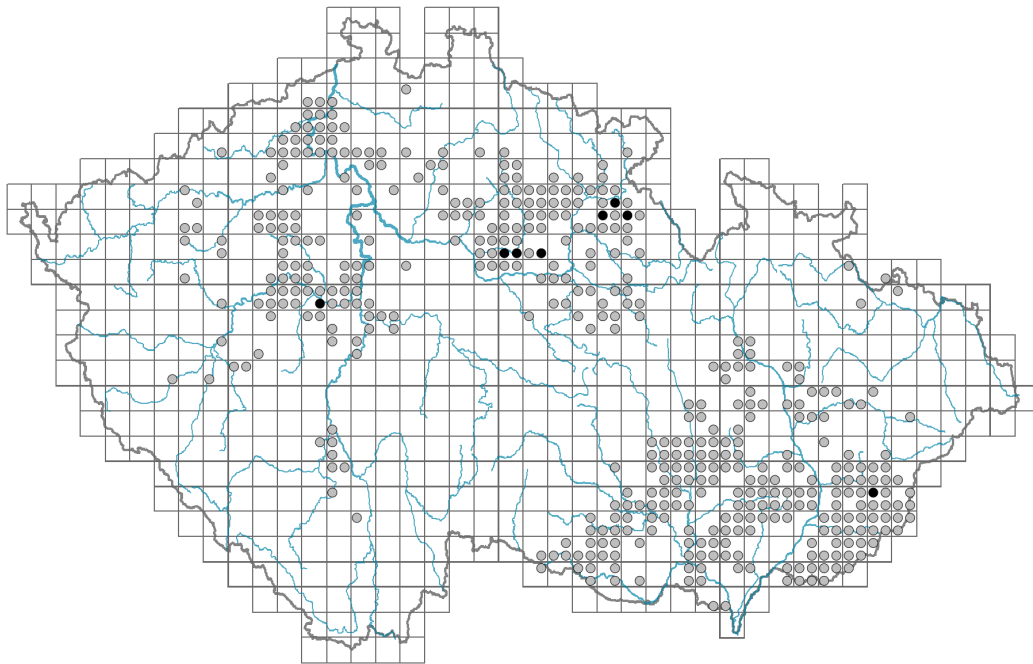


Melittis melissophyllum

Distribution



© Petr Václavík

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: **C - competitor**

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

Life strategy (Pierce method, C-score): **38.2 %**

Life strategy (Pierce method, S-score): **0 %**

Life strategy (Pierce method, R-score): **61.8 %**

Leaf

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

Leaf arrangement (phyllotaxis): **opposite**

Leaf shape: **simple - entire**

Stipules: **absent**

Petiole: **present**

Leaf life span: **summer green**

Leaf anatomy: **mesomorphic, hygromorphic**

Flower

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



© Milan Chytrý



© Hana Sekerková



© Veronika Kanišová

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

Flower colour: **white, pink**

Flower symmetry: **zygomorphic**

Perianth type: **calyx and corolla**

Perianth fusion: **fused**

Shape of the sympetalous corolla or syntepalous perianth: **bilabiate**

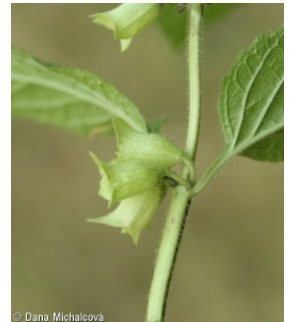
Calyx fusion: **synsepalous**

Inflorescence type: **pseudospica e verticillastris composita**

Dicliny: **synoecious**

Generative reproduction type: **facultative allogamy**

Pollination syndrome: **insect-pollination**



Fruit, seed and dispersal

Fruit type: **dry fruit - cluster of four one-seeded nutlets**

Fruit colour: **grey**

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

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

Dispersal strategy: **Allium (mainly autochory)**

Myrmecochory: **probably non-myrmecochorous**

Belowground organs and clonality

Shoot metamorphosis: **rhizome**

Storage organ: **rhizome**

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

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

Shoot life span (cyclicality): **monocyclic 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: **1**

