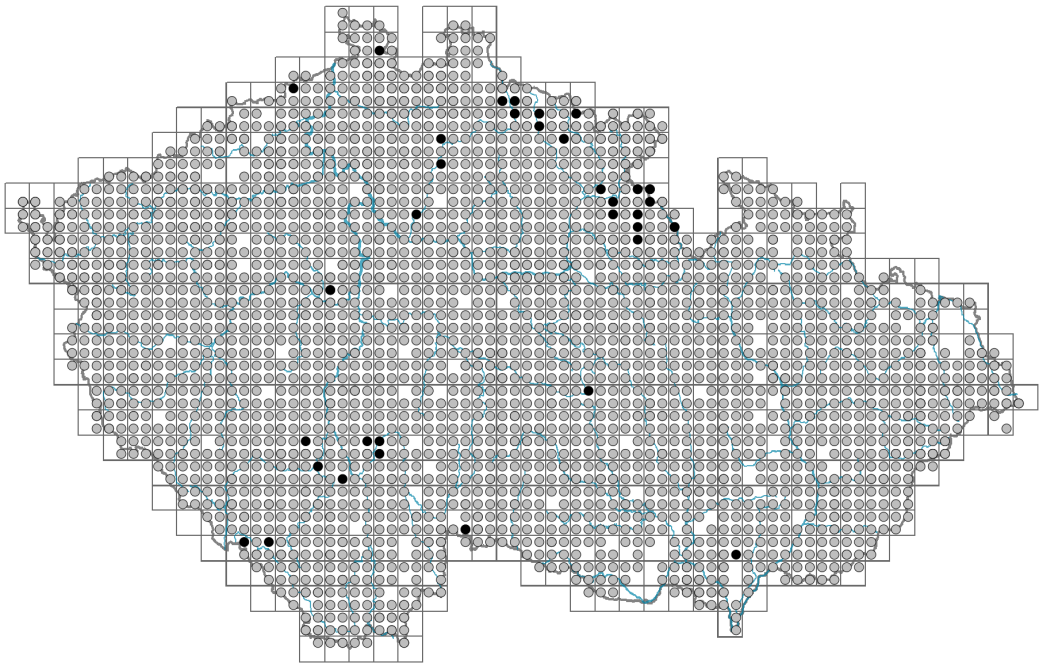
Knautia arvensis

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]: **0.4–0.9**
Growth form: **polycarpic perennial non-clonal herb**
Life form: **hemicryptophyte**
Life strategy: **C – competitor**



Leaf

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



Flower

Flowering period [month]: **June–September**
Flowering phase: **7 Ligustrum vulgare-Stachys sylvatica (end of early summer)**
Flower colour: **pink, pink-violet, red-violet**
Flower symmetry: **zygomorphic**
Perianth type: **calyx reduced, corolla present**

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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: **bumblebees, solitary bees, hoverflies, butterflies (honeybee, flies s. l., meat flies s. l., other Diptera, 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): **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): **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 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): **18**
Number of buds per shoot at a depth greater than 10 cm (root buds included): **15**
Size of the belowground bud bank (root buds included): **38**
Depth of the belowground bud bank (root buds included) [cm]: **8**

Trophic mode

Parasitism and mycoheterotrophy: **autotrophic**
Carnivory: **non-carnivorous**
Symbiotic nitrogen fixation: **no nitrogen-fixing symbionts**



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Karyology



Chromosome number (2n): **20, 40**
Ploidy level (x): **2, 4**
2C genome size [Mbp]: **11571.69**
1Cx monoploid genome size [Mbp]: **2892.92**

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: **6 – transition between values 5 and 7**
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**



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**

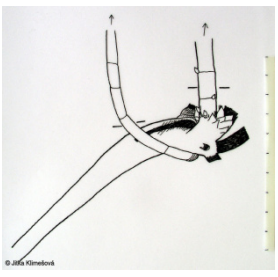
6 Meadows and mesic pastures

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**

Colonization ability

Index of colonization success (ICS): **7**
Index of colonization potential (ICP): **4**
Optimum successional age [years]: **28**









Distribution and frequency

Floristic zone: **boreal, northern temperate, southern temperate, submeridional, meridional**
Floristic region: **Europe, Western Siberia**
Distribution range extension along the continentality gradient: **6**

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: 658

taxon.data.freq_in_quad: 2360

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**









Threats and protection

Legal protection: **not protected by law**