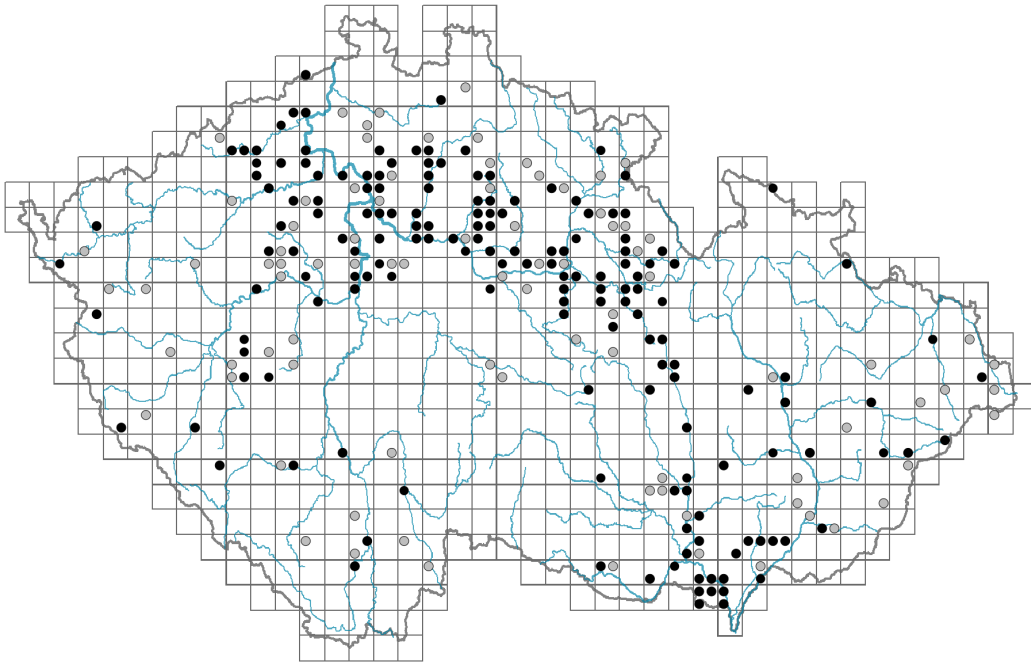


Hippuris vulgaris

Distribution



© Pavel Veselý

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]: **0.05-1.5**

Growth form: **clonal herb**

Life form: **hydrophyte**

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

Life strategy (Pierce method, C-score): **3.2 %**

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

Life strategy (Pierce method, R-score): **96.8 %**

Leaf

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

Leaf arrangement (phyllotaxis): **verticillate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **evergreen**

Leaf anatomy: **hydromorphic**

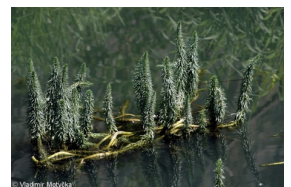
Flower

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

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



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Flower colour: **green**
 Perianth type: **flower achlamydeous**
 Inflorescence type: **flores solitarii**
 Dicliny: **gynodioecious**
 Generative reproduction type: **allogamy**
 Pollination syndrome: **wind-pollination**

Fruit, seed and dispersal

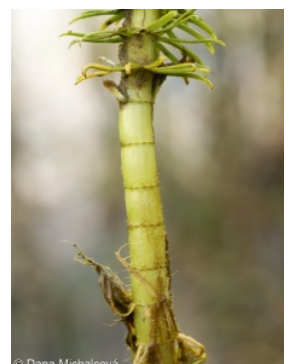
Fruit type: **dry fruit - achene/cypsela/samara**
 Fruit colour: **brown**
 Reproduction type: **by seed/spores and vegetatively**
 Dispersal unit (diaspore): **fruit, infructescence or its part, shoot fragment**
 Dispersal strategy: **Sparganium (mainly autochory and hydrochory)**
 Myrmecochory: **probably non-myrmecochorous**

Belowground organs and clonality

Shoot metamorphosis: **rhizome**
 Storage organ: **rhizome**
 Type of clonal growth organ: **hypogeogenous rhizome**
 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]: **2**
 Number of clonal offspring: **0.5**
 Lateral spreading distance by clonal growth [m]: **0.13**
 Clonal index: **5**
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): **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): **20**
 Depth of the belowground bud bank (root buds excluded) [cm]: **4**
 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): **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): **20**
 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): **32 (30)**

Ploidy level (x): **2**

2C genome size [Mbp]: **1168.37**

1Cx monoploid genome size [Mbp]: **584.18**

Genomic GC content: **36.1 %**



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: **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: **8 - transition between values 7 and 9, occurring mostly in calcium-rich conditions**

Nutrient indicator value: **6x - transition between values 5 and 7 (generalist)**

Salinity indicator value: **1 - salt tolerant, mostly on low-salt to salt-free soils, but occasionally on slightly salty soils**



Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

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

3C Macrophytic vegetation of oligotrophic lakes and pools: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation

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

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

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: [MCC04 Eleocharito palustris-Hippuridetum vulgaris](#)

Constant taxon

Constant taxon of associations: [MCC04 Eleocharito palustris-Hippuridetum vulgaris](#)

Dominant taxon

Dominant taxon of associations: [MCC04 Eleocharito palustris-Hippuridetum vulgaris](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **3.8**

Ecological specialization index for non-forest vegetation: **3.6**

Colonization ability

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

Distribution and frequency

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

Floristic region: **circumpolar**

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

Elevational belt in the Czech Republic: **lowlands, colline belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 185

taxon.data.freq_in_quad: 264

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%: **52.6 %**

Occurrence frequency in vegetation plots with a cover above 25%: **42.1 %**

Occurrence frequency in vegetation plots with a cover above 50%: **26.3 %**

Mean percentage cover in vegetation plots: **25 %**

Maximum percentage cover in vegetation plots: **63 %**

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): **EN - endangered**

Legal protection: **critically threatened taxon**