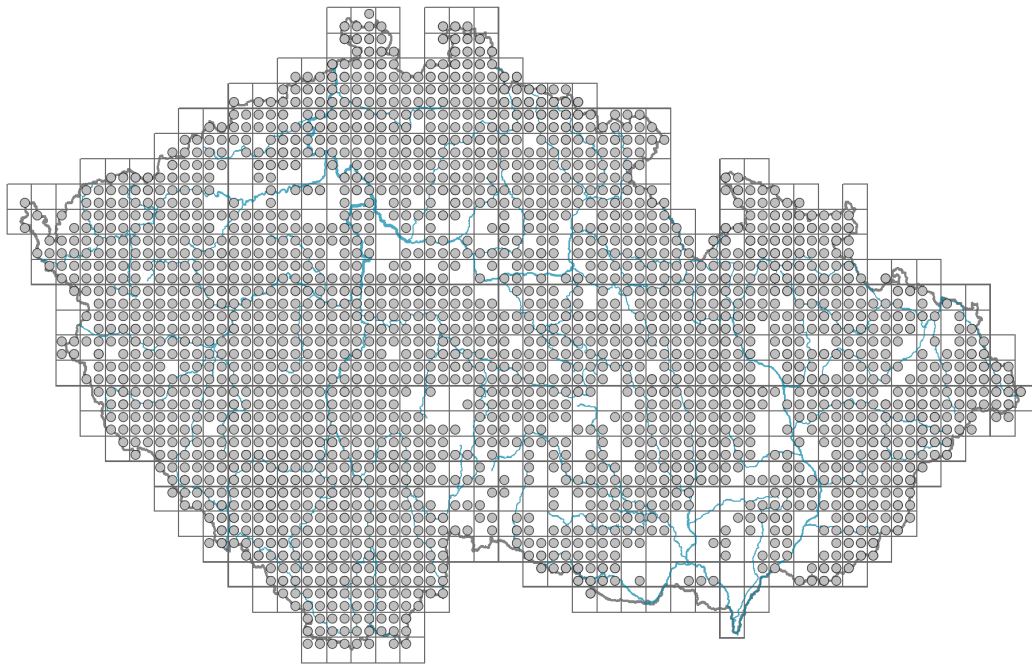


# *Luzula luzuloides*

## Distribution



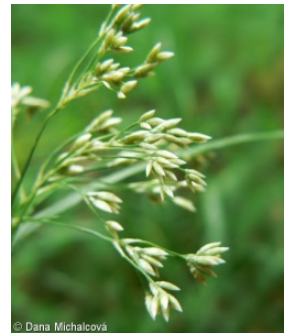
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### Map info

● revised records

○ unrevised records

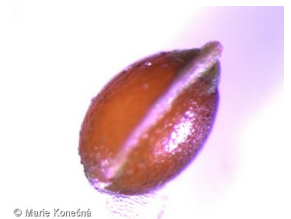
On the map are not visualized records without the coordinates and records marked as incorrect or doubtful.



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## Habitus and growth type

Height [m]: **0.3-0.7**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

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

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **evergreen**

Leaf anatomy: **mesomorphic**

## Flower

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

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

Flower colour: **white, red-brown**

Flower symmetry: **actinomorphic**

Perianth type: **homochlamydeous**

Perianth fusion: **free**  
 Inflorescence type: **anthella**  
 Dicliny: **synoecious**  
 Generative reproduction type: **mixed mating**  
 Pollination syndrome: **wind-pollination, selfing**

### Fruit, seed and dispersal

Fruit type: **dry fruit - capsule**  
 Reproduction type: **by seed/spores and vegetatively**  
 Dispersal unit (diaspore): **seed**  
 Dispersal strategy: **Allium (mainly autochory)**  
 Myrmecochory: **myrmecochorous**

