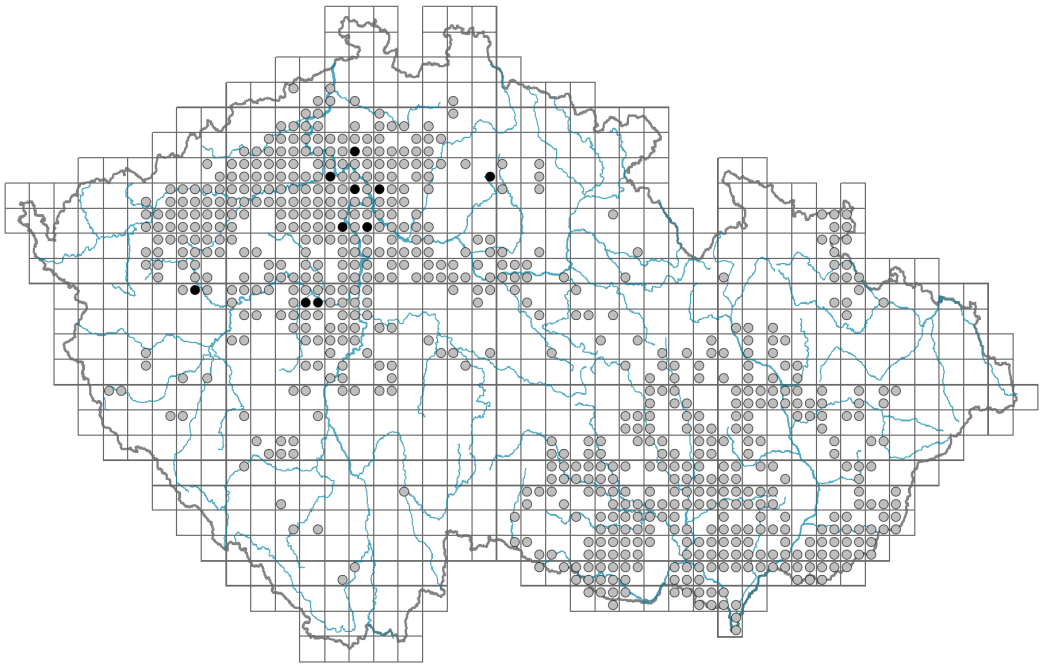
Koeleria macrantha

Distribution



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]: **0.2–0.6**
Growth form: **clonal herb**
Life form: **hemicryptophyte**
Life strategy: **CS – competitor/stress-tolerator**
Life strategy (Pierce method based on leaf traits): **S/CS**
Life strategy (Pierce method, C-score): **18.6 %**
Life strategy (Pierce method, S-score): **71.8 %**
Life strategy (Pierce method, R-score): **9.7 %**

Leaf

Leaf presence and metamorphosis: **leaves present, not modified**
Leaf arrangement (phyllotaxis): **alternate**
Leaf shape: **simple – entire**
Stipules: **absent**
Petiole: **absent**
Leaf life span: **summer green**
Leaf anatomy: **scleromorphic, mesomorphic**

Flower

Flowering period [month]: **May–June**

© 2014–2024 Pladias – Citation: Pladias – Database of the Czech Flora and Vegetation. www.pladias.cz

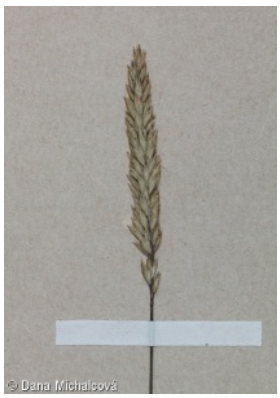
Flowering phase: **6 Cornus sanguinea-Melica uniflora (start of early summer)**
Flower colour: **green**
Perianth type: **reduced**
Perianth fusion: **reduced**
Inflorescence type: **pseudospica e spiculis composita**
Dicliny: **synoecious**
Generative reproduction type: **facultative allogamy**
Pollination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

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: **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**
Freely dispersible organs of clonal growth: **absent**
Shoot life span (cyclicity): **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: **3.5**
Lateral spreading distance by clonal growth [m]: **0.06**
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): **12**
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): **17**
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): **12**
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): **17**
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**

© 2014–2024 Pladias – Citation: Pladias – Database of the Czech Flora and Vegetation. www.pladias.cz

Karyology

Chromosome number (2n): **14**
Ploidy level (x): **2**
2C genome size [Mbp]: **3967.03**
1Cx monoploid genome size [Mbp]: **1983.51**
Genomic GC content: **45.2 %**

Taxon origin

Origin in the Czech Republic: **native**

Ecological indicator values

Ellenberg-type indicator values

Light indicator value: **8 – light plant, only exceptionally occurring at less than 40% of diffuse radiation incident in an open area**
Temperature indicator value: **6 – transition between values 5 and 7**
Moisture indicator value: **3 – missing on damp soil**
Reaction indicator value: **8 – transition between values 7 and 9, occurring mostly in calcium-rich conditions**
Nutrient indicator value: **2 – transition between values 1 and 3**
Salinity indicator value: **0 – not salt tolerant, glycophyte**

