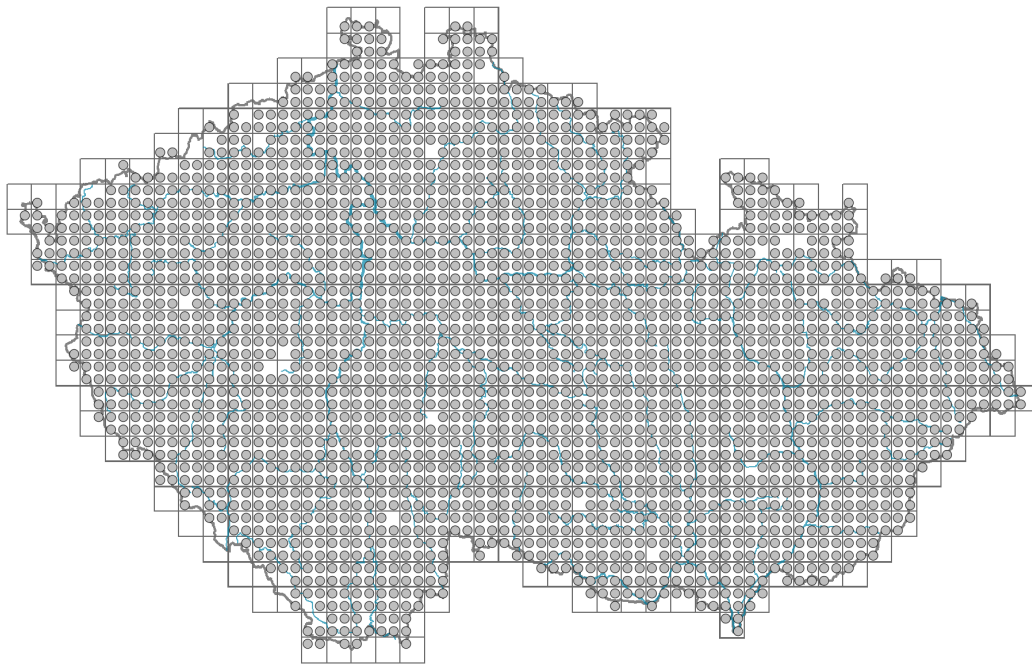


# *Geum urbanum*

## 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]: **0.2-0.9**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

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

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

Life strategy (Pierce method, C-score): **31.7 %**

Life strategy (Pierce method, S-score): **32.8 %**

Life strategy (Pierce method, R-score): **35.5 %**

## Leaf

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

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

Leaf shape: **compound - ternate, compound - interruptedly pinnate**

Stipules: **present**

Petiole: **mainly present**

Leaf life span: **evergreen**

Leaf anatomy: **mesomorphic, hygromorphic**

## Flower

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



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© Pavel Veselý

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

Flower colour: **yellow**

Flower symmetry: **actinomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **free**

Calyx fusion: **aposepalous**

Inflorescence type: **anthella**

Dicliny: **synoecious, andromonoecious, androdioecious**

Generative reproduction type: **facultative autogamy**

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

Pollinator spectrum: **bumblebees, nitidulids (solitary bees, other Hymenoptera, hoverflies, flies s. l., other Diptera, beetles, other pollinators, unknown)**

### Fruit, seed and dispersal

Fruit type: **dry fruit - head of achenes**

Fruit colour: **brown**

Reproduction type: **mostly by seed/spores, rarely 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 (cyclicality): **monocyclic shoots prevailing**

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

Primary root: **absent**

Persistence of the clonal growth organ [year]: **3.6**

Number of clonal offspring: **0.6**

Lateral spreading distance by clonal growth [m]: **0.04**

Clonal index: **2**

### 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): **14**

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): **19**

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): **14**

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): **19**

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): **42**

Ploidy level (x): **6**

2C genome size [Mbp]: **2644.31**

1Cx monoploid genome size [Mbp]: **440.72**

Genomic GC content: **41.5 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

### Ellenberg-type indicator values

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

Temperature indicator value: **5 - moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas**

Moisture indicator value: **5 - indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out**

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

Nutrient indicator value: **7 - occurring at nutrient-rich sites more often than at average sites and only exceptionally at poor sites**

