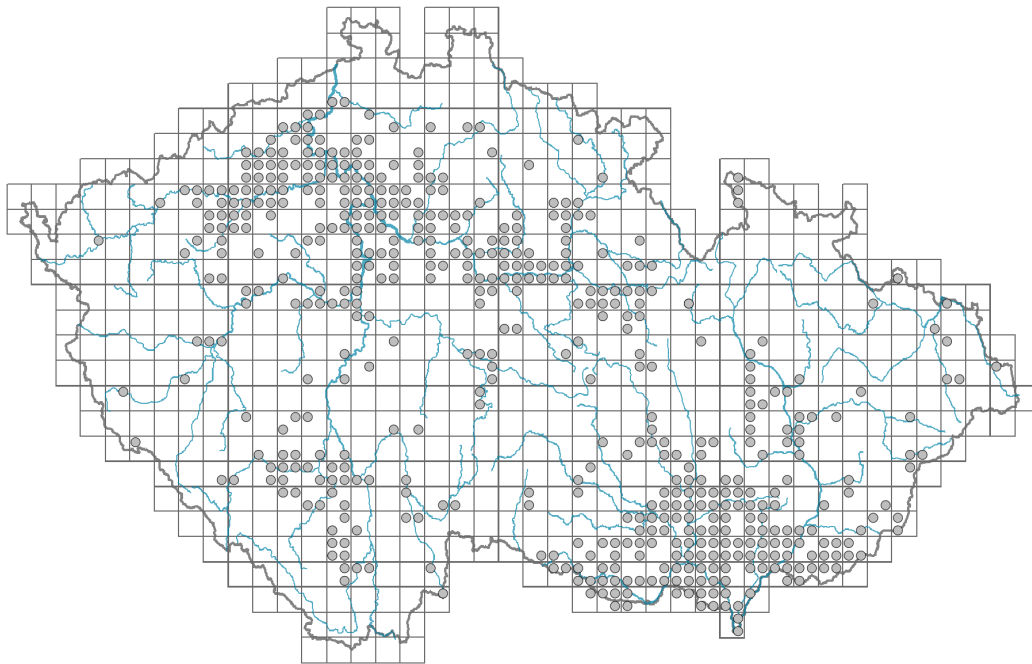


# *Asparagus officinalis*

## Distribution



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### 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]: **0.4-1.5**

Growth form: **clonal herb**

Life form: **geophyte**

Life strategy: **CS - competitor/stress-tolerator**

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

Life strategy (Pierce method, C-score): **0.5 %**

Life strategy (Pierce method, S-score): **89.9 %**

Life strategy (Pierce method, R-score): **9.6 %**

## Leaf

Leaf presence and metamorphosis: **leaves reduced to scales**

Leaf shape: **reduced**

Stipules: **absent**

Leaf life span: **summer green**

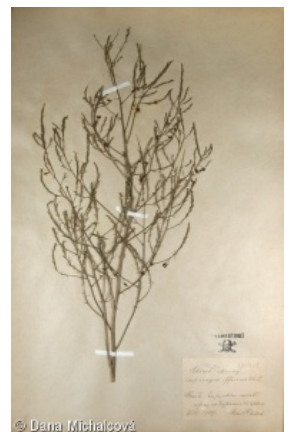
Leaf anatomy: **scleromorphic, mesomorphic**

## Flower

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

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

Flower colour: **white, yellow-green**



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Flower symmetry: **actinomorphic**  
 Perianth type: **homochlamydeous**  
 Perianth fusion: **fused**  
 Shape of the sympetalous corolla or syntepalous perianth: **campanulate**  
 Inflorescence type: **flores solitarii**  
 Dicliny: **dioecious, gynodioecious, androdioecious**  
 Generative reproduction type: **allogamy**  
 Pollination syndrome: **wind-pollination, insect-pollination, selfing**

