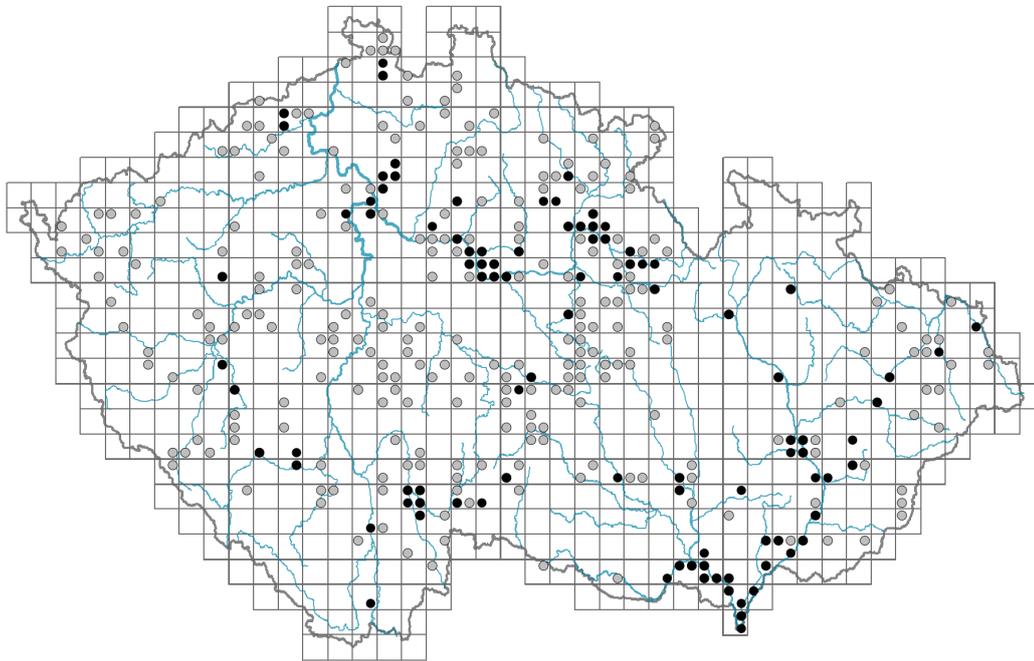


# *Nymphaea alba*

## 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]: **0.5-2**

Growth form: **clonal herb**

Life form: **hydrophyte**

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

Life strategy (Pierce method, C-score): **88 %**

Life strategy (Pierce method, S-score): **3.7 %**

Life strategy (Pierce method, R-score): **8.3 %**

## 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: **hydromorphic**

## Flower

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

Flowering phase: **6 Cornus sanguinea-Melica uniflora (start of early summer)**

Flower colour: **white**  
Flower symmetry: **actinomorphic**  
Perianth type: **calyx and corolla**  
Perianth fusion: **free**  
Calyx fusion: **aposepalous**  
Inflorescence type: **flores solitarii**  
Dicliny: **synoecious**  
Generative reproduction type: **facultative autogamy**  
Pollination syndrome: **insect-pollination, selfing**

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

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

### **Belowground organs and clonality**

Shoot metamorphosis: **rhizome**  
Storage organ: **rhizome**  
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: **monopodial**  
Primary root: **absent**  
Persistence of the clonal growth organ [year]: **3.3**  
Number of clonal offspring: **0.7**  
Lateral spreading distance by clonal growth [m]: **0.18**  
Clonal index: **4**

### **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): **15**  
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): **18**  
Depth of the belowground bud bank (root buds excluded) [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): **15**  
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): **18**  
Depth of the belowground bud bank (root buds included) [cm]: **4**

### **Trophic mode**

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

## Karyology

Chromosome number (2n): **112 (84)**

Ploidy level (x): **8 (6)**

2C genome size [Mbp]: **3661.12**

1Cx monoploid genome size [Mbp]: **457.64**

Genomic GC content: **42.8 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

### Ellenberg-type indicator values

Light indicator value: **8 - light plant, only exceptionally occurring at less than 40% of diffuse radiation incident in an open area**

Temperature indicator value: **7 - heat indicator, occurring in relatively warm lowlands**

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: **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: **-0.5**

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

Whole-community disturbance severity indicator value: **0.11**

Herb layer disturbance severity indicator value: **0.15**

Whole-community structure based disturbance indicator value: **0.59**

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: **1 - rare occurrence**

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

4H Vegetation of low annual hygrophilous herbs: **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 associations: [VBA02 \*Nymphaeetum albae\*](#)

## Constant taxon

Constant taxon of associations: [VBA02 \*Nymphaeetum albae\*](#)

## Dominant taxon

Dominant taxon of associations: [VBA02 \*Nymphaeetum albae\*](#)

## Ecological specialization indices

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

Ecological specialization index for non-forest vegetation: **5**

## Distribution and frequency

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

Floristic region: **Europe**

Distribution range extension along the continentality gradient: **5**

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: **307**

taxon.data.freq\_in\_quad: **465**

## 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%: **79.4 %**

Occurrence frequency in vegetation plots with a cover above 25%: **73.5 %**

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

Mean percentage cover in vegetation plots: **47.3 %**

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: **5**

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

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

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

## Threats and protection

Red List 2017 (national categories): **C1t - critically threatened taxon, declining**

Red List 2017 (IUCN categories): **CR - critically endangered**

Legal protection: **endangered taxon**