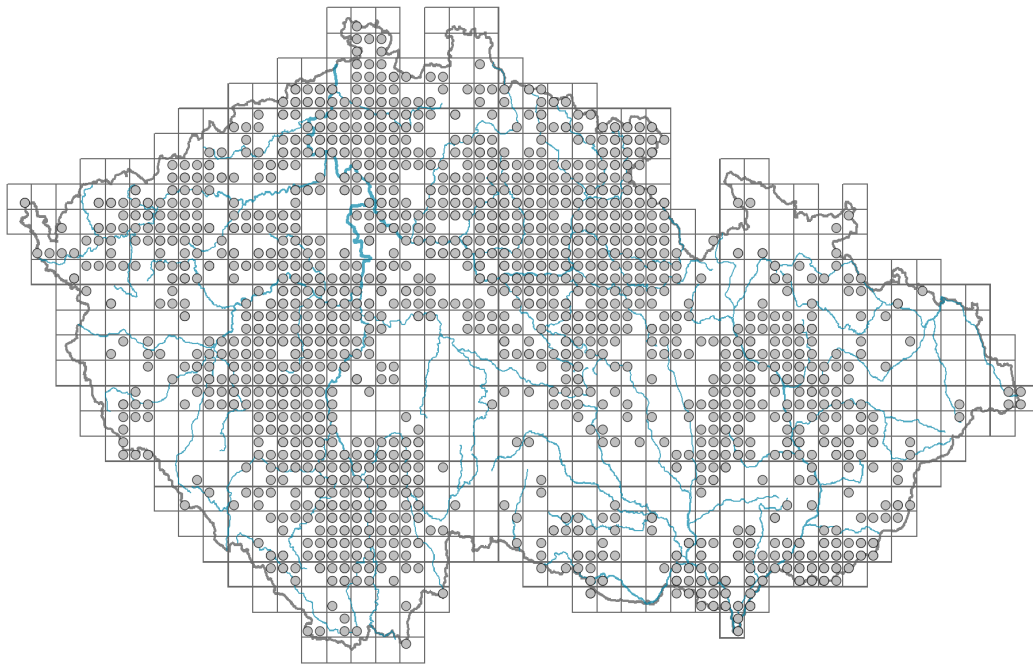


# Galium boreale

## 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]: **0.2-0.7**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

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

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

Life strategy (Pierce method, C-score): **3.7 %**

Life strategy (Pierce method, S-score): **40.4 %**

Life strategy (Pierce method, R-score): **55.9 %**



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## Leaf

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

Leaf arrangement (phyllotaxis): **verticillate**

Leaf shape: **simple - entire**

Stipules: **present**

Petiole: **absent**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic, mesomorphic**



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## Flower

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

Flowering phase: **7 Ligustrum vulgare-Stachys sylvatica (end of early summer)**  
 Flower colour: **white**  
 Flower symmetry: **actinomorphic**  
 Perianth type: **calyx absent, corolla present**  
 Perianth fusion: **fused**  
 Shape of the sympetalous corolla or syntepalous perianth: **rotate**  
 Inflorescence type: **panicula e dichasiis composita**  
 Dicliny: **synoecious**  
 Generative reproduction type: **mixed mating**  
 Pollination syndrome: **insect-pollination, selfing**  
 Pollinator spectrum: **flies s. l., unknown (other Hymenoptera, hoverflies, other Diptera, other pollinators)**



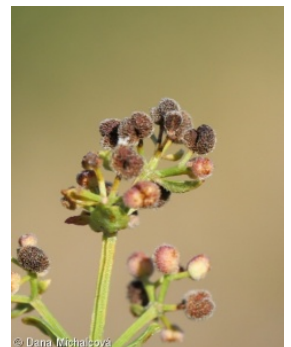
## Fruit, seed and dispersal

Fruit type: **dry fruit - pair of nutlets**  
 Reproduction type: **by seed/spores and vegetatively**  
 Dispersal unit (diaspore): **fruit, infructescence or its part**  
 Dispersal strategy: **Allium (mainly autochory)**  
 Myrmecochory: **non-myrmecochorous (b)**



## Belowground organs and clonality

Shoot metamorphosis: **stolon, pleiocorm**  
 Storage organ: **stolon, pleiocorm**  
 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: **4.6**  
 Lateral spreading distance by clonal growth [m]: **0.15**  
 Clonal index: **5**



## 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): **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): **20**  
 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): **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): **20**  
 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 (66)**

Ploidy level (x): **4 (6)**

2C genome size [Mbp]: **1894.82**

1Cx monoploid genome size [Mbp]: **473.71**

Genomic GC content: **40.1 %**

## Taxon origin

Origin in the Czech Republic: **native**

## Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **6 - transition between values 5 and 7; rarely at less than 20% of diffuse radiation incident in an open area**

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

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: **4 - transition between values 3 and 5**

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

## Habitat and sociology

Occurrence in habitats

1 Vegetation of cliffs, screes and walls

1B Siliceous cliffs and block fields: **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

4A Reed-beds of eutrophic still waters: **1 - rare occurrence**

4D Riverine reed vegetation: **1 - rare occurrence**

4G Tall-sedge beds: **1 - rare occurrence**

5 Vegetation of springs and mires

5C Alpine and subalpine soft-water springs: **1 - rare occurrence**

5D Calcareous fens: **2 - optimum**

5E Acidic moss-rich fens and peatland meadows: **1 - rare occurrence**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **2 - optimum**

6C Pastures and park grasslands: **1 - rare occurrence**

6D Alluvial meadows of lowland rivers: **2 - optimum**

6E Wet Cirsium meadows: **1 - rare occurrence**

6F Intermittently wet Molinia meadows: **2 - optimum**



## 7 Acidophilous grasslands

7B Submontane Nardus grasslands: **1 - rare occurrence**

## 8 Dry grasslands

8D Broad-leaved dry grasslands: **2 - optimum**

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

8F Thermophilous forest fringe vegetation: **2 - optimum**

## 9 Sand grasslands and rock-outcrop vegetation

9E Acidophilous vegetation of spring therophytes and succulents: **1 - rare occurrence**

9F Basiphilous vegetation of spring therophytes and succulents: **1 - rare occurrence**

## 11 Heathlands and scrub

11I Willow carrs: **1 - rare occurrence**

11J Willow galleries of loamy and sandy river banks: **1 - rare occurrence**

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

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

## 12 Forests

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

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

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

12I Sub-continental thermophilous oak forests: **2 - optimum**

12K Acidophilous oak forests: **1 - rare occurrence**

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

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

## 13 Anthropogenic vegetation

13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 - rare occurrence**

### Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **2.2 - taxon occurring partly in the forest, but mainly in open vegetation**

### Colonization ability

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

Index of colonization potential (ICP): **2**

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

## Distribution and frequency

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

Floristic region: **circumpolar**

Continental degree: **6**

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

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: **480**

taxon.data.freq\_in\_quad: **1229**

Commonness in vegetation plots from the Czech Republic

Maximum percentage cover in vegetation plots: **63 %**



Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **31**

Number of narrow habitats in which the taxon has its optimum: **7**

Number of broad habitats in which the taxon occurs: **11**

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

### Threats and protection

Red List 2017 (national categories): **C4a - near threatened taxon**

Red List 2017 (IUCN categories): **LC - least concern**

Legal protection: **not protected by law**