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

### Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.68**

Herb layer disturbance frequency indicator value: **-0.81**

Whole-community disturbance severity indicator value: **0.37**

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

Whole-community structure based disturbance indicator value: **0.22**

Herb layer structure-based disturbance indicator value: **0.26**

## Habitat and sociology

### Occurrence in habitats

1 Vegetation of cliffs, screes and walls

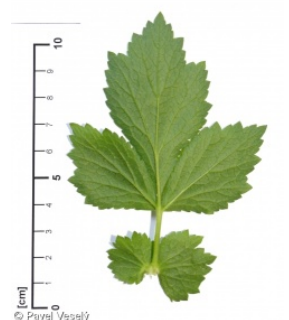
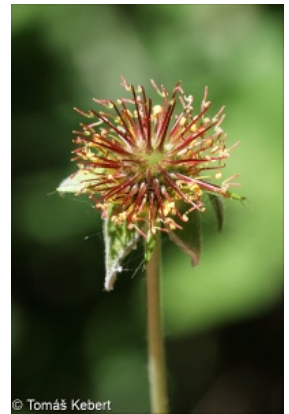
1A Calcareous cliffs: **1 - rare occurrence**

1B Siliceous cliffs and block fields: **1 - rare occurrence**

1C Walls: **1 - rare occurrence**

1D Mobile calcareous screes: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation



- 4D Riverine reed vegetation: **1 - rare occurrence**
- 4K Petasites fringes of montane brooks: **2 - optimum**
- 4L Nitrophilous herbaceous fringes of lowland rivers: **1 - rare occurrence**
- 5 Vegetation of springs and mires
- 5B Lowland to montane soft-water springs: **1 - rare occurrence**
- 6 Meadows and mesic pastures
- 6A Mesic Arrhenatherum meadows: **1 - rare occurrence**
- 6C Pastures and park grasslands: **1 - rare occurrence**
- 6D Alluvial meadows of lowland rivers: **1 - rare occurrence**
- 6G Vegetation of wet disturbed soils: **1 - rare occurrence**
- 8 Dry grasslands
- 8B Submediterranean dry grasslands on rock outcrops: **1 - rare occurrence**
- 8D Broad-leaved dry grasslands: **1 - rare occurrence**
- 8F Thermophilous forest fringe vegetation: **1 - rare occurrence**
- 11 Heathlands and scrub
- 11I Willow carrs: **1 - rare occurrence**
- 11J Willow galleries of loamy and sandy river banks: **2 - optimum**
- 11L Tall mesic and xeric shrub: **2 - optimum**
- 11N Low xeric scrub: **1 - rare occurrence**
- 11R Scrub and pioneer woodland of forests clearings: **2 - optimum**
- 12 Forests
- 12A Alder carrs: **1 - rare occurrence**
- 12B Alluvial forests: **2 - optimum**
- 12C Oak-hornbeam forests: **2 - optimum**
- 12D Ravine forests: **2 - optimum**
- 12E Herb-rich beech forests: **1 - rare occurrence**
- 12F Limestone beech forests: **1 - rare occurrence**
- 12G Acidophilous beech forests: **1 - rare occurrence**
- 12H Peri-Alpidic basiphilous thermophilous oak forests: **2 - optimum**
- 12I Sub-continental thermophilous oak forests: **2 - optimum**
- 12J Acidophilous thermophilous oak forests: **1 - rare occurrence**
- 12K Acidophilous oak forests: **1 - rare occurrence**
- 12T Robinia pseudacacia plantations: **2 - optimum**
- 12U Plantations of broad-leaved non-native trees: **2 - optimum**
- 12V Spruce plantations: **1 - rare occurrence**
- 12W Pine and larch plantations: **1 - rare occurrence**
- 13 Anthropogenic vegetation
- 13A Annual vegetation of ruderal habitats: **1 - rare occurrence**
- 13C Annual vegetation of trampled habitats: **1 - rare occurrence**
- 13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**
- 13E Perennial nitrophilous herbaceous vegetation of mesic sites: **2 - optimum**
- 13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 - rare occurrence**
- 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 classes: [KB \*Rhamno-Prunetea\*](#)

Diagnostic taxon of alliances: [KBE \*Chelidonio majoris-Robinion pseudoacaciae\*](#), [LBA \*Alnion incanae\*](#), [XDD \*Geo urbani-Alliarion petiolatae\*](#)