### Belowground organs and clonality

Shoot metamorphosis: **stolon, rhizome**  
 Storage organ: **stolon, rhizome**  
 Type of clonal growth organ: **hypogeogenous rhizome**  
 Freely dispersible organs of clonal growth: **absent**  
 Shoot life span (cyclicality): **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]: **4**  
 Number of clonal offspring: **1**  
 Lateral spreading distance by clonal growth [m]: **0.13**  
 Clonal index: **4**

### Bud bank

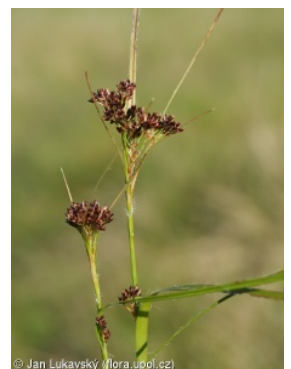
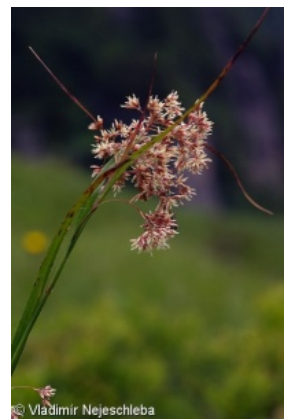
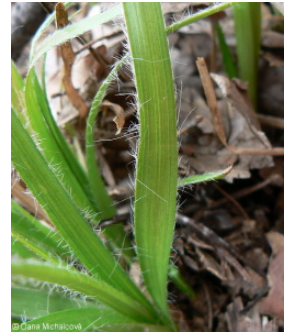
Number of buds per shoot at the soil surface (root buds excluded): **5**  
 Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **15**  
 Number of buds per shoot at a depth greater than 10 cm (root buds excluded): **0**  
 Size of the belowground bud bank (root buds excluded): **20**  
 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): **12**  
 Ploidy level (x): **2**



2C genome size [Mbp]: **1560.45**  
 1Cx monoploid genome size [Mbp]: **780.22**  
 Genomic GC content: **34.7 %**



## 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: **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: **3 - acidity indicator, occurring mainly in acidic conditions, exceptionally in neutral conditions**

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

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

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.9**

Herb layer disturbance frequency indicator value: **-0.71**

Whole-community disturbance severity indicator value: **0.26**

Herb layer disturbance severity indicator value: **0.12**

Whole-community structure based disturbance indicator value: **0.1**

Herb layer structure-based disturbance indicator value: **0.18**

## 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

2A Alpine grasslands on siliceous bedrock: **1 - rare occurrence**

2B Subalpine tall-forb and tall-grass vegetation: **2 - optimum**

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**

6 Meadows and mesic pastures

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

6B Montane mesic meadows: **2 - optimum**

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

6D Alluvial meadows of lowland rivers: **1 - rare occurrence**

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

6F Intermittently wet Molinia meadows: **1 - rare occurrence**

6G Vegetation of wet disturbed soils: **1 - rare occurrence**

## 7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **2 - optimum**

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

## 8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**

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

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

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

## 9 Sand grasslands and rock-outcrop vegetation

9C Festuca grasslands on acidic sands: **1 - rare occurrence**

## 11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **2 - optimum**

11D Subalpine acidophilous Pinus mugo scrub: **2 - optimum**

11H Subalpine deciduous scrub: **2 - optimum**

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**

11R Scrub and pioneer woodland of forests clearings: **2 - optimum**

## 12 Forests

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

12B Alluvial forests: **1 - rare occurrence**

12C Oak-hornbeam forests: **2 - optimum**

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

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: **2 - optimum**

12K Acidophilous oak forests: **2 - optimum**

12L Boreo-continental pine forests: **2 - optimum**

12O Peri-Alpidic pine forests: **1 - rare occurrence**

12P Peatland pine forests: **1 - rare occurrence**

12Q Peatland birch forests: **1 - rare occurrence**

12R Acidophilous spruce forests: **1 - rare occurrence**

12S Basiphilous spruce forests: **1 - rare occurrence**

12U Plantations of broad-leaved non-native trees: **2 - optimum**

12V Spruce plantations: **2 - optimum**

12W Pine and larch plantations: **2 - optimum**

## 13 Anthropogenic vegetation

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: **2.1 - taxon occurring both in the forest and open vegetation**