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-0.53**
Herb layer disturbance frequency indicator value: **-0.23**
Whole-community disturbance severity indicator value: **0.22**
Herb layer disturbance severity indicator value: **0.26**
Whole-community structure based disturbance indicator value: **0.56**
Herb layer structure-based disturbance indicator value: **0.64**

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**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 – rare occurrence**
6C Pastures and park grasslands: **1 – rare occurrence**

8 Dry grasslands

8A Hercynian dry grasslands on rock outcrops: **2 – optimum**
8B Submediterranean dry grasslands on rock outcrops: **2 – optimum**
8C Narrow-leaved sub-continental steppes: **2 – optimum**
8D Broad-leaved dry grasslands: **2 – optimum**
8E Acidophilous dry grasslands: **2 – optimum**
8F Thermophilous forest fringe vegetation: **1 – rare occurrence**

© 2014–2024 Pladias – Citation: Pladias – Database of the Czech Flora and Vegetation. www.pladias.cz

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: **2 – optimum**

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

11 Heathlands and scrub

11A Dry lowland to subalpine heathlands: **1 – rare occurrence**

11L Tall mesic and xeric shrub: **1 – rare occurrence**

11N Low xeric scrub: **1 – rare occurrence**

12 Forests

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**

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

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

12W Pine and larch plantations: **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 classes: **TH *Festuco-Brometea***

Diagnostic taxon of alliances: **THD *Festucion valesiacae***, **THG *Koelerio-Phleion phleoidis***

Diagnostic taxon of associations: **THA04 *Helichryso arenariae-Festucetum pallentis***, **THD01 *Festuco valesiacae-Stipetum capillatae***, **THD02 *Erysimo crepidifolii-Festucetum valesiacae***, **THD03 *Festuco rupicolae-Caricetum humilis***, **THD06 *Astragalo exscapi-Crambetum tatariae***, **THG01 *Potentillo heptaphyllae-Festucetum rupicolae***, **THG02 *Avenulo pratensis-Festucetum valesiacae***

Constant taxon

Constant taxon of alliances: **TEE *Euphorbio cyparissiae-Callunion vulgaris***, **THB *Bromo pannonici-Festucion pallentis***, **THD *Festucion valesiacae***, **THG *Koelerio-Phleion phleoidis***

Constant taxon of associations: **TEE01 *Euphorbio cyparissiae-Callunetum vulgaris***, **THA02 *Seselio ossei-Festucetum pallentis***, **THA04 *Helichryso arenariae-Festucetum pallentis***, **THB01 *Poo badensis-Festucetum pallentis***, **THC02 *Minuartio setaceae-Seslerietum caeruleae***, **THD01 *Festuco valesiacae-Stipetum capillatae***, **THD02 *Erysimo crepidifolii-Festucetum valesiacae***, **THD03 *Festuco rupicolae-Caricetum humilis***, **THD04 *Koelerio macranthae-Stipetum joannis***, **THD05 *Stipetum tirsae***, **THD06 *Astragalo exscapi-Crambetum tatariae***, **THE03 *Polygalo majoris-Brachypodietum pinnati***, **THG01 *Potentillo heptaphyllae-Festucetum rupicolae***, **THG02 *Avenulo pratensis-Festucetum valesiacae***

Dominant taxon

Dominant taxon of associations: **THD01 *Festuco valesiacae-Stipetum capillatae***, **THD02 *Erysimo crepidifolii-Festucetum valesiacae***

Ecological specialization indices

© 2014-2024 Pladias – Citation: Pladias – Database of the Czech Flora and Vegetation. www.pladias.cz

Ecological specialization index for all vegetation types: **4.7**
Ecological specialization index for non-forest vegetation: **4.8**
Ecological specialization index for forest vegetation: **4.9**

Colonization ability

Index of colonization success (ICS): **6**
Index of colonization potential (ICP): **4**
Optimum successional age [years]: **35**

Distribution and frequency

Floristic zone: **northern temperate, southern temperate, submeridional, meridional, subtropical, tropical, austral or antarctic**
Floristic region: **Americas, circumpolar**
Distribution range extension along the continentality gradient: **8**
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: 293
taxon.data.freq_in_quad: 683

Commonness in vegetation plots from the Czech Republic

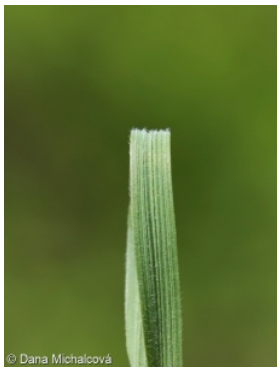
Occurrence frequency in vegetation plots: **2.2 %**
Occurrence frequency in vegetation plots with a cover above 5%: **16.3 %**
Occurrence frequency in vegetation plots with a cover above 25%: **3.3 %**
Occurrence frequency in vegetation plots with a cover above 50%: **0.2 %**
Mean percentage cover in vegetation plots: **4.9 %**
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: **25**
Number of narrow habitats in which the taxon has its optimum: **8**
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**



© 2014–2024 Pladias – Citation: Pladias – Database of the Czech Flora and Vegetation. www.pladias.cz