Diagnostic taxon of associations: [KBD03 \*Sambuco nigrae-Aceretum negundo\*](#), [KBE01 \*Chelidonio majoris-Robinetum pseudoacaciae\*](#), [LBA04 \*Stellario nemorum-Alnetum glutinosae\*](#), [LBA05 \*Pruno padi-Fraxinetum excelsioris\*](#), [LBA07 \*Fraxino pannonicae-Ulmetum glabrae\*](#), [XDD01 \*Alliario petiolatae-Chaerophylletum temuli\*](#), [XDD02 \*Torilidetum japonicae\*](#)

## Constant taxon

Constant taxon of alliances: [KBD \*Aegopodio podagrariae-Sambucion nigrae\*](#), [KBE \*Chelidonio majoris-Robinion pseudoacaciae\*](#), [LBA \*Alnion incanae\*](#), [XDD \*Geo urbani-Alliarion petiolatae\*](#)

Constant taxon of associations: [KAB02 \*Salicetum purpureae\*](#), [KAC02 \*Salicetum fragilis\*](#), [KBB05 \*Rhamno catharticae-Cornetum sanguineae\*](#), [KBD01 \*Sambucetum nigrae\*](#), [KBD03 \*Sambuco nigrae-Aceretum negundo\*](#), [KBE01 \*Chelidonio majoris-Robinetum pseudoacaciae\*](#), [LBA04 \*Stellario nemorum-Alnetum glutinosae\*](#), [LBA05 \*Pruno padi-Fraxinetum excelsioris\*](#), [LBA06 \*Ficario vernaе-Ulmetum campestris\*](#), [LBA07 \*Fraxino pannonicae-Ulmetum glabrae\*](#), [LBB02 \*Stellario holosteae-Carpinetum betuli\*](#), [LBB04 \*Primulo veris-Carpinetum betuli\*](#), [LBF01 \*Aceri-Tilietum\*](#), [LCB01 \*Quercetum pubescenti-roboris\*](#), [XCE01 \*Urtico urentis-Chenopodietum boni-henrici\*](#), [XDD01 \*Alliario petiolatae-Chaerophylletum temuli\*](#), [XDD02 \*Torilidetum japonicae\*](#), [XDD03 \*Anthriscetum trichospermae\*](#), [XDE05 \*Chaerophylletum bulbosi\*](#)

## Dominant taxon

Dominant taxon of associations: [XDD02 \*Torilidetum japonicae\*](#)

## Ecological specialization indices

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

Ecological specialization index for non-forest vegetation: **3.7**

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

## Colonization ability

Index of colonization success (ICS): **8**

Index of colonization potential (ICP): **7**

Optimum successional age [years]: **40**

## Distribution and frequency

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

Floristic region: **Europe, Western Asia**

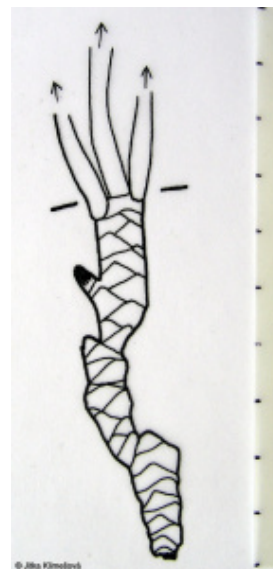
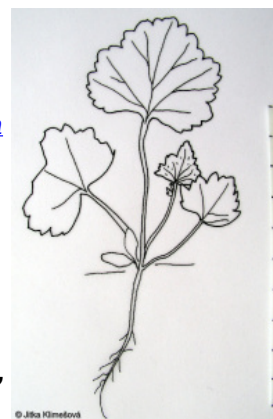
Distribution range extension along the continentality gradient: **6**

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

Expansive taxon in the region: **Bohemian Thermophyticum, Bohemian Moravian Mesophyticum, Bohemian Moravian Oreophyticum, Pannonian Thermophyticum, Carpathian Mesophyticum, Carpathian Oreophyticum**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **657**

taxon.data.freq\_in\_quad: **2427**



## Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **5.5 %**

Occurrence frequency in vegetation plots with a cover above 5%: **5.9 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.7 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.1 %**

Mean percentage cover in vegetation plots: **2.9 %**

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: **40**

Number of narrow habitats in which the taxon has its optimum: **12**

Number of broad habitats in which the taxon occurs: **8**

Number of broad habitats in which the taxon has its optimum: **4**

## 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**