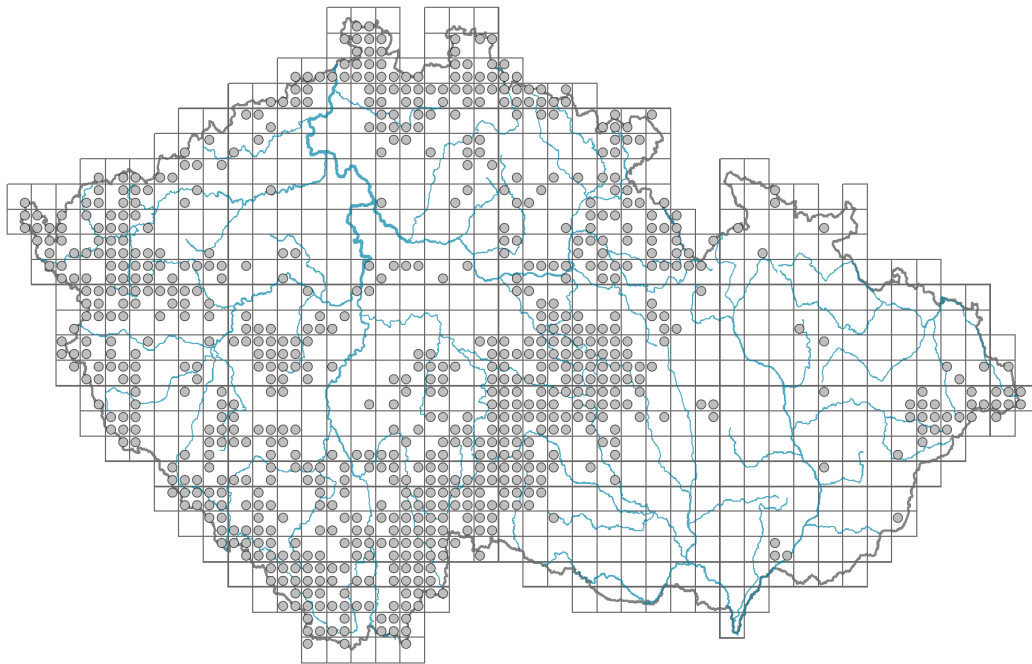


# *Juncus bulbosus*

## Distribution

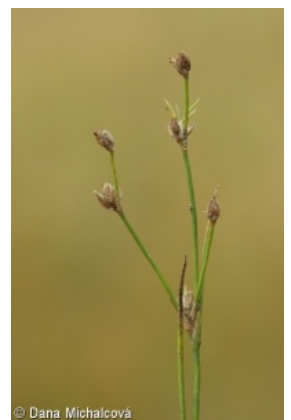


### Map info

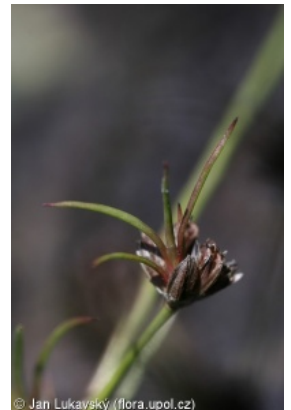
● revised records

○ unrevised records

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



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© Jan Lukavský (flora.upol.cz)



© Dušan Štěrba, Dřítovka

## Habitus and growth type

Height [m]: **0.02-0.2**

Growth form: **clonal herb**

Life form: **hemicryptophyte (hydrophyte)**

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

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

Life strategy (Pierce method, C-score): **0.2 %**

Life strategy (Pierce method, S-score): **50.2 %**

Life strategy (Pierce method, R-score): **49.7 %**

## 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: **helomorphic, hydromorphic**

## Flower

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

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

Flower colour: **green**

Flower symmetry: **actinomorphic**

Perianth type: **homochlamydeous**

Perianth fusion: **free**

Inflorescence type: **anthella**

Dicliny: **synoecious**

Generative reproduction type: **mixed mating**

Pollination syndrome: **wind-pollination**

### **Fruit, seed and dispersal**

Fruit type: **dry fruit - capsule**

Reproduction type: **by seed/spores and vegetatively**

Dispersal unit (diaspore): **seed, pseudovivipary, shoot fragment**

Dispersal strategy: **Sparganium (mainly autochory and hydrochory)**

Myrmecochory: **probably non-myrmecochorous**

### **Belowground organs and clonality**

Shoot metamorphosis: **bulbil**

Storage organ: **bulbil, tuft**

Type of clonal growth organ: **epigeogenous rhizome**

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

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]: **3**

Number of clonal offspring: **6.3**

Lateral spreading distance by clonal growth [m]: **0.14**

Clonal index: **4**

### **Bud bank**

Number of buds per shoot at the soil surface (root buds excluded): **7**

Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **7**

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): **14**

Depth of the belowground bud bank (root buds excluded) [cm]: **3**

Number of buds per shoot at the soil surface (root buds included): **7**

Number of buds per shoot at a depth of 0–10 cm (root buds included): **7**

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): **14**

Depth of the belowground bud bank (root buds included) [cm]: **3**

### **Trophic mode**

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

## Karyology

Chromosome number (2n): **40**

Ploidy level (x): **2**

2C genome size [Mbp]: **1408.46**

1Cx monoploid genome size [Mbp]: **704.23**

Genomic GC content: **36.3 %**

## 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: **10 - aquatic plant that survives long periods without soil flooding**

