Descurainia sophia

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]: **0.2–0.8**
Growth form: **annual herb**
Life form: **therophyte**
Life strategy: **CR – competitor/ruderal**
Life strategy (Pierce method based on leaf traits): **R/CSR**
Life strategy (Pierce method, C-score): **30.2 %**
Life strategy (Pierce method, S-score): **10.7 %**
Life strategy (Pierce method, R-score): **59.1 %**

Leaf

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

Flower

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

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Flowering phase: **5 Sorbus aucuparia-Galium odoratum (end of mid-spring)**
Flower colour: **yellow**
Flower symmetry: **actinomorphic**
Perianth type: **calyx and corolla**
Perianth fusion: **free**
Calyx fusion: **aposepalous**
Inflorescence type: **racemus**
Dicliny: **synoecious**
Generative reproduction type: **facultative autogamy**
Pollination syndrome: **insect-pollination, selfing**



Fruit, seed and dispersal



Fruit type: **dry fruit – siliqua**
Fruit colour: **brown**
Reproduction type: **only by seed/spores**
Dispersal unit (diaspore): **seed**
Dispersal strategy: **Allium (mainly autochory)**
Myrmecochory: **non-myrmecochorous (b)**

Belowground organs and clonality

Shoot life span (cyclicity): **monocyclic shoots prevailing**
Primary root: **present**

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 exluded) [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): **28**
Ploidy level (x): **4**
2C genome size [Mbp]: **547.79**
1Cx monoploid genome size [Mbp]: **136.95**
Genomic GC content: **39 %**

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Taxon origin



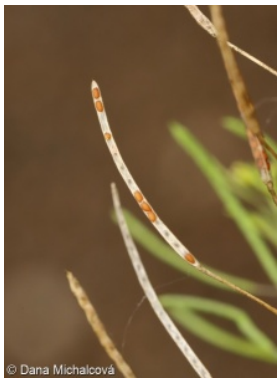
Origin in the Czech Republic: **archaeophyte**
Invasion status: **naturalized**
Geographic origin: **Mediterranean, Asia**
Period of introduction: **Bronze Age (2300–750 BCE)**
Introduction pathway: **unintentional – agriculture**



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: **4 – transition between values 3 and 5**
Reaction indicator value: **7x – indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions (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: **-0.05**
Herb layer disturbance frequency indicator value: **-0.05**
Whole-community disturbance severity indicator value: **0.9**
Herb layer disturbance severity indicator value: **0.9**
Whole-community structure based disturbance indicator value: **0.7**
Herb layer structure-based disturbance indicator value: **0.72**



Habitat and sociology

Occurrence in habitats

4 Wetland and riverine herbaceous vegetation

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

6 Meadows and mesic pastures

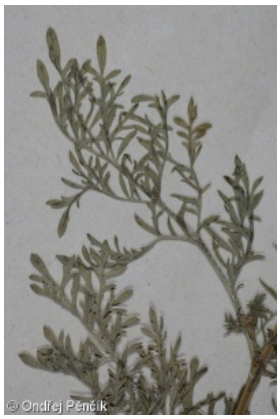
6G Vegetation of wet disturbed soils: **1 – rare occurrence**

8 Dry grasslands

8A Hercynian 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: **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: **1 – rare occurrence**



10 Saline vegetation

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

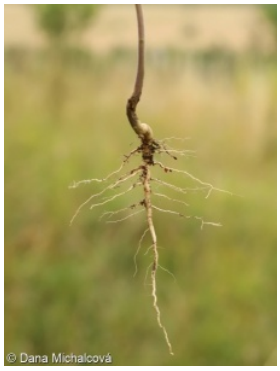
11 Heathlands and scrub

11R Scrub and pioneer woodland of forests clearings: **1 – rare occurrence**

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12 Forests

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

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

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: **2 – optimum**

13E Perennial nitrophilous herbaceous vegetation of mesic sites: **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: **XBA *Caucalidion***, **XCA *Onopordion acanthii***

Diagnostic taxon of associations: **XBA02 *Lathyro tuberosi-Adonidetum aestivalis***, **XBA05 *Veronicetum hederifolio-triphylli***, **XBG02 *Chenopodietum urbici***, **XBG08 *Descurainietum sophiae***

Constant taxon

Constant taxon of associations: **XBA02 *Lathyro tuberosi-Adonidetum aestivalis***, **XBG02 *Chenopodietum urbici***, **XBG08 *Descurainietum sophiae***, **XBI02 *Malvetum pusillae***

Dominant taxon

Dominant taxon of associations: **XBG02 *Chenopodietum urbici***, **XBG08 *Descurainietum sophiae***

Ecological specialization indices

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

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

Colonization ability

Index of colonization success (ICS): **5**

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

Optimum successional age [years]: **4.5**

Distribution and frequency

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

Floristic region: **Europe, Asia**

Continentality degree: **7**

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: 520

taxon.data.freq_in_quad: 1337

Commonness in vegetation plots from the Czech Republic

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Occurrence frequency in vegetation plots: **1.5 %**
Occurrence frequency in vegetation plots with a cover above 5%: **9 %**
Occurrence frequency in vegetation plots with a cover above 25%: **3.4 %**
Occurrence frequency in vegetation plots with a cover above 50%: **0.7 %**
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: **18**
Number of narrow habitats in which the taxon has its optimum: **3**
Number of broad habitats in which the taxon occurs: **8**
Number of broad habitats in which the taxon has its optimum: **1**

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**

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