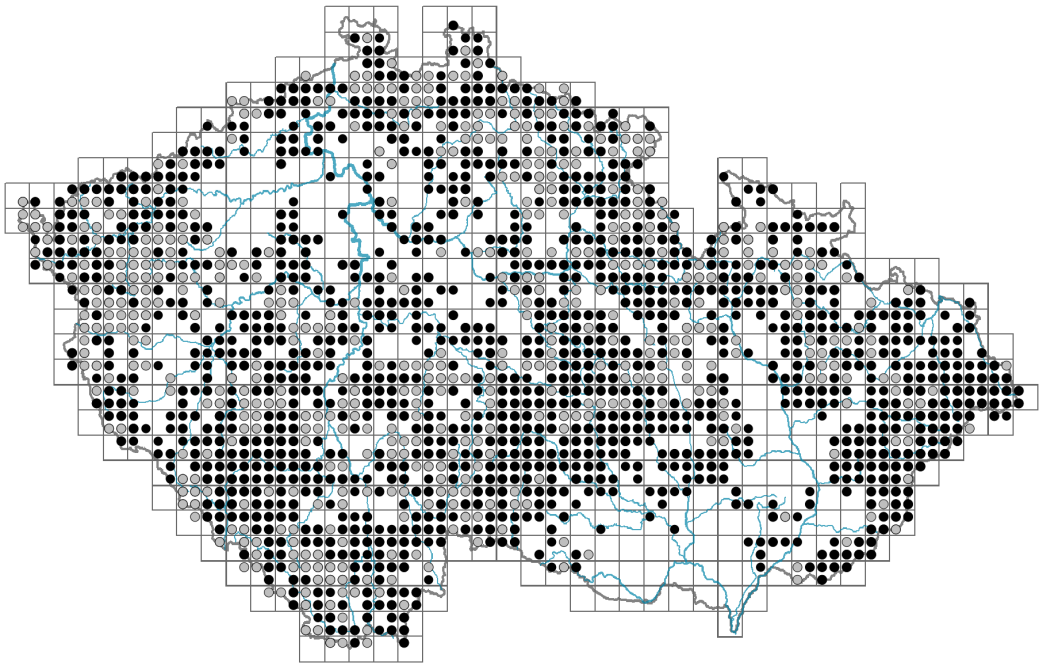
Dactylorhiza majalis

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]: **0.2–0.7**
Growth form: **clonal herb**
Life form: **geophyte**
Life strategy: **CSR – competitor/stress-tolerator/ruderal**
Life strategy (Pierce method based on leaf traits): **CR**
Life strategy (Pierce method, C-score): **53.5 %**
Life strategy (Pierce method, S-score): **0 %**
Life strategy (Pierce method, R-score): **46.5 %**

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: **mesomorphic**

Flower

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

Flowering phase: **5 Sorbus aucuparia-Galium odoratum (end of mid-spring)**
Flower colour: **white, pink, red-violet**
Flower symmetry: **zygomorphic**
Perianth type: **homochlamydeous**
Perianth fusion: **free**
Inflorescence type: **spica**
Dicliny: **synoecious**
Generative reproduction type: **facultative allogamy**
Pollination syndrome: **insect-pollination**

Fruit, seed and dispersal

Fruit type: **dry fruit – capsule**
Fruit colour: **green, brown**
Reproduction type: **only by seed/spores**
Dispersal unit (diaspore): **seed**
Dispersal strategy: **Lycopodium (mainly anemochory)**
Myrmecochory: **non-myrmecochorous (b)**

Belowground organs and clonality

Root metamorphosis: **root tuber**
Storage organ: **root tuber**
Type of clonal growth organ: **root tuber**
Freely dispersible organs of clonal growth: **absent**
Shoot life span (cyclicity): **monocyclic shoots prevailing**
Branching type of stem-derived organs of clonal growth: **sympodial**
Primary root: **absent**
Persistence of the clonal growth organ [year]: **1**
Number of clonal offspring: **1.8**
Lateral spreading distance by clonal growth [m]: **0.01**
Clonal index: **3**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded): **3**
Number of buds per shoot at a depth of 0–10 cm (root buds excluded): **5**
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): **8**
Depth of the belowground bud bank (root buds exluded) [cm]: **4**
Number of buds per shoot at the soil surface (root buds included): **3**
Number of buds per shoot at a depth of 0–10 cm (root buds included): **5**
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): **8**
Depth of the belowground bud bank (root buds included) [cm]: **4**