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

Nutrient indicator value: **3 - occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites**

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

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-0.69**

Herb layer disturbance frequency indicator value: **-0.65**

Whole-community disturbance severity indicator value: **0.13**

Herb layer disturbance severity indicator value: **0.17**

Whole-community structure based disturbance indicator value: **0.61**

Herb layer structure-based disturbance indicator value: **0.6**

## Habitat and sociology

Occurrence in habitats

3 Aquatic vegetation

3A Macrophytic vegetation of eutrophic and mesotrophic still waters: **1 - rare occurrence**

3C Macrophytic vegetation of oligotrophic lakes and pools: **3 - dominant**

4 Wetland and riverine herbaceous vegetation

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

4C Eutrophic vegetation of muddy substrata: **1 - rare occurrence**

4E Reed vegetation of brooks: **1 - rare occurrence**

4H Vegetation of low annual hygrophilous herbs: **2 - optimum**

4I Vegetation of nitrophilous annual hygrophilous herbs: **1 - rare occurrence**

5 Vegetation of springs and mires

5E Acidic moss-rich fens and peatland meadows: **2 - optimum**

5F Transitional mires: **2 - optimum**

5G Raised bogs: **1 - rare occurrence**

5H Wet peat soils and bog hollows: **2 - optimum**

6 Meadows and mesic pastures

6C Pastures and park grasslands: **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**

10 Saline vegetation

10I Inland saline meadows: **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: **0 - taxon that does not spontaneously occur in Czech forests**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **0 - taxon that does not spontaneously occur in Czech forests**

Diagnostic taxon

Diagnostic taxon of classes: [VD \*Littorelletea uniflorae\*](#)

Diagnostic taxon of alliances: [RBB \*Sphagno warnstorffii-Tomentypnion nitentis\*](#),  
[VDB \*Eleocharition acicularis\*](#), [VDC \*Sphagno-Utricularion\*](#)

Diagnostic taxon of associations: [RBA04 \*Campylio stellati-Caricetum lasiocarpae\*](#),  
[RBB02 \*Campylio stellati-Trichophoretum alpini\*](#), [RBC02 \*Drosero anglicae-Rhynchosporium albae\*](#),  
[VBB03 \*Scirpo fluitantis-Potametum polygonifolii\*](#),  
[VDB01 \*Eleocharito-Littorelletum uniflorae\*](#), [VDB02 \*Ranunculo-Juncetum bulbosi\*](#),  
[VDC02 \*Sphagno-Utricularietum ochroleucae\*](#), [VDC03 \*Scorpidio scorpioidis-Utricularietum\*](#)

Constant taxon

Constant taxon of associations: [RBB02 \*Campylio stellati-Trichophoretum alpini\*](#),  
[RBC02 \*Drosero anglicae-Rhynchosporium albae\*](#), [VDB02 \*Ranunculo-Juncetum bulbosi\*](#),  
[VDC03 \*Scorpidio scorpioidis-Utricularietum\*](#)

Dominant taxon

Dominant taxon of associations: [VDB02 \*Ranunculo-Juncetum bulbosi\*](#), [VDC02 \*Sphagno-Utricularietum ochroleucae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4**

Ecological specialization index for non-forest vegetation: **4**

Colonization ability

Index of colonization success (ICS): **5**

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

Optimum successional age [years]: **10**

## Distribution and frequency

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

Floristic region: **Europe, Siberia, Americas**

Continental degree: **4**

Distribution range extension along the continentality gradient: **4**

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

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: 359

taxon.data.freq\_in\_quad: 782

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.6 %**

Occurrence frequency in vegetation plots with a cover above 5%: **38.1 %**

Occurrence frequency in vegetation plots with a cover above 25%: **25.6 %**

Occurrence frequency in vegetation plots with a cover above 50%: **14.9 %**

Mean percentage cover in vegetation plots: **17.8 %**

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: **17**

Number of narrow habitats in which the taxon has its optimum: **5**

Number of broad habitats in which the taxon occurs: **6**

Number of broad habitats in which the taxon has its optimum: **3**

### **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**