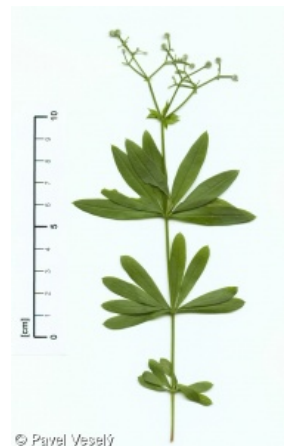
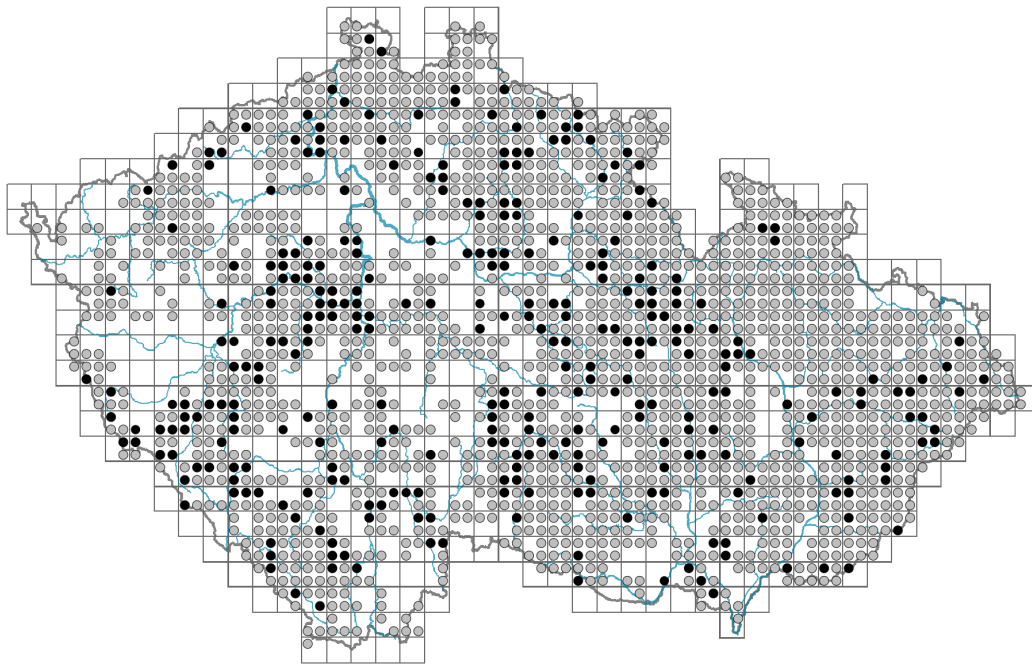


# *Galium odoratum*

## 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]: **0.1-0.4**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

Life strategy: **S - stress-tolerator**

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

Life strategy (Pierce method, C-score): **11.3 %**

Life strategy (Pierce method, S-score): **28.7 %**

Life strategy (Pierce method, R-score): **59.9 %**

## Leaf

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

Leaf arrangement (phyllotaxis): **verticillate**

Leaf shape: **simple - entire**

Stipules: **present**

Petiole: **absent**

Leaf life span: **evergreen**

Leaf anatomy: **scleromorphic, mesomorphic**

## Flower

Flowering period [month]: **May**



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Flowering phase: **5 Sorbus aucuparia-Galium odoratum (end of mid-spring)**

Flower colour: **white**

Flower symmetry: **actinomorphic**

Perianth type: **calyx absent, corolla present**

Perianth fusion: **fused**

Shape of the sympetalous corolla or syntepalous perianth: **funnel-shaped**

Inflorescence type: **dichasium**

Dicliny: **synoecious**

Generative reproduction type: **mixed mating**

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

### Fruit, seed and dispersal

Fruit type: **dry fruit - pair of nutlets**

Fruit colour: **brown, black**

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: **stolon**

Storage organ: **stolon**

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]: **2**

Number of clonal offspring: **2.7**

Lateral spreading distance by clonal growth [m]: **0.2**

Clonal index: **4**

#### 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): **12**

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): **17**

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): **12**

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

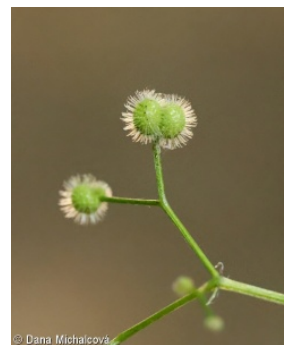
Size of the belowground bud bank (root buds included): **17**

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

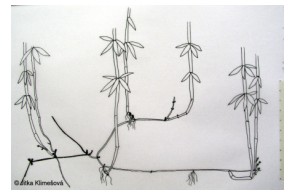
Chromosome number (2n): **44**

Ploidy level (x): **4**

2C genome size [Mbp]: **1290.57**

1Cx monoploid genome size [Mbp]: **322.64**

Genomic GC content: **39.9 %**



## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **3 - shade plant, usually occurring where the incident radiation is less than 5% of that in an open area, but also at sunnier sites**

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

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: **6 - transition between values 5 and 7**

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: **-1.97**

Herb layer disturbance frequency indicator value: **-0.7**

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

Herb layer disturbance severity indicator value: **0.07**

Whole-community structure based disturbance indicator value: **0.08**

Herb layer structure-based disturbance indicator value: **0.17**

## Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

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

2 Alpine and subalpine grasslands

2B Subalpine tall-forb and tall-grass vegetation: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation

