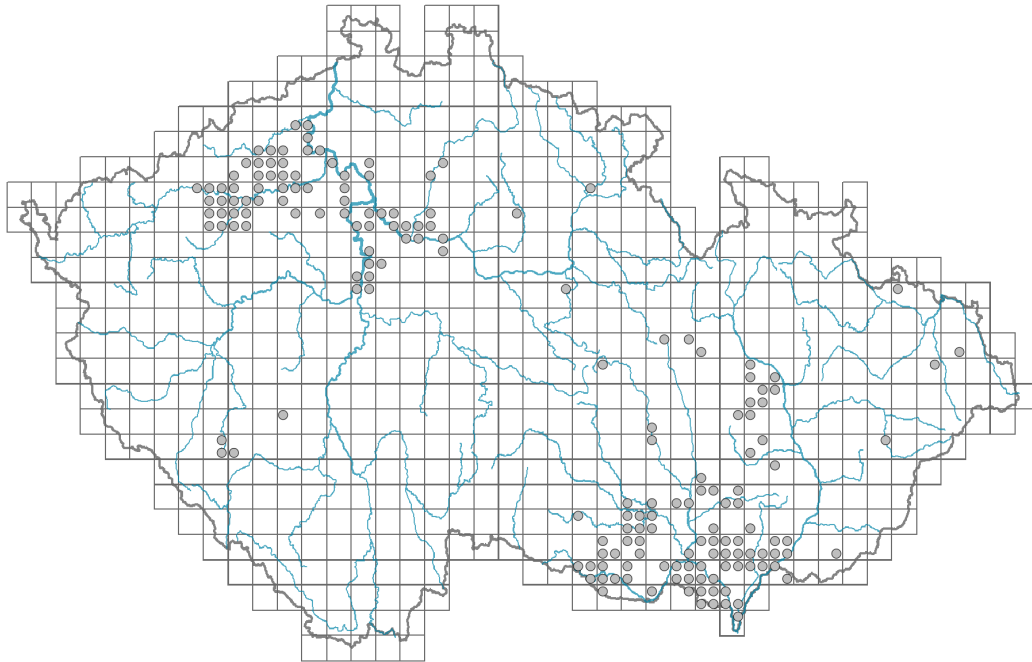


# *Verbascum phoeniceum*

## 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]: **0.3-0.7**

Growth form: **polycarpic perennial non-clonal herb**

Life form: **hemicryptophyte**

Life strategy: **CSR - competitor/stress-tolerator/ruderal**

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate, rosulate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **both present and absent**

Leaf anatomy: **scleromorphic, mesomorphic**

## Flower

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

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

Flower colour: **violet**

Flower symmetry: **zygomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **fused**



Shape of the sympetalous corolla or syntepalous perianth: **rotate**  
 Calyx fusion: **synsepalous**  
 Inflorescence type: **pseudoracemus**  
 Dicliny: **synoecious, gynomonoeious, gynodioecious**  
 Generative reproduction type: **allogamy self-incompatibility**  
 Pollination syndrome: **insect-pollination**



### Fruit, seed and dispersal

Fruit type: **dry fruit - capsule**  
 Fruit colour: **brown**  
 Reproduction type: **only by seed/spores**  
 Dispersal unit (diaspore): **seed**  
 Dispersal strategy: **Allium (mainly autochory)**  
 Myrmecochory: **non-myrmecochorous (b)**



### Belowground organs and clonality

Root metamorphosis: **primary storage root**  
 Storage organ: **primary storage root**  
 Shoot life span (cyclicality): **dicyclic or polycyclic shoots prevailing**  
 Branching type of stem-derived organs of clonal growth: **sympodial**  
 Primary root: **present**



#### 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): **8**  
 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): **13**  
 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): **8**  
 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): **13**  
 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): **35, 36**  
 Ploidy level (x): **2**  
 2C genome size [Mbp]: **783.11**  
 1Cx monoploid genome size [Mbp]: **391.56**  
 Genomic GC content: **37.3 %**



## 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: **3 - missing on damp soil**

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

Nutrient indicator value: **3 - occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites**

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

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-0.6**

Herb layer disturbance frequency indicator value: **-0.42**

Whole-community disturbance severity indicator value: **0.25**

Herb layer disturbance severity indicator value: **0.28**

Whole-community structure based disturbance indicator value: **0.5**

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

## Habitat and sociology

Occurrence in habitats

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 - rare occurrence**

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**

8C Narrow-leaved sub-continental steppes: **2 - optimum**

8D Broad-leaved dry grasslands: **1 - rare occurrence**

8E Acidophilous dry grasslands: **1 - rare occurrence**

8F Thermophilous forest fringe vegetation: **1 - rare occurrence**

9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **1 - rare occurrence**

9C Festuca grasslands on acidic sands: **2 - optimum**

9D Pannonian sand steppes: **2 - optimum**

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 - rare occurrence**

11L Tall mesic and xeric shrub: **1 - rare occurrence**

11N Low xeric scrub: **1 - rare occurrence**

12 Forests

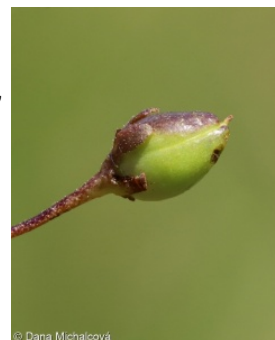
12I Sub-continental thermophilous oak forests: **1 - rare occurrence**

12L Boreo-continental pine forests: **1 - rare occurrence**

12T Robinia pseudacacia plantations: **1 - rare occurrence**



© Martina Sojnková



© Dana Michalčová



© Pavel Veselý

12W Pine and larch plantations: **1 - rare occurrence**

13 Anthropogenic vegetation

13D Perennial thermophilous ruderal vegetation: **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 alliances: [THD \*Festucion valesiaca\*](#)

Diagnostic taxon of associations: [TFC02 \*Erysimi diffusii-Agrostietum capillaris\*](#), [THA04 \*Helichryso arenarii-Festucetum pallentis\*](#), [THD06 \*Astragalo exscapit-Crambetum tatariae\*](#), [THG02 \*Avenulo pratensis-Festucetum valesiaca\*](#)

Ecological specialization indices

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

Ecological specialization index for non-forest vegetation: **5.3**

Ecological specialization index for forest vegetation: **3.8**

Colonization ability

Index of colonization success (ICS): **4**

Index of colonization potential (ICP): **5**

Optimum successional age [years]: **75**

## Distribution and frequency

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

Floristic region: **Europe, Western Asia**

Continental degree: **8**

Distribution range extension along the continentality gradient: **4**

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: **92**

taxon.data.freq\_in\_quad: **174**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.2 %**

Occurrence frequency in vegetation plots with a cover above 5%: **4.2 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0 %**

Mean percentage cover in vegetation plots: **2.5 %**

Maximum percentage cover in vegetation plots: **13 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **17**

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

Number of broad habitats in which the taxon occurs: **6**

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): **NT - near threatened**

Legal protection: **vulnerable taxon**

