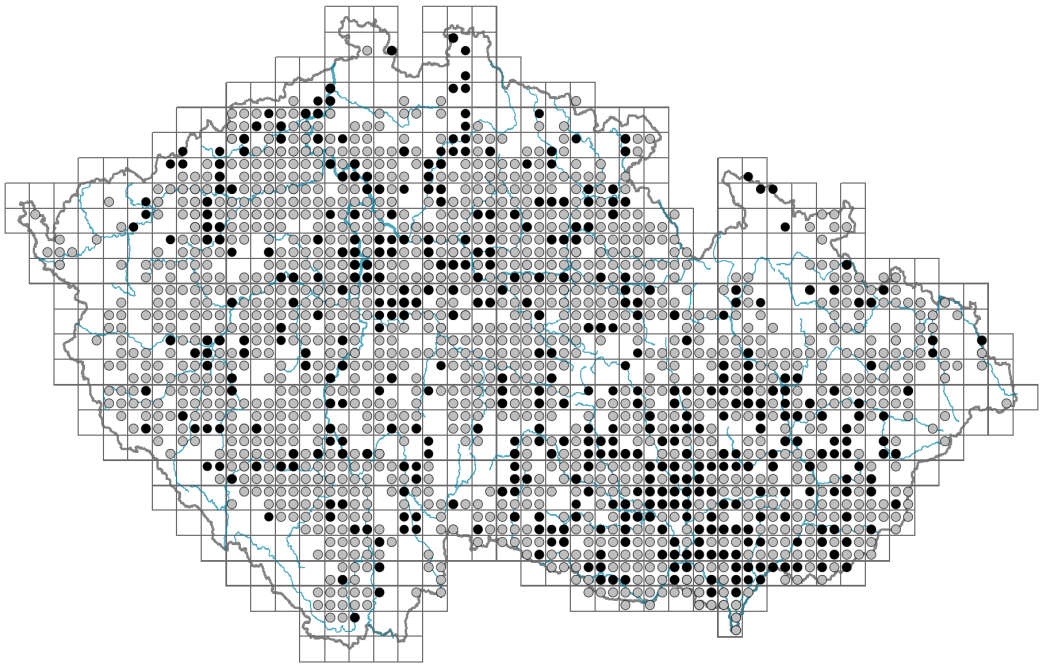
# *Ballota nigra*

## 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: **polycarpic perennial non-clonal herb**
Life form: **hemicryptophyte**
Life strategy: **C – competitor**
Life strategy (Pierce method based on leaf traits): **CSR**
Life strategy (Pierce method, C-score): **26.1 %**
Life strategy (Pierce method, S-score): **32.6 %**
Life strategy (Pierce method, R-score): **41.3 %**

### 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**

### Flower

Flowering period [month]: **June–August**

Flowering phase: **8 Clematis vitalba-Galium sylvaticum (mid-summer)**
Flower colour: **white, pink, pink-violet, red-violet, violet**
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: **gynomonoecious, gynodioecious**
Generative reproduction type: **mixed mating**
Pollination syndrome: **insect-pollination, selfing**
Pollinator spectrum: **honeybee, bumblebees (hoverflies, meat flies s. l., butterflies)**


## Fruit, seed and dispersal

Fruit type: **dry fruit – cluster of four one-seeded nutlets**
Fruit colour: **brown**
Reproduction type: **only by seed/spores**
Dispersal unit (diaspore): **fruit, infrutescence or its part**
Dispersal strategy: **Allium (mainly autochory)**
Myrmecochory: **probably non-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**
Branching type of stem-derived organs of clonal growth: **sympodial**
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): **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): **10**
Depth of the belowground bud bank (root buds exluded) [cm]: **3**
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): **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): **10**
Depth of the belowground bud bank (root buds included) [cm]: **3**


## Trophic mode

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

## Karyology

Chromosome number (2n): **20, 22**
Ploidy level (x): **2**
2C genome size [Mbp]: **2146.65**
1Cx monoploid genome size [Mbp]: **1073.33**

## Taxon origin

Origin in the Czech Republic: **archaeophyte**
Invasion status: **naturalized**
Geographic origin: **Europe, Mediterranean**

