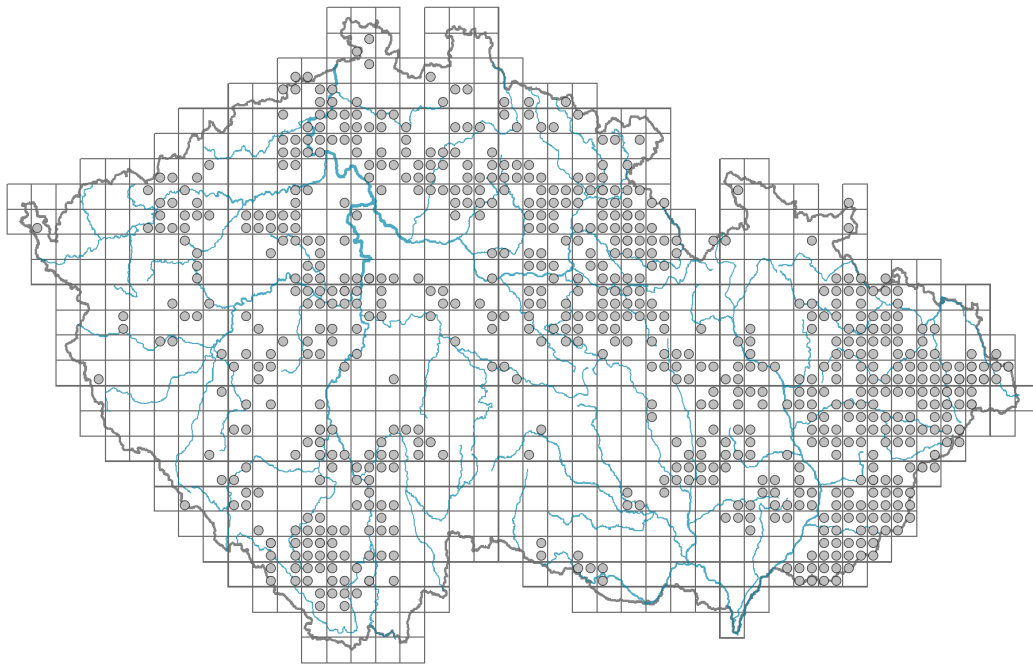


# *Astrantia major*

## 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]: **0.3-0.8**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

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

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

Life strategy (Pierce method, C-score): **68 %**

Life strategy (Pierce method, S-score): **2.9 %**

Life strategy (Pierce method, R-score): **29.1 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **simple - palmately divided**

Stipules: **absent**

Petiole: **both present and absent**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic, hygromorphic**

## Flower

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



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

Flower colour: **green-white**

Flower symmetry: **actinomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **free**

Calyx fusion: **aposepalous**

Inflorescence type: **umbella composita**

Dicliny: **andromonoecious, androdioecious**

Generative reproduction type: **facultative allogamy**

Pollination syndrome: **insect-pollination, geitonogamy**



## Fruit, seed and dispersal

Fruit type: **dry fruit - cremocarp**

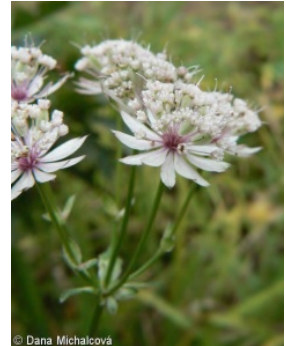
Fruit colour: **brown**

Reproduction type: **by seed/spores and vegetatively**

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

Dispersal strategy: **Bidens (mainly autochory and epizoochory)**

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): **dicyclic or polycyclic shoots prevailing**

Branching type of stem-derived organs of clonal growth: **sympodial**

Primary root: **absent**

Persistence of the clonal growth organ [year]:

Number of clonal offspring: **2.7**

Lateral spreading distance by clonal growth [m]: **0.05**

Clonal index: **3**

### 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):

Number of buds per shoot at a depth greater than 10 cm (root buds excluded):