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): **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): **20**

Depth of the belowground bud bank (root buds excluded) [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): **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): **20**

Depth of the belowground bud bank (root buds included) [cm]: **4**



© Pavel Veselý



© Pavel Veselý

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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

Karyology

Chromosome number (2n): **30**

Ploidy level (x): **4**

2C genome size [Mbp]: **937.08**

1Cx monoploid genome size [Mbp]: **234.27**

Genomic GC content: **39 %**

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: **7 - heat indicator, occurring in relatively warm lowlands**

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

Reaction indicator value: **7 - indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions**

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

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

Indicator values for disturbance

Whole-community disturbance frequency indicator value: **-1.97**

Herb layer disturbance frequency indicator value: **-0.72**

Whole-community disturbance severity indicator value: **0.22**

Herb layer disturbance severity indicator value: **0.04**

Whole-community structure based disturbance indicator value: **0.08**

Herb layer structure-based disturbance indicator value: **0.18**

Habitat and sociology

Occurrence in habitats

8 Dry grasslands

8F Thermophilous forest fringe vegetation: **1 - rare occurrence**

12 Forests

12C Oak-hornbeam forests: **2 - optimum**

12D Ravine forests: **1 - rare occurrence**

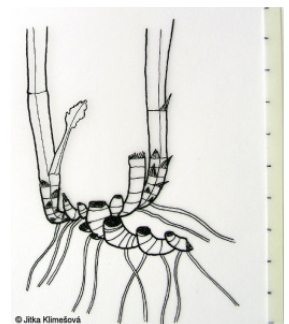
12E Herb-rich beech forests: **1 - rare occurrence**

12F Limestone beech forests: **2 - optimum**

12H Peri-Alpidic basiphilous thermophilous oak forests: **2 - optimum**

12I Sub-continental thermophilous oak forests: **2 - optimum**

12J Acidophilous thermophilous oak forests: **1 - rare occurrence**



12V Spruce plantations: **1 - rare occurrence**

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

Affinity to the forest environment

Affinity to the forest environment in Thermophyticum: **1.1 - taxon occurring mainly in the closed forest**

Affinity to the forest environment in Mesophyticum and Oreophyticum: **1.1 - taxon occurring mainly in the closed forest**

Diagnostic taxon

Diagnostic taxon of classes: [LC *Quercetea pubescentis*](#)

Diagnostic taxon of alliances: [LBB *Carpinion betuli*](#), [LCA *Quercion pubescenti-petraeae*](#), [LCB *Aceri tatarici-Quercion*](#), [LCC *Quercion petraeae*](#)

Diagnostic taxon of associations: [LBB04 *Primulo veris-Carpinetum betuli*](#), [LCA01 *Lathyro collini-Quercetum pubescentis*](#), [LCA03 *Euphorbio-Quercetum*](#), [LCB01 *Quercetum pubescenti-roboris*](#), [LCC03 *Melico pictae-Quercetum roboris*](#)

Constant taxon

Constant taxon of associations: [LBB04 *Primulo veris-Carpinetum betuli*](#), [LCB01 *Quercetum pubescenti-roboris*](#), [LCC03 *Melico pictae-Quercetum roboris*](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5.8**

Ecological specialization index for non-forest vegetation: **4.1**

Ecological specialization index for forest vegetation: **5.9**

Colonization ability

Index of colonization success (ICS): **2**

Index of colonization potential (ICP): **2**

Optimum successional age [years]: **45**

Distribution and frequency

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

Floristic region: **Europe**

Continental degree: **4**

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

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: **213**

taxon.data.freq_in_quad: **445**

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%: **2.2 %**

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: **2.1 %**

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: **10**

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

Number of broad habitats in which the taxon occurs: **2**

Number of broad habitats in which the taxon has its optimum: **1**

Threats and protection

Red List 2017 (national categories): **C4a - near threatened taxon**

Red List 2017 (IUCN categories): **LC - least concern**

Legal protection: **vulnerable taxon**