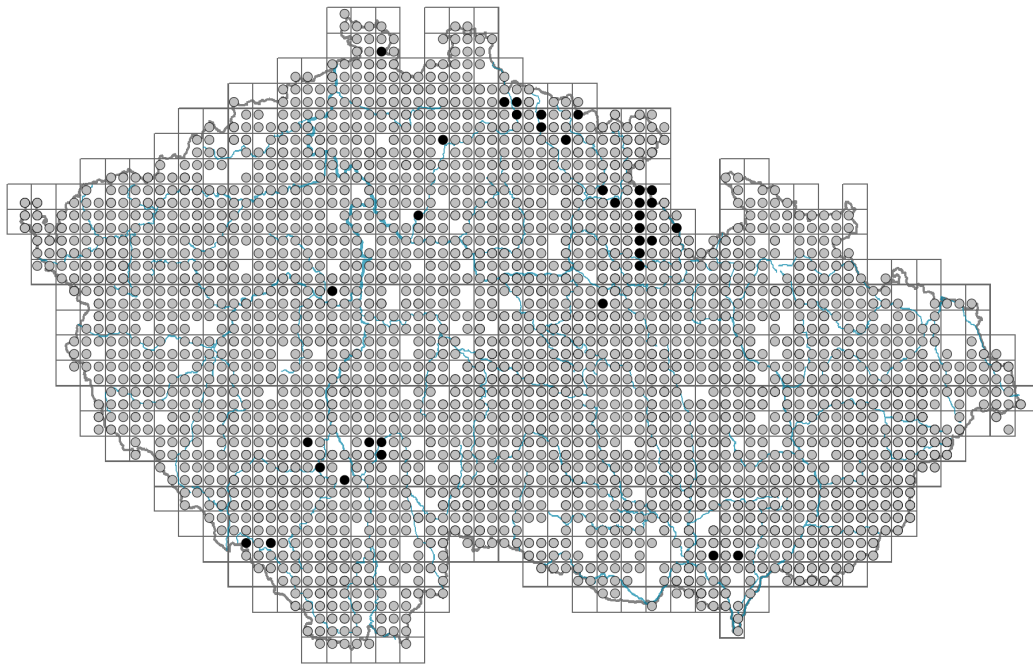


Knautia arvensis agg.

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]: **0.25-1.1**

Growth form: **polycarpic perennial non-clonal herb**

Life form: **hemicryptophyte**

Life strategy: **C - competitor**

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

Life strategy (Pierce method, C-score): **70.3 %**

Life strategy (Pierce method, S-score): **5.7 %**

Life strategy (Pierce method, R-score): **24.1 %**

Leaf

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

Leaf arrangement (phyllotaxis): **opposite, rosulate**

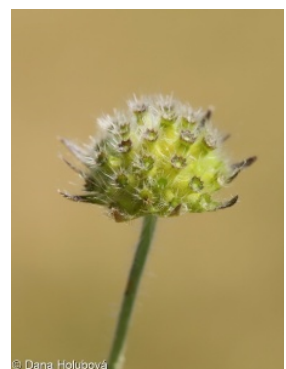
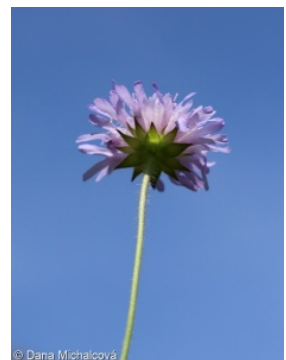
Leaf shape: **simple - entire, simple - pinnately divided**

Stipules: **absent**

Petiole: **both present and absent, absent**

Leaf life span: **summer green, evergreen**

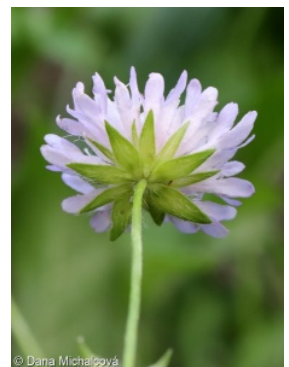
Leaf anatomy: **mesomorphic**



Flower

Flowering period [month]: **June-September**

Flowering phase: **7 Ligustrum vulgare-Stachys sylvatica (end of early summer)**
 Flower colour: **yellow-white, yellow, pink, pink-violet, red-violet**
 Flower symmetry: **zygomorphic**
 Perianth type: **calyx reduced, corolla present**
 Perianth fusion: **fused**
 Shape of the sympetalous corolla or syntepalous perianth: **funnel-shaped, tubular**
 Calyx fusion: **synsepalous**
 Inflorescence type: **capitulum**
 Dicliny: **gynodioecious**
 Generative reproduction type: **facultative allogamy**
 Pollination syndrome: **insect-pollination, selfing**
 Pollinator spectrum: **honeybee, bumblebees, solitary bees, hoverflies, flies s. l., meat flies s. l., other Diptera, butterflies, beetles, nitidulids, other pollinators, unknown**



Fruit, seed and dispersal

Fruit type: **dry fruit - achene/cypsela/samara**
 Fruit colour: **green, yellow, brown**
 Reproduction type: **only by seed/spores**
 Dispersal unit (diaspore): **fruit, infrutescence or its part**
 Dispersal strategy: **Allium (mainly autochory)**
 Myrmecochory: **myrmecochorous**

Belowground organs and clonality

Shoot metamorphosis: **pleiocorm**
 Root metamorphosis: **primary storage root**
 Storage organ: **pleiocorm, primary storage root**
 Shoot life span (cyclicity): **monocyclic shoots prevailing, dicyclic or polycyclic shoots prevailing**
 Branching type of stem-derived organs of clonal growth: **sympodial**
 Primary root: **present**
 Position of root buds: **primary root**
 Role of root buds in life-history of a plant: **additive**