Size of the belowground bud bank (root buds excluded): **18**

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

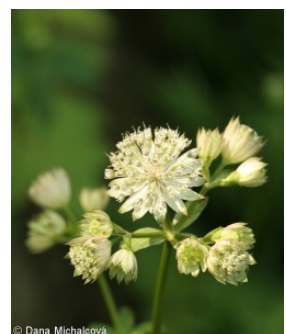
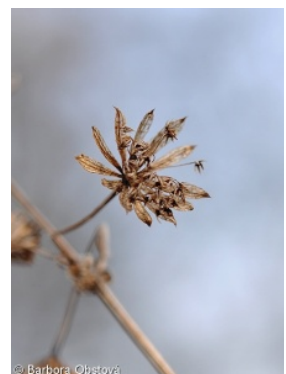
Number of buds per shoot at the soil surface (root buds included): **3**

Number of buds per shoot at a depth of 0–10 cm (root buds included):

Number of buds per shoot at a depth greater than 10 cm (root buds included):

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**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **5 - semi-shade plant, only exceptionally occurring in full light, but usually at more than 10% of the diffuse radiation incident in an open area**

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

Moisture indicator value: **6 - transition between values 5 and 7**

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: **-1.81**

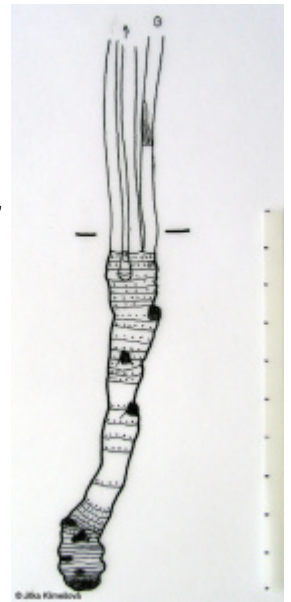
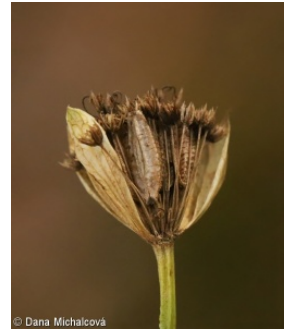
Herb layer disturbance frequency indicator value: **-0.67**

Whole-community disturbance severity indicator value: **0.27**

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

Whole-community structure based disturbance indicator value: **0.17**

Herb layer structure-based disturbance indicator value: **0.29**



## Habitat and sociology

Occurrence in habitats

5 Vegetation of springs and mires

5D Calcareous fens: **1 - rare occurrence**

6 Meadows and mesic pastures

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

6B Montane mesic meadows: **1 - rare occurrence**

8 Dry grasslands

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

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

12 Forests

12A Alder carrs: **1 - rare occurrence**

12B Alluvial forests: **2 - optimum**

12C Oak-hornbeam forests: **1 - rare occurrence**

12D Ravine forests: **1 - rare occurrence**

12E Herb-rich beech forests: **1 - rare occurrence**

12F Limestone beech forests: **2 - optimum**

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

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

12V Spruce plantations: **1 - rare occurrence**

13 Anthropogenic vegetation

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **2 - optimum**

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.1 - taxon occurring both in the forest and open vegetation**

Diagnostic taxon

Diagnostic taxon of associations: [THF02 \*Brachypodio pinnati-Molinietum arundinaceae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.6**

Ecological specialization index for non-forest vegetation: **5.1**

Ecological specialization index for forest vegetation: **5.8**

Colonization ability

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

Index of colonization potential (ICP): **1**

## Distribution and frequency

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

Floristic region: **Europe**

Continentality degree: **5**

Distribution range extension along the continentality gradient: **3**

Elevational belt in the Czech Republic: **colline belt, submontane belt, montane belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 344

taxon.data.freq\_in\_quad: 705

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.4 %**

Occurrence frequency in vegetation plots with a cover above 5%: **10.3 %**

Occurrence frequency in vegetation plots with a cover above 25%: **1.7 %**

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

Mean percentage cover in vegetation plots: **3.4 %**

Maximum percentage cover in vegetation plots: **38 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **15**

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

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**