Diagnostic taxon

Diagnostic taxon of classes: [LC \*Quercetea pubescentis\*](#), [LD \*Quercetea robori-petraeae\*](#)

Diagnostic taxon of alliances: [LBE \*Luzulo-Fagion sylvaticae\*](#), [LCC \*Quercion petraeae\*](#), [LDA \*Quercion roboris\*](#)

Diagnostic taxon of associations: [ADA02 \*Crepido conyzifoliae-Calamagrostietum villosae\*](#), [ADD03 \*Trollio altissimi-Geranium sylvatici\*](#), [LDA01 \*Luzulo luzuloidis-Quercetum petraeae\*](#), [LDA02 \*Viscario vulgaris-Quercetum petraeae\*](#)

Constant taxon

Constant taxon of classes: [LD \*Quercetea robori-petraeae\*](#)

Constant taxon of alliances: [ADA \*Calamagrostion villosae\*](#), [ADB \*Calamagrostion arundinaceae\*](#), [ADC \*Salicion silesiaca\*](#), [LBE \*Luzulo-Fagion sylvaticae\*](#), [LCC \*Quercion petraeae\*](#), [LDA \*Quercion roboris\*](#), [TEB \*Nardo strictae-Agrostion tenuis\*](#)

Constant taxon of associations: [ADA02 \*Crepido conyzifoliae-Calamagrostietum villosae\*](#), [ADA03 \*Violo sudeticae-Deschampsietum cespitosae\*](#), [ADB01 \*Bupleuro longifoliae-Calamagrostietum arundinaceae\*](#), [ADC01 \*Salici silesiaca-Betuletum carpatica\*](#), [ADD03 \*Trollio altissimi-Geranium sylvatici\*](#), [ADD04 \*Laserpitio archangelicae-Dactylidetum glomeratae\*](#), [LBC05 \*Galio rotundifolii-Abietetum albae\*](#), [LBE01 \*Luzulo luzuloidis-Fagetum sylvaticae\*](#), [LBE03 \*Luzulo-Abietetum albae\*](#), [LCC01 \*Sorbo torminalis-Quercetum\*](#), [LCC02 \*Genisto pilosae-Quercetum petraeae\*](#), [LDA01 \*Luzulo luzuloidis-Quercetum petraeae\*](#), [LDA02 \*Viscario vulgaris-Quercetum petraeae\*](#), [LDA03 \*Vaccinio vitis-idaeae-Quercetum roboris\*](#), [TEA02 \*Thesio alpini-Nardetum strictae\*](#), [TEB01 \*Sileno vulgaris-Nardetum strictae\*](#), [TEF03 \*Festuco supinae-Vaccinietum myrtilli\*](#), [XEA03 \*Rubo idaei-Calamagrostietum arundinaceae\*](#)

Dominant taxon

Dominant taxon of associations: [LBE01 \*Luzulo luzuloidis-Fagetum sylvaticae\*](#), [LDA01 \*Luzulo luzuloidis-Quercetum petraeae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.3**

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

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

Colonization ability

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

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

Optimum successional age [years]: **5**

## Distribution and frequency

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

Floristic region: **Europe**

Continental degree: **5**

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

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: 635

taxon.data.freq\_in\_quad: 2121

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **4.7 %**

Occurrence frequency in vegetation plots with a cover above 5%: **18.7 %**

Occurrence frequency in vegetation plots with a cover above 25%: **5.7 %**

Occurrence frequency in vegetation plots with a cover above 50%: **1 %**

Mean percentage cover in vegetation plots: **5.9 %**

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: **48**

Number of narrow habitats in which the taxon has its optimum: **19**

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

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

### **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**