Bud bank

Number of buds per shoot at the soil surface (root buds excluded):
 Number of buds per shoot at a depth of 0–10 cm (root buds excluded):
 Number of buds per shoot at a depth greater than 10 cm (root buds excluded):
 Size of the belowground bud bank (root buds excluded):
 Depth of the belowground bud bank (root buds excluded) [cm]:
 Number of buds per shoot at the soil surface (root buds included):
 Number of buds per shoot at a depth of 0–10 cm (root buds included): **17**
 Number of buds per shoot at a depth greater than 10 cm (root buds included): **8**
 Size of the belowground bud bank (root buds included): **29**
 Depth of the belowground bud bank (root buds included) [cm]: **6**

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**

Carnivory: **non-carnivorous**

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



Karyology

Chromosome number (2n): **20**

Ploidy level (x): **2**

2C genome size [Mbp]: **6302.71**

1Cx monoploid genome size [Mbp]: **3151.36**

Genomic GC content: **38.1 %**



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: **6x - transition between values 5 and 7 (generalist)**

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

Reaction indicator value: **6x - transition between values 5 and 7 (generalist)**

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: **-0.54**

Herb layer disturbance frequency indicator value: **-0.21**

Whole-community disturbance severity indicator value: **0.31**

Herb layer disturbance severity indicator value: **0.34**

Whole-community structure based disturbance indicator value: **0.54**

Herb layer structure-based disturbance indicator value: **0.67**



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

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

4 Wetland and riverine herbaceous vegetation

4D Riverine reed vegetation: **1 - rare occurrence**

5 Vegetation of springs and mires



5D Calcareous fens: **1 - rare occurrence**

5E Acidic moss-rich fens and peatland meadows: **1 - rare occurrence**

6 Meadows and mesic pastures

6A Mesic Arrhenatherum meadows: **2 - optimum**

6B Montane mesic meadows: **2 - optimum**

6C Pastures and park grasslands: **2 - optimum**

6D Alluvial meadows of lowland rivers: **1 - rare occurrence**

6E Wet Cirsium meadows: **1 - rare occurrence**

6F Intermittently wet Molinia meadows: **1 - rare occurrence**

7 Acidophilous grasslands

7A Subalpine and montane acidophilous grasslands: **1 - rare occurrence**

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: **2 - optimum**

8D Broad-leaved dry grasslands: **2 - optimum**

8E Acidophilous dry grasslands: **2 - optimum**

8F Thermophilous forest fringe vegetation: **2 - optimum**

9 Sand grasslands and rock-outcrop vegetation

9C Festuca grasslands on acidic sands: **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

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

11H Subalpine deciduous scrub: **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**

12 Forests

12B Alluvial forests: **1 - rare occurrence**

12C Oak-hornbeam forests: **1 - rare occurrence**

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

12F Limestone 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**

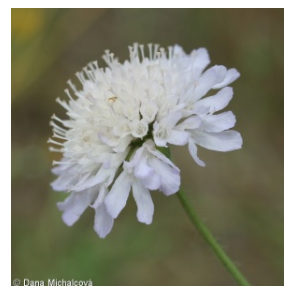
12O Peri-Alpidic pine forests: **1 - rare occurrence**

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



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**

Diagnostic taxon

Diagnostic taxon of alliances: [TDA Arrhenatherion elatioris](#), [THF Bromion erecti](#)

Diagnostic taxon of associations: [TDA04 Potentillo albae-Festucetum rubrae](#), [THF01 Carlino acaulis-Brometum erecti](#)

Constant taxon

Constant taxon of alliances: [TDA Arrhenatherion elatioris](#), [THE Cirsio-Brachypodium pinnati](#), [THF Bromion erecti](#), [THI Trifolium medii](#)

Constant taxon of associations: [ACA01 Saxifraga oppositifoliae-Festucetum versicoloris](#), [TDA01 Pastinaco sativae-Arrhenatheretum elatioris](#), [TDA02 Ranunculo bulbosi-Arrhenatheretum elatioris](#), [TDA03 Poo-Trisetetum flavescentis](#), [TDA04 Potentillo albae-Festucetum rubrae](#), [TDB01 Geranio sylvatici-Trisetetum flavescentis](#), [TEC02 Campanulo rotundifoliae-Dianthetum deltoidis](#), [THE01 Scabioso ochroleucaae-Brachypodietum pinnati](#), [THE03 Polygalo majoris-Brachypodietum pinnati](#), [THF01 Carlino acaulis-Brometum erecti](#), [THF02 Brachypodio pinnati-Molinietum arundinaceae](#), [THG03 Viscario vulgaris-Avenuletum pratensis](#), [THI01 Trifolio medii-Agrimoniolum eupatoriaae](#)

Ecological specialization indices

Ecological specialization index for all vegetation types: **5**

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

Ecological specialization index for forest vegetation: **4.4**

Distribution and frequency

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

Floristic region: **Europe, Western Siberia**

Elevational belt in the Czech Republic: **lowlands, colline belt, submontane belt, montane belt, subalpine belt**

Occurrence frequency in the basic grid mapping cells and quadrants of the basic grid mapping cells: **652**

taxon.data.freq_in_quad: **2287**

Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **5 %**

Occurrence frequency in vegetation plots with a cover above 5%: **2.8 %**

Occurrence frequency in vegetation plots with a cover above 25%: **0.1 %**

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

Mean percentage cover in vegetation plots: **2.4 %**

Maximum percentage cover in vegetation plots: **38 %**

Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **46**

Number of narrow habitats in which the taxon has its optimum: **9**

Number of broad habitats in which the taxon occurs: **12**

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

