

# Setaria viridis

## Distribution



© Pavel Veselý

### 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]: **0.2-2**

Growth form: **annual herb**

Life form: **therophyte**

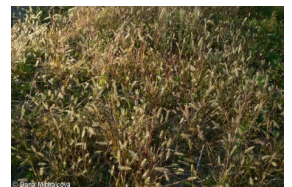
Life strategy: **R - ruderal**

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

Life strategy (Pierce method, C-score): **23.6 %**

Life strategy (Pierce method, S-score): **41.5 %**

Life strategy (Pierce method, R-score): **34.9 %**



© Janek Malý

## Leaf

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

Leaf arrangement (phyllotaxis): **alternate**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **absent**

Leaf life span: **summer green**

Leaf anatomy: **scleromorphic, mesomorphic**



© Dana Michalčová

## Flower

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

Flowering phase: **7 Ligustrum vulgare-Stachys sylvatica (end of early summer)**

Flower colour: **green**

Perianth type: **reduced**

Perianth fusion: **reduced**

Inflorescence type: **pseudospica e spiculis composita**

Dicliny: **synoecious**

Generative reproduction type: **autogamy**

Pollination syndrome: **wind-pollination**

## Fruit, seed and dispersal

Fruit type: **dry fruit - caryopsis**

Fruit colour: **brown**

Reproduction type: **only by seed/spores**

Dispersal unit (diaspore): **fruit, infrutescence or its part**

Dispersal strategy: **Bidens (mainly autochory and epizoochory)**

Myrmecochory: **non-myrmecochorous (b)**

## Belowground organs and clonality

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

Primary root: **absent**

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): **0**

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): **5**

Depth of the belowground bud bank (root buds excluded) [cm]: **1**

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): **0**

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): **5**

Depth of the belowground bud bank (root buds included) [cm]: **1**

## Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

## Karyology

Chromosome number (2n): **18**

Ploidy level (x): **2**

2C genome size [Mbp]: **868.97**

1Cx monoploid genome size [Mbp]: **434.48**

Genomic GC content: **46.1 %**



## Taxon origin

Origin in the Czech Republic: **archaeophyte**

Invasion status: **invasive**

Geographic origin: **Mediterranean**

## Ecological indicator values

### Ellenberg-type indicator values

Light indicator value: **7 - half-light plant, mostly occurring at full light, but also in the shade up to about 30% of diffuse radiation incident in an open area**

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

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

Reaction indicator value: **6x - transition between values 5 and 7 (generalist)**

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

Salinity indicator value: **1 - salt tolerant, mostly on low-salt to salt-free soils, but occasionally on slightly salty soils**

### Indicator values for disturbance

Whole-community disturbance frequency indicator value: **0.31**

Herb layer disturbance frequency indicator value: **0.31**

Whole-community disturbance severity indicator value: **0.91**

Herb layer disturbance severity indicator value: **0.91**

Whole-community structure based disturbance indicator value: **0.74**

Herb layer structure-based disturbance indicator value: **0.72**

## Habitat and sociology

### Occurrence in habitats

#### 1 Vegetation of cliffs, screes and walls

1A Calcareous cliffs: **1 - rare occurrence**

1B Siliceous cliffs and block fields: **1 - rare occurrence**

1C Walls: **1 - rare occurrence**

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

#### 4 Wetland and riverine herbaceous vegetation

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

#### 8 Dry grasslands

8B Submediterranean dry grasslands on rock outcrops: **1 - rare occurrence**

8C Narrow-leaved sub-continental steppes: **1 - rare occurrence**

#### 9 Sand grasslands and rock-outcrop vegetation

9B Open vegetation of acidic sands: **2 - optimum**

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

9D Pannonian sand steppes: **1 - rare occurrence**

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

9F Basiphilous vegetation of spring therophytes and succulents: **2 - optimum**

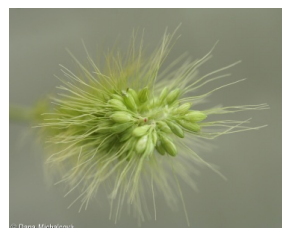
#### 12 Forests

12T Robinia pseudacacia plantations: **1 - rare occurrence**

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



© Pavel Veselý



© Dana Michalová



© Dana Michalová



© Milan Chytrý

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

13 Anthropogenic vegetation

13A Annual vegetation of ruderal habitats: **2 - optimum**

13B Annual vegetation of arable land: **2 - optimum**

13C Annual vegetation of trampled habitats: **1 - rare occurrence**

13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**

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 alliances: [XBF \*Spergulo arvensis-Erodion cicutariae\*](#), [XBJ \*Salsolion ruthenicae\*](#), [XBK \*Eragrostion cilianensi-minoris\*](#)

Diagnostic taxon of associations: [XAA04 \*Eragrostio minoris-Polygonetum arenastri\*](#), [XBA04 \*Stachyo annuae-Setarietum pumilae\*](#), [XBF01 \*Setario pumilae-Echinochloëtum cruris-galli\*](#), [XBJ01 \*Chenopodietum botryos\*](#), [XBJ03 \*Plantagini arenariae-Senecionetum viscosi\*](#), [XBK01 \*Digitario sanguinalis-Eragrostietum minoris\*](#), [XBK03 \*Eragrostio poaeoidis-Panicetum capillaris\*](#)

Constant taxon

Constant taxon of alliances: [XBF \*Spergulo arvensis-Erodion cicutariae\*](#)

Constant taxon of associations: [XBA04 \*Stachyo annuae-Setarietum pumilae\*](#), [XBF01 \*Setario pumilae-Echinochloëtum cruris-galli\*](#), [XBK03 \*Eragrostio poaeoidis-Panicetum capillaris\*](#)

Dominant taxon

Dominant taxon of associations: [XBK02 \*Portulacetum oleraceae\*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.5**

Ecological specialization index for non-forest vegetation: **4.5**

Colonization ability

Index of colonization success (ICS): **4**

Index of colonization potential (ICP): **4**

Optimum successional age [years]: **3**

## Distribution and frequency

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

Floristic region: **circumpolar**

Distribution range extension along the continentality gradient: **9**

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: **482**

taxon.data.freq\_in\_quad: **1187**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **0.8 %**





Occurrence frequency in vegetation plots with a cover above 5%: **14.4 %**

Occurrence frequency in vegetation plots with a cover above 25%: **1.3 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0.4 %**

Mean percentage cover in vegetation plots: **4.1 %**

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: **20**

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

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

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**

