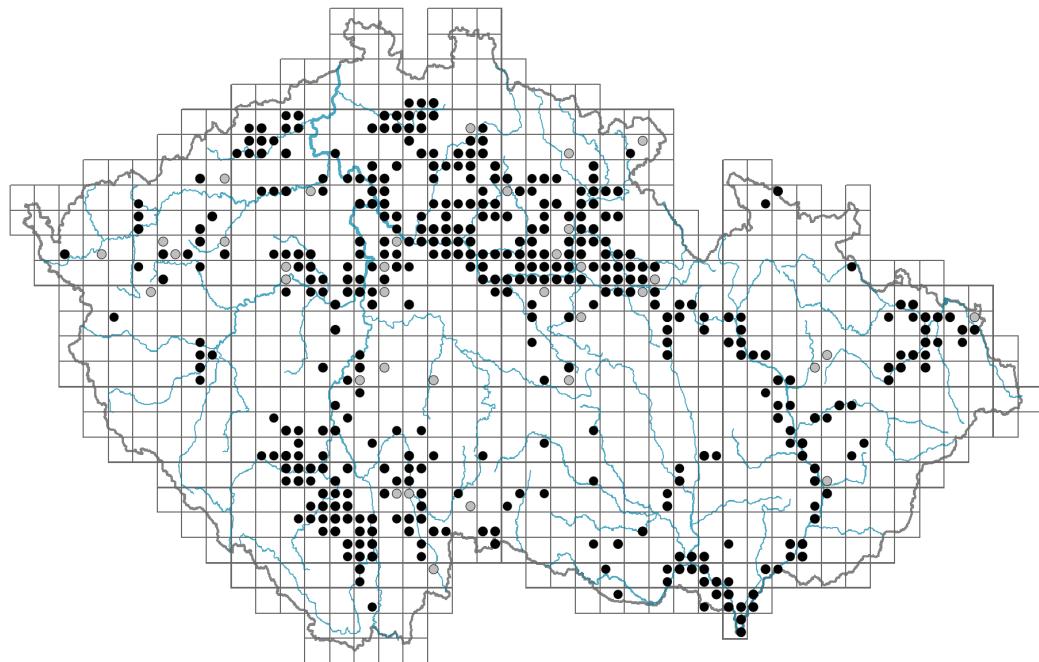


# *Lemna trisulca*

## 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]: **0.005-0.015**

Growth form: **clonal herb**

Life form: **hydrophyte**

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

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

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

Life strategy (Pierce method, R-score): **100 %**

## Leaf

Leaf presence and metamorphosis: **leaves absent**

Stipules: **absent**

Leaf anatomy: **hydromorphic**

## Flower

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

Perianth type: **flower achlamydeous**

Dicliny: **monoecious**

Generative reproduction type: **facultative allogamy**

Pollination syndrome: **wind-pollination, water-pollination, insect-pollination, selfing**

## Fruit, seed and dispersal

Fruit type: **dry fruit - follicle**

Reproduction type: **mostly vegetatively, rarely by seed/spores**

Dispersal unit (diaspore): **seed, fruit, infrutescence or its part, budding**

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

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

## Belowground organs and clonality

Shoot metamorphosis: **stolon, turion**

Storage organ: **turion**

Type of clonal growth organ: **budding plant**

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

Primary root: **absent**

Persistence of the clonal growth organ [year]:

Number of clonal offspring:

Lateral spreading distance by clonal growth [m]:

Clonal index: 7

### Bud bank

Number of buds per shoot at the soil surface (root buds excluded):

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):

Number of buds per shoot at the soil surface (root buds included):

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):

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

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

Salinity indicator value: **0 - not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-0.36**

Herb layer disturbance frequency indicator value: **-0.35**

Whole-community disturbance severity indicator value: **0.19**

Herb layer disturbance severity indicator value: **0.23**

Whole-community structure based disturbance indicator value: **0.56**

Herb layer structure-based disturbance indicator value: **0.59**

## Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

3A Macrophytic vegetation of eutrophic and mesotrophic still waters: **2 - optimum**

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**

4C Eutrophic vegetation of muddy substrata: **2 - optimum**

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

4F Mesotrophic vegetation of muddy substrata: **1 - rare occurrence**

4G Tall-sedge beds: **1 - rare occurrence**

11 Heathlands and scrub

11I Willow carrs: **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: [\*\*VA Lemnetea\*\*](#)

Diagnostic taxon of alliances: [\*\*VAB Utricularion vulgaris, VAC Hydrocharition morsus-ranae\*\*](#)

Diagnostic taxon of associations: [\*\*VAA01 Lemnetum trisulcae, VAA06 Lemno gibbae-Wolffietum arrhizae, VAA11 Ricciocarpetum natantis, VAC01 Hydrocharitetum morsus-ranae, VAC02 Stratiotetum aloidis, VAC04 Potamo-Ceratophylletum submersi, VBB12 Potametum praelongi, VBB13 Potametum zizii, VBD06 Hottonietum palustris, VBD07 Callitrichetum hermaphroditicae\*\*](#)

Constant taxon

Constant taxon of associations: [\*\*VAA01 Lemnetum trisulcae, VAA06 Lemno gibbae-Wolffietum arrhizae, VAC04 Potamo-Ceratophylletum submersi, VBB13 Potametum zizii, VBD07 Callitrichetum hermaphroditicae\*\*](#)

Dominant taxon

Dominant taxon of associations: [\*\*VAA01 Lemnetum trisulcae, VAA06 Lemno gibbae-Wolffietum arrhizae, VAA09 Lemno minoris-Riccieturn fluitantis, VBB08\*\*](#)

## [\*Myriophyllum verticillatum\*, VBD04 \*Batrachium rionii\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.8**

Ecological specialization index for non-forest vegetation: **4.8**

## Distribution and frequency

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

Floristic region: **circumpolar**

Distribution range extension along the continentality gradient: **7**

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: 254

taxon.data.freq\_in\_quad: 461

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.5 %**

Occurrence frequency in vegetation plots with a cover above 5%: **39.2 %**

Occurrence frequency in vegetation plots with a cover above 25%: **24.5 %**

Occurrence frequency in vegetation plots with a cover above 50%: **19.6 %**

Mean percentage cover in vegetation plots: **20.8 %**

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: **9**

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

Number of broad habitats in which the taxon occurs: **4**

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

## Threats and protection

Red List 2017 (national categories): **C3 - vulnerable taxon**

Red List 2017 (IUCN categories): **LC - least concern**

Legal protection: **not protected by law**