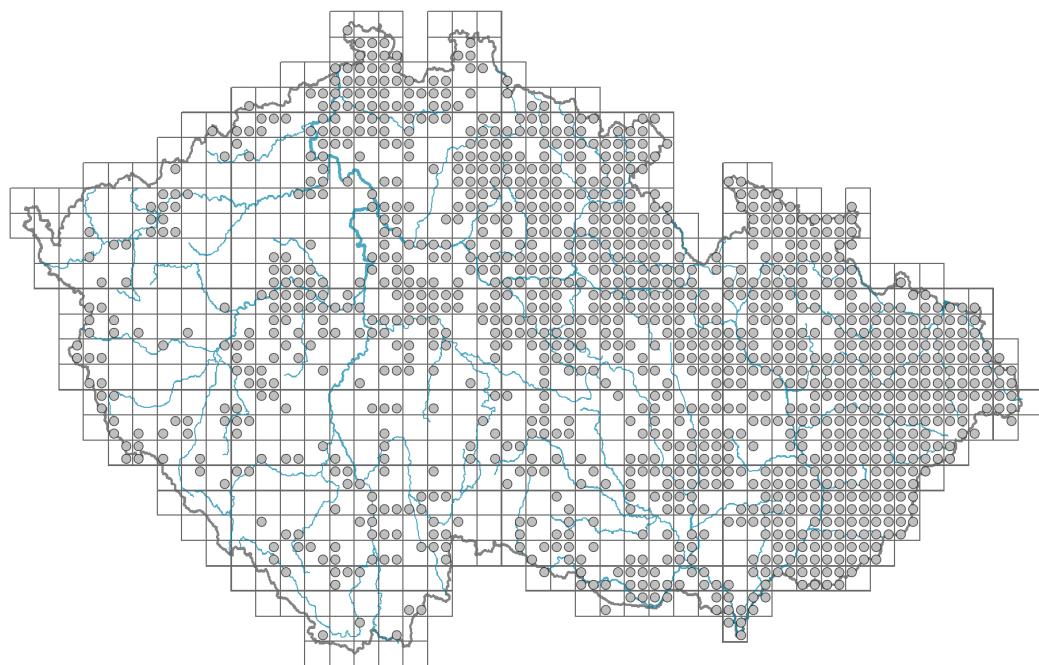


# *Circaeа lutetiana*

## 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]: **0.2-0.8**

Growth form: **clonal herb**

Life form: **geophyte**

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

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

Life strategy (Pierce method, C-score): **39 %**

Life strategy (Pierce method, S-score): **12.1 %**

Life strategy (Pierce method, R-score): **48.9 %**



## Leaf

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

Leaf arrangement (phyllotaxis): **opposite**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **hygromorphic**



## Flower

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

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**

Flower colour: **white**

Flower symmetry: **actinomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **free**

Calyx fusion: **hypanthium**

Inflorescence type: **racemus**

Dicliny: **synoecious**

Generative reproduction type: **mixed mating**

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



## Fruit, seed and dispersal

Fruit type: **dry fruit - achene/cypsela/samara**

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: **stolon, stolon with tuberous tip**

Storage organ: **stolon, stolon with tuberous tip**

Type of clonal growth organ: **belowground stem tuber**

Freely dispersible organs of clonal growth: **absent**

Shoot life span (cyclicity): **monocyclic shoots prevailing**

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

Primary root: **absent**

Persistence of the clonal growth organ [year]: **1**

Number of clonal offspring: **6**

Lateral spreading distance by clonal growth [m]: **0.13**

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): **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 exluded) [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): **22**

Ploidy level (x): **2**

2C genome size [Mbp]: **1031.01**

1Cx monoploid genome size [Mbp]: **515.51**

Genomic GC content: **40.8 %**

## Taxon origin

Origin in the Czech Republic: **native**



## Ecological indicator values

Ellenberg-type indicator values

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

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

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: **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: **-1.91**

Herb layer disturbance frequency indicator value: **-0.69**

Whole-community disturbance severity indicator value: **0.28**

Herb layer disturbance severity indicator value: **0.13**

Whole-community structure based disturbance indicator value: **0.16**

Herb layer structure-based disturbance indicator value: **0.25**



## Habitat and sociology

Occurrence in habitats

4 Wetland and riverine herbaceous vegetation

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

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

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**

11 Heathlands and scrub

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

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

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

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

12U Plantations of broad-leaved non-native trees: **1 - rare occurrence**

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

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 alliances: [\*\*LBA Alnion incanae\*\*](#)

Diagnostic taxon of associations: [\*\*LBA07 Fraxino pannonicae-Ulmetum glabrae\*\*](#),  
[\*\*XDC01 Stachyo sylvaticae-Impatientetum noli-tangere\*\*](#), [\*\*XDC04 Carici pendulae-Eupatorietum cannabini\*\*](#)

### Constant taxon

Constant taxon of associations: [\*\*LBA07 Fraxino pannonicae-Ulmetum glabrae\*\*](#),  
[\*\*XDC01 Stachyo sylvaticae-Impatientetum noli-tangere\*\*](#), [\*\*XDC04 Carici pendulae-Eupatorietum cannabini\*\*](#)

### Ecological specialization indices

Ecological specialization index for all vegetation types: **5.4**

Ecological specialization index for non-forest vegetation: **4.7**

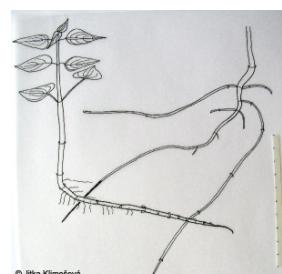
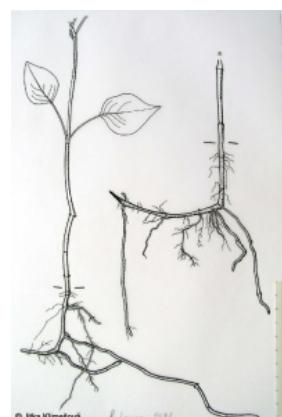
Ecological specialization index for forest vegetation: **5.5**

### Colonization ability

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

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

Optimum successional age [years]: **35**



## Distribution and frequency

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

Floristic region: **Europe, Asia, Americas**

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

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: 487

taxon.data.freq\_in\_quad: 1224

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.5 %**

Occurrence frequency in vegetation plots with a cover above 5%: **7.7 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.9 %**

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

Mean percentage cover in vegetation plots: **3.2 %**

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: **20**

Number of narrow habitats in which the taxon has its optimum: **6**

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**