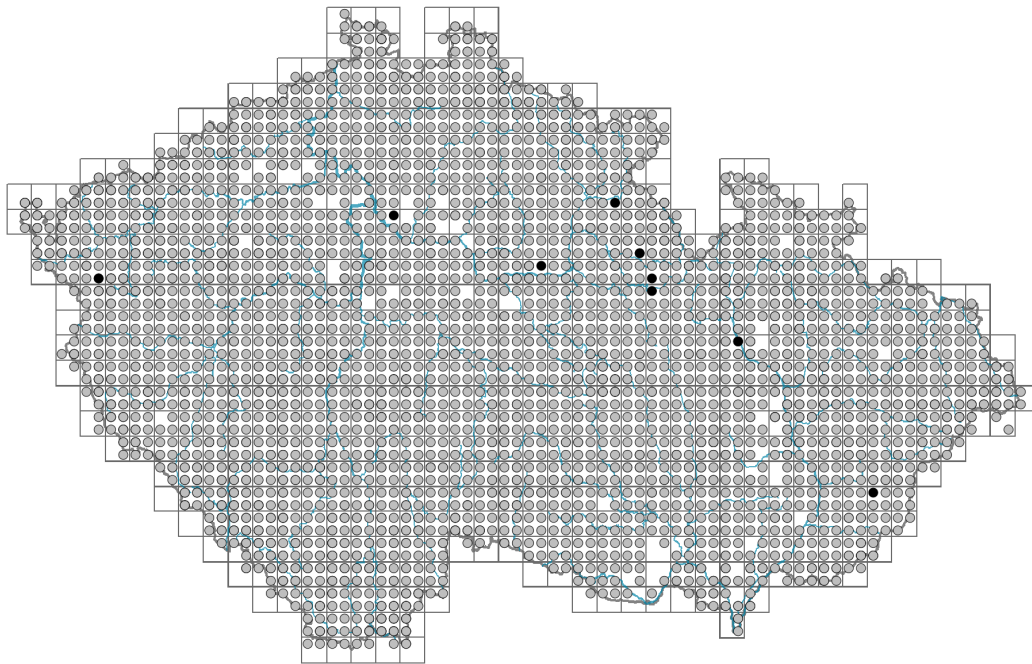


Festuca rubra

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]: **0.2-1**

Growth form: **clonal herb**

Life form: **hemicryptophyte**

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

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

Life strategy (Pierce method, C-score): **16.3 %**

Life strategy (Pierce method, S-score): **49.6 %**

Life strategy (Pierce method, R-score): **34.1 %**

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**



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Flowering phase: **6 Cornus sanguinea-Melica uniflora (start of early summer)**
 Flower colour: **green**
 Perianth type: **reduced**
 Perianth fusion: **reduced**
 Inflorescence type: **panicula e spiculis composita**
 Dicliny: **synoecious**
 Generative reproduction type: **allogamy self-incompatibility, facultative allogamy**
 Pollination syndrome: **wind-pollination**

Fruit, seed and dispersal

Fruit type: **dry fruit - caryopsis**
 Fruit colour: **brown**
 Reproduction type: **by seed/spores and vegetatively**
 Dispersal unit (diaspore): **fruit, infrutescence or its part**
 Dispersal strategy: **Allium (mainly autochory)**
 Myrmecochory: **non-myrmecochorous (b)**

Belowground organs and clonality

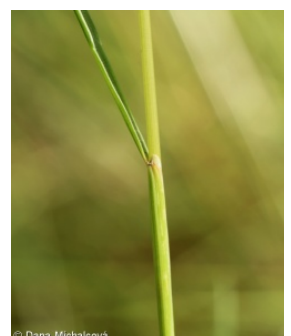
Shoot metamorphosis: **stolon**
 Storage organ: **stolon, tuft**
 Type of clonal growth organ: **epigeogenous rhizome, hypogeogenous rhizome**
 Freely dispersible organs of clonal growth: **absent**
 Shoot life span (cyclicality): **dicyclic or polycyclic shoots prevailing**
 Branching type of stem-derived organs of clonal growth: **sympodial**
 Primary root: **absent**
 Persistence of the clonal growth organ [year]: **4**
 Number of clonal offspring: **4.9**
 Lateral spreading distance by clonal growth [m]: **0.04**

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): **18**
 Depth of the belowground bud bank (root buds excluded) [cm]: **5**
 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): **18**
 Depth of the belowground bud bank (root buds included) [cm]: **5**

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**
 Carnivory: **non-carnivorous**
 Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**



Karyology

Chromosome number (2n): **42, 56**

Ploidy level (x): **6, 8**

2C genome size [Mbp]: **13014.32**

1Cx monoploid genome size [Mbp]: **1869.32**

Taxon origin

Origin in the Czech Republic: **native**

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: **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: **5x - indicator of moderate acidity, occurring rarely in strongly acidic as well as in neutral to alkaline conditions (generalist)**

Nutrient indicator value: **5x - occurring at moderately nutrient-rich sites, and less frequently at poor and rich sites (generalist)**