Trophic mode

Parasitism and mycoheterotrophy: **partial or initial mycoheterotroph**
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**

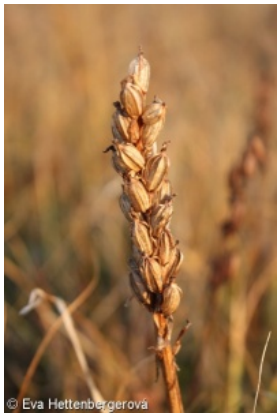
Karyology

Chromosome number (2n): **80**
Ploidy level (x): **4**
2C genome size [Mbp]: **13437.8**
1Cx monoploid genome size [Mbp]: **3359.45**
Genomic GC content: **45.3 %**

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: **5 – moderate heat indicator, occurring from lowland to montane belt, mainly in submontane-temperate areas**
Moisture indicator value: **8 – transition between values 7 and 9**
Reaction indicator value: **6 – transition between values 5 and 7**
Nutrient indicator value: **3 – occurring at nutrient-poor sites more frequently than at average sites and exceptionally at rich sites**
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: **-0.45**
Herb layer disturbance frequency indicator value: **-0.42**
Whole-community disturbance severity indicator value: **0.21**
Herb layer disturbance severity indicator value: **0.25**
Whole-community structure based disturbance indicator value: **0.63**
Herb layer structure-based disturbance indicator value: **0.77**

Habitat and sociology

Occurrence in habitats

4 Wetland and riverine herbaceous vegetation

4G Tall-sedge beds: **1 – rare occurrence**
4K Petasites fringes of montane brooks: **1 – rare occurrence**

5 Vegetation of springs and mires

5D Calcareous fens: **2 – optimum**
5E Acidic moss-rich fens and peatland meadows: **2 – optimum**
5F Transitional mires: **1 – rare occurrence**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **1 – rare occurrence**
6B Montane mesic meadows: **1 – rare occurrence**
6D Alluvial meadows of lowland rivers: **1 – rare occurrence**
6E Wet Cirsium meadows: **2 – optimum**

6F Intermittently wet Molinia meadows: **2 – optimum**

7 Acidophilous grasslands

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

10 Saline vegetation

10I Inland saline meadows: **1 – rare occurrence**

10J Saline steppes: **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: **RBA *Caricion davallianae***, **RBB *Sphagno warnstorfii-Tomentypnion nitentis***

Diagnostic taxon of associations: **RBA01 *Valeriano dioicae-Caricetum davallianae***, **RBA03 *Valeriano simplicifoliae-Caricetum flavae***, **RBB01 *Sphagno warnstorfii-Eriophoretum latifolii***, **TDF02 *Cirsietum rivularis***

Constant taxon

Constant taxon of alliances: **RBA *Caricion davallianae***

Constant taxon of associations: **RBA01 *Valeriano dioicae-Caricetum davallianae***, **RBA03 *Valeriano simplicifoliae-Caricetum flavae***, **RBB01 *Sphagno warnstorfii-Eriophoretum latifolii***, **TDF02 *Cirsietum rivularis***

Ecological specialization indices

Ecological specialization index for all vegetation types: **6.1**

Ecological specialization index for non-forest vegetation: **6.1**

Colonization ability

Index of colonization success (ICS): **1**

Index of colonization potential (ICP): **1**

Distribution and frequency

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

Floristic region: **Europe, Western Asia**

Continentality degree: **6**

Distribution range extension along the continentality gradient: **5**

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: 584

taxon.data.freq_in_quad: 1729

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **1.5 %**

Occurrence frequency in vegetation plots with a cover above 5%: **1.6 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0 %**

Occurrence frequency in vegetation plots with a cover above 50%: **0 %**

Mean percentage cover in vegetation plots: **2 %**

Maximum percentage cover in vegetation plots: **13 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **13**
Number of narrow habitats in which the taxon has its optimum: **4**
Number of broad habitats in which the taxon occurs: **5**
Number of broad habitats in which the taxon has its optimum: **2**

Threats and protection

Red List 2017 (national categories): **C3 – vulnerable taxon**
Red List 2017 (IUCN categories): **NT – near threatened**
Legal protection: **vulnerable taxon**