge beds: **1 - rare occurrence**

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

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

## 12 Forests

12A Alder carrs: **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 alliances: [VBB Potamion](#)

Diagnostic taxon of associations: [VBA04 Nupharetum pumilae](#), [VBB06 Elodeetum canadensis](#), [VBD07 Callitrichetum hermaphroditicae](#)

Constant taxon

Constant taxon of associations: [VBA04 Nupharetum pumilae](#), [VBB06 Elodeetum canadensis](#), [VBD07 Callitrichetum hermaphroditicae](#)

Dominant taxon

Dominant taxon of associations: [MCH01 Caricetum acutiformi-paniculatae](#), [VBA04 Nupharetum pumilae](#), [VBB06 Elodeetum canadensis](#), [VBB09 Potametum tenuifolii](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.7**

Ecological specialization index for non-forest vegetation: **4.7**

## Distribution and frequency

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

Floristic region: **Europe, Americas, Australia, New Zealand**

Continental degree: **6**

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

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: **475**

taxon.data.freq\_in\_quad: **1063**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.3 %**

Occurrence frequency in vegetation plots with a cover above 5%: **57.5 %**

Occurrence frequency in vegetation plots with a cover above 25%: **45.9 %**

Occurrence frequency in vegetation plots with a cover above 50%: **41.2 %**

Mean percentage cover in vegetation plots: **38.7 %**

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: **2**

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): **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**