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: **-0.55**

Herb layer disturbance frequency indicator value: **-0.32**

Whole-community disturbance severity indicator value: **0.3**

Herb layer disturbance severity indicator value: **0.33**

Whole-community structure based disturbance indicator value: **0.56**

Herb layer structure-based disturbance indicator value: **0.71**

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**

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

2 Alpine and subalpine grasslands

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

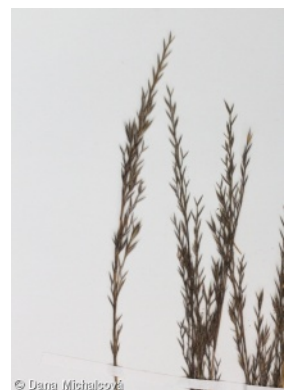
2B Subalpine tall-forb and tall-grass vegetation: **1 - rare occurrence**

3 Aquatic vegetation

3C Macrophytic vegetation of oligotrophic lakes and pools: **1 - rare occurrence**

4 Wetland and riverine herbaceous vegetation

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



- 4B Halophilous reed and sedge beds: **1 - rare occurrence**
- 4D Riverine reed vegetation: **1 - rare occurrence**
- 4E Reed vegetation of brooks: **1 - rare occurrence**
- 4G Tall-sedge beds: **1 - rare occurrence**
- 4H Vegetation of low annual hygrophilous herbs: **1 - rare occurrence**
- 4I Vegetation of nitrophilous annual hygrophilous herbs: **1 - rare occurrence**
- 4J River gravel banks: **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
- 5A Hard-water springs with tufa formation: **1 - rare occurrence**
- 5B Lowland to montane soft-water springs: **1 - rare occurrence**
- 5C Alpine and subalpine soft-water springs: **1 - rare occurrence**
- 5D Calcareous fens: **1 - rare occurrence**
- 5E Acidic moss-rich fens and peatland meadows: **2 - optimum**
- 5F Transitional mires: **1 - rare occurrence**
- 5G Raised bogs: **1 - rare occurrence**
- 6 Meadows and mesic pastures
- 6A Mesic Arrhenatherum meadows: **3 - dominant**
- 6B Montane mesic meadows: **3 - dominant**
- 6C Pastures and park grasslands: **2 - optimum**
- 6D Alluvial meadows of lowland rivers: **2 - optimum**
- 6E Wet Cirsium meadows: **2 - optimum**
- 6F Intermittently wet Molinia meadows: **3 - dominant**
- 6G Vegetation of wet disturbed soils: **1 - rare occurrence**
- 7 Acidophilous grasslands
- 7A Subalpine and montane acidophilous grasslands: **2 - optimum**
- 7B Submontane Nardus grasslands: **2 - optimum**
- 8 Dry grasslands
- 8A Hercynian dry grasslands on rock outcrops: **1 - rare occurrence**
- 8B Submediterranean dry grasslands on rock outcrops: **1 - rare occurrence**
- 8C Narrow-leaved sub-continental steppes: **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
- 9B Open vegetation of acidic sands: **1 - rare occurrence**
- 9C Festuca grasslands on acidic sands: **2 - optimum**
- 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: **1 - rare occurrence**
- 10 Saline vegetation
- 10I Inland saline meadows: **1 - rare occurrence**
- 10J Saline steppes: **1 - rare occurrence**
- 11 Heathlands and scrub
- 11A Dry lowland to subalpine heathlands: **1 - rare occurrence**
- 11D Subalpine acidophilous Pinus mugo scrub: **1 - rare occurrence**



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500 µm

- 11H Subalpine deciduous scrub: **1 - rare occurrence**
 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: **1 - rare occurrence**

12 Forests

- 12A Alder carrs: **1 - rare occurrence**
 12B Alluvial forests: **1 - rare occurrence**
 12C Oak-hornbeam forests: **1 - rare occurrence**
 12D Ravine forests: **1 - rare occurrence**
 12E Herb-rich beech forests: **1 - rare occurrence**
 12F Limestone beech forests: **1 - rare occurrence**
 12G Acidophilous beech forests: **1 - rare occurrence**
 12H Peri-Alpidic basiphilous thermophilous oak forests: **1 - rare occurrence**
 12I Sub-continental thermophilous oak forests: **1 - rare occurrence**
 12J Acidophilous thermophilous oak forests: **1 - rare occurrence**
 12K Acidophilous oak forests: **1 - rare occurrence**
 12L Boreo-continental pine forests: **1 - rare occurrence**
 12O Peri-Alpidic pine forests: **1 - rare occurrence**
 12R Acidophilous spruce forests: **1 - rare occurrence**
 12S Basiphilous spruce forests: **1 - rare occurrence**
 12T Robinia pseudacacia plantations: **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: **2 - optimum**