### Fruit, seed and dispersal

Fruit type: **fleshy fruit - berry**  
 Fruit colour: **red**  
 Reproduction type: **by seed/spores and vegetatively**  
 Dispersal unit (diaspore): **seed, fruit, infrutescence or its part**  
 Dispersal strategy: **Cornus (mainly autochory and endozoochory)**  
 Myrmecochory: **non-myrmecochorous (b)**

### Belowground organs and clonality

Shoot metamorphosis: **rhizome, assimilating shoot**  
 Storage organ: **rhizome**  
 Type of clonal growth organ: **hypogeogenous rhizome**  
 Freely dispersible organs of clonal growth: **absent**  
 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]: **4**  
 Number of clonal offspring: **2.7**  
 Lateral spreading distance by clonal growth [m]: **0.13**  
 Clonal index: **4**

### Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **8**  
 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): **23**  
 Depth of the belowground bud bank (root buds excluded) [cm]: **4**  
 Number of buds per shoot at the soil surface (root buds included): **8**  
 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): **23**  
 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): **40 (20)**

Ploidy level (x): **4 (2)**

2C genome size [Mbp]: **5843.55**

1Cx monoploid genome size [Mbp]: **1460.89**

Genomic GC content: **41.6 %**

## Taxon origin

Origin in the Czech Republic: **archaeophyte/neophyte**

Invasion status: **naturalized**

Geographic origin: **Asia**

Period of introduction: **Late Middle Ages and Early Modern Period (merged category, 1200-1800)**

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

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

Moisture indicator value: **3 - missing on damp soil**

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

Nutrient indicator value: **4 - transition between values 3 and 5**

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

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.13**

Herb layer disturbance frequency indicator value: **-0.74**

Whole-community disturbance severity indicator value: **0.29**

Herb layer disturbance severity indicator value: **0.29**

Whole-community structure based disturbance indicator value: **0.46**

Herb layer structure-based disturbance indicator value: **0.52**

## Habitat and sociology

Occurrence in habitats

6 Meadows and mesic pastures

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

8 Dry grasslands

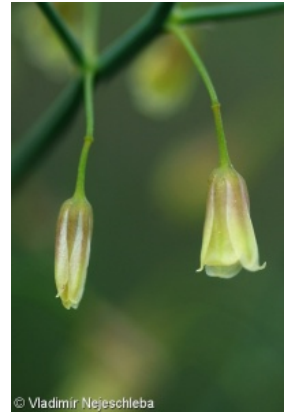
8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**

8C Narrow-leaved sub-continental steppes: **1 - rare occurrence**

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

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

11 Heathlands and scrub



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

11N Low xeric scrub: **2 - optimum**

## 12 Forests

12H Peri-Alpidic basiphilous thermophilous oak forests: **1 - rare occurrence**

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

12J Acidophilous thermophilous oak forests: **1 - rare occurrence**

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

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

## 13 Anthropogenic vegetation

13D Perennial thermophilous ruderal vegetation: **2 - optimum**

### 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: [KBA Prunion fruticosae](#), [LCB Aceri tatarici-Quercion](#)

Diagnostic taxon of associations: [KBA02 Prunetum tenellae](#), [LCA02 Lithospermo purpurocaerulei-Quercetum pubescentis](#)

### Constant taxon

Constant taxon of associations: [KBA02 Prunetum tenellae](#)

### Ecological specialization indices

Ecological specialization index for all vegetation types: **4.1**

Ecological specialization index for non-forest vegetation: **4.6**

Ecological specialization index for forest vegetation: **4.3**

### Colonization ability

Index of colonization success (ICS): **3**

Index of colonization potential (ICP): **6**

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

## Distribution and frequency

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

Floristic region: **Europe, Western Asia**

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: **249**

taxon.data.freq\_in\_quad: **518**

### 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%: **2.1 %**

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: **1.9 %**

Maximum percentage cover in vegetation plots: **8 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **13**

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

Number of broad habitats in which the taxon occurs: **5**

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

### **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**