4K Petasites fringes of montane brooks: **1 - rare occurrence**

5 Vegetation of springs and mires

5B Lowland to montane soft-water springs: **1 - rare occurrence**

8 Dry grasslands

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

11 Heathlands and scrub

- 11H Subalpine deciduous scrub: **1 - rare occurrence**  
 11L Tall mesic and xeric shrub: **1 - rare occurrence**  
 11R Scrub and pioneer woodland of forests clearings: **1 - rare occurrence**

## 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: **2 - optimum**  
 12F Limestone beech forests: **2 - optimum**  
 12G Acidophilous beech forests: **2 - optimum**  
 12H Peri-Alpidic basiphilous thermophilous oak forests: **1 - rare occurrence**  
 12I Sub-continental thermophilous oak forests: **2 - optimum**  
 12J Acidophilous thermophilous oak forests: **1 - rare occurrence**  
 12K Acidophilous oak forests: **1 - rare occurrence**  
 12R Acidophilous spruce forests: **1 - rare occurrence**  
 12S Basiphilous spruce forests: **2 - optimum**  
 12T Robinia pseudacacia plantations: **1 - rare occurrence**  
 12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**  
 12V Spruce plantations: **2 - optimum**  
 12W Pine and larch plantations: **1 - rare occurrence**

## 13 Anthropogenic vegetation

- 13E Perennial nitrophilous herbaceous vegetation of mesic sites: **2 - optimum**  
 13F Herbaceous vegetation of forests clearings and Rubus scrub: **2 - optimum**

## Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **1.1 - taxon occurring mainly in the closed forest**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **1.1 - taxon occurring mainly in the closed forest**

## Diagnostic taxon

Diagnostic taxon of classes: [LB \*Carpino-Fagetea\*](#)

Diagnostic taxon of alliances: [LBB \*Carpinion betuli\*](#), [LBC \*Fagion sylvaticae\*](#), [LBF \*Tilio platyphylli-Acerion\*](#)

Diagnostic taxon of associations: [LBB03 \*Carici pilosae-Carpinetum betuli\*](#), [LBC01 \*Galio odorati-Fagetum sylvaticae\*](#), [LBC02 \*Mercuriali perennis-Fagetum sylvaticae\*](#), [LBC03 \*Carici pilosae-Fagetum sylvaticae\*](#), [XDC05 \*Urtico dioicae-Parietarium officinalis\*](#)

## Constant taxon

Constant taxon of classes: [LB \*Carpino-Fagetea\*](#)

Constant taxon of alliances: [LBB \*Carpinion betuli\*](#), [LBC \*Fagion sylvaticae\*](#), [LBD \*Sorbo-Fagion sylvaticae\*](#), [LBF \*Tilio platyphylli-Acerion\*](#)

Constant taxon of associations: [LBB01 \*Galio sylvatici-Carpinetum betuli\*](#), [LBB02 \*Stellario holostea-Carpinetum betuli\*](#), [LBB03 \*Carici pilosae-Carpinetum betuli\*](#), [LBB04 \*Primulo veris-Carpinetum betuli\*](#), [LBC01 \*Galio odorati-Fagetum sylvaticae\*](#), [LBC02 \*Mercuriali perennis-Fagetum sylvaticae\*](#), [LBC03 \*Carici pilosae-Fagetum sylvaticae\*](#), [LBC05 \*Galio rotundifolii-Abietetum albae\*](#), [LBD01 \*Cephalanthero damasonii-Fagetum sylvaticae\*](#), [LBF01 \*Aceri-Tilietum\*](#), [LBF02 \*Mercuriali perennis-Fraxinetum excelsioris\*](#), [LBF03 \*Arunco dioici-Aceretum\*](#)

[pseudoplatani, XDC01 Stachyo sylvaticae-Impatientetum noli-tangere, XDC05 Urtico dioicae-Parietarium officinalis](#)

Dominant taxon

Dominant taxon of associations: [LBA07 Fraxino pannonicae-Ulmetum glabrae](#), [LBB01 Galio sylvatici-Carpinetum betuli](#), [LBB02 Stellario holosteaе-Carpinetum betuli](#), [LBB03 Carici pilosae-Carpinetum betuli](#), [LBC01 Galio odorati-Fagetum sylvaticae](#), [LBC02 Mercuriali perennis-Fagetum sylvaticae](#), [LBF01 Aceri-Tilietum](#), [LBF02 Mercuriali perennis-Fraxinetum excelsioris](#), [XDC01 Stachyo sylvaticae-Impatientetum noli-tangere](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.3**

Ecological specialization index for non-forest vegetation: **4.4**

Ecological specialization index for forest vegetation: **5.4**

Colonization ability

Index of colonization success (ICS): **6**

Index of colonization potential (ICP): **3**

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

## Distribution and frequency

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

Floristic region: **Europe, Asia**

Distribution range extension along the continentality gradient: **5**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **599**

taxon.data.freq\_in\_quad: **1799**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **5.9 %**

Occurrence frequency in vegetation plots with a cover above 5%: **36.1 %**

Occurrence frequency in vegetation plots with a cover above 25%: **10.4 %**

Occurrence frequency in vegetation plots with a cover above 50%: **1.5 %**

Mean percentage cover in vegetation plots: **9.3 %**

Maximum percentage cover in vegetation plots: **99 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **27**

Number of narrow habitats in which the taxon has its optimum: **11**

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

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**