13 Anthropogenic vegetation

- 13A Annual vegetation of ruderal habitats: **1 - rare occurrence**
 13B Annual vegetation of arable land: **1 - rare occurrence**
 13C Annual vegetation of trampled habitats: **1 - rare occurrence**
 13D Perennial thermophilous ruderal vegetation: **1 - rare occurrence**
 13E Perennial nitrophilous herbaceous vegetation of mesic sites: **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: **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**

Diagnostic taxon

Diagnostic taxon of alliances: [TDB *Polygono bistortae-Trisetion flavescens*](#), [TDD *Molinion caeruleae*](#), [TEC *Violion caninae*](#)

Constant taxon

Constant taxon of classes: [TD *Molinio-Arrhenatheretea*](#)

Constant taxon of alliances: [RBC *Caricion canescenti-nigrae*](#), [TDA *Arrhenatherion elatioris*](#), [TDB *Polygono bistortae-Trisetion flavescens*](#), [TDD *Molinion caeruleae*](#), [TDF *Calthion palustris*](#), [TEA *Nardion strictae*](#), [TEB *Nardo strictae-Agrostion tenuis*](#), [TEC *Violion caninae*](#)

Constant taxon of associations: [MCG04 *Comaro palustris-Caricetum cespitosae*](#),

[RBA02 Carici flavae-Cratoneuretum filicini](#), [RBA03 Valeriano simplicifoliae-Caricetum flavae](#), [RBB01 Sphagno warnstorffii-Eriophoretum latifolii](#), [RBC01 Caricetum nigrae](#), [TDA01 Pastinaco sativae-Arrhenatheretum elatioris](#), [TDA02 Ranunculo bulbosi-Arrhenatheretum elatioris](#), [TDA03 Poo-Trisetetum flavescens](#), [TDA04 Potentillo albae-Festucetum rubrae](#), [TDB01 Geranio sylvatici-Trisetetum flavescens](#), [TDB02 Melandrio rubri-Phleetum alpini](#), [TDB03 Meo athamantici-Festucetum rubrae](#), [TDC01 Lolio perennis-Cynosuretum cristati](#), [TDC02 Anthoxantho odorati-Agrostietum tenuis](#), [TDD01 Molinietum caeruleae](#), [TDD02 Junco effusi-Molinietum caeruleae](#), [TDE02 Holcetum lanati](#), [TDF01 Angelico sylvestris-Cirsietum oleracei](#), [TDF02 Cirsietum rivularis](#), [TDF03 Angelico sylvestris-Cirsietum palustris](#), [TDF04 Crepido paludosae-Juncetum acutiflori](#), [TDF05 Polygono bistortae-Cirsietum heterophylli](#), [TDF06 Chaerophyllo hirsuti-Calthetum palustris](#), [TDF07 Scirpo sylvatici-Cirsietum cani](#), [TDF09 Caricetum cespitosae](#), [TDF10 Scirpo sylvatici-Caricetum brizoidis](#), [TEA02 Thesio alpini-Nardetum strictae](#), [TEB01 Sileno vulgaris-Nardetum strictae](#), [TEC01 Festuco capillatae-Nardetum strictae](#), [TEC02 Campanulo rotundifoliae-Dianthetum deltoidis](#), [TFB01 Airetum praecocis](#), [TFC01 Sileno otitae-Festucetum brevipilae](#), [THF02 Brachypodio pinnati-Molinietum arundinaceae](#), [THI02 Trifolio-Melampyretum nemorosi](#)

Dominant taxon

Dominant taxon of associations: [TDA02 Ranunculo bulbosi-Arrhenatheretum elatioris](#), [TDA03 Poo-Trisetetum flavescens](#), [TDA04 Potentillo albae-Festucetum rubrae](#), [TDB01 Geranio sylvatici-Trisetetum flavescens](#), [TDB02 Melandrio rubri-Phleetum alpini](#), [TDB03 Meo athamantici-Festucetum rubrae](#), [TDC01 Lolio perennis-Cynosuretum cristati](#), [TDD01 Molinietum caeruleae](#), [TDD02 Junco effusi-Molinietum caeruleae](#), [TDE02 Holcetum lanati](#), [TDF02 Cirsietum rivularis](#), [TEB01 Sileno vulgaris-Nardetum strictae](#), [TEC02 Campanulo rotundifoliae-Dianthetum deltoidis](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **4.9**

Ecological specialization index for non-forest vegetation: **5**

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

Colonization ability

Index of colonization success (ICS): **8**

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

Optimum successional age [years]: **30**

Distribution and frequency

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

Floristic region: **Europe, circumpolar**

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: 669

taxon.data.freq_in_quad: 2448

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **10.1 %**

Occurrence frequency in vegetation plots with a cover above 5%: **36.5 %**

Occurrence frequency in vegetation plots with a cover above 25%: **13.6 %**

Occurrence frequency in vegetation plots with a cover above 50%: **3.3 %**

Mean percentage cover in vegetation plots: **10.7 %**

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: **78**

Number of narrow habitats in which the taxon has its optimum: **11**

Number of broad habitats in which the taxon occurs: **13**

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

Threats and protection

Legal protection: **not protected by law**