## 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: **5 – indicator of fresh soils, focus on soils of average moisture, missing on wet and on soils that frequently dry out**
Reaction indicator value: **7x – indicator of slightly acidic to slightly basic conditions, never occurring in very acidic conditions (generalist)**
Nutrient indicator value: **8 – pronounced nutrient indicator**
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: **-0.75**
Herb layer disturbance frequency indicator value: **-0.71**
Whole-community disturbance severity indicator value: **0.61**
Herb layer disturbance severity indicator value: **0.61**
Whole-community structure based disturbance indicator value: **0.41**
Herb layer structure-based disturbance indicator value: **0.42**

## 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**
1C Walls: **1 – rare occurrence**
1D Mobile calcareous screes: **1 – rare occurrence**

#### 4 Wetland and riverine herbaceous vegetation

4I Vegetation of nitrophilous annual hygrophilous herbs: **1 – rare occurrence**
4L Nitrophilous herbaceous fringes of lowland rivers: **1 – rare occurrence**

#### 6 Meadows and mesic pastures

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

#### 11 Heathlands and scrub

11L Tall mesic and xeric shrub: **2 – optimum**
11N Low xeric scrub: **1 – rare occurrence**
11R Scrub and pioneer woodland of forests clearings: **2 – optimum**

## 12 Forests

12B Alluvial forests: **1 – rare occurrence**
12C Oak-hornbeam forests: **1 – rare occurrence**
12D Ravine forests: **1 – rare occurrence**
12H Peri-Alpidic basiphilous thermophilous oak forests: **1 – rare occurrence**
12J Acidophilous thermophilous oak forests: **1 – rare occurrence**
12T Robinia pseudacacia plantations: **2 – optimum**
12U Plantations of broad-leaved non-native trees: **2 – optimum**
12V Spruce plantations: **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: **1 – rare occurrence**
13C Annual vegetation of trampled habitats: **1 – rare occurrence**
13D Perennial thermophilous ruderal vegetation: **2 – optimum**
13E Perennial nitrophilous herbaceous vegetation of mesic sites: **2 – optimum**
13F Herbaceous vegetation of forests clearings and Rubus scrub: **1 – rare occurrence**

## Diagnostic taxon

Diagnostic taxon of classes: **XC *Artemisietea vulgaris***
Diagnostic taxon of alliances: **KBD *Aegopodio podagrariae-Sambucion nigrae***, **KBE *Chelidonio majoris-Robinion pseudoacaciae***, **XCA *Onopordion acanthii***, **XCE *Arction lappae***
Diagnostic taxon of associations: **KBD01 *Sambucetum nigrae***, **KBD02 *Lycietum barbari***, **XBG12 *Ivaetum xanthiifoliae***, **XCA03 *Potentillo argenteae-Artemisietum absinthii***, **XCB11 *Asclepiadetum syriacae***, **XCE01 *Urtico urentis-Chenopodietum boni-henrici***, **XCE03 *Hyoscyamo nigri-Conietum maculati***, **XDD03 *Anthriscetum trichospermae***

## Constant taxon

Constant taxon of alliances: **KBD *Aegopodio podagrariae-Sambucion nigrae***, **XCA *Onopordion acanthii***, **XCE *Arction lappae***
Constant taxon of associations: **KBD01 *Sambucetum nigrae***, **KBD02 *Lycietum barbari***, **XBG02 *Chenopodietum urbici***, **XBG12 *Ivaetum xanthiifoliae***, **XCA03 *Potentillo argenteae-Artemisietum absinthii***, **XCB11 *Asclepiadetum syriacae***, **XCE01 *Urtico urentis-Chenopodietum boni-henrici***, **XCE03 *Hyoscyamo nigri-Conietum maculati***, **XDD03 *Anthriscetum trichospermae***

## Dominant taxon

Dominant taxon of associations: **XBH02 *Hordeo murini-Brometum sterilis***, **XCE01 *Urtico urentis-Chenopodietum boni-henrici***, **XCE02 *Arctietum lappae***, **XDD02 *Torilidetum japonicae***

## Ecological specialization indices

Ecological specialization index for all vegetation types: **4.2**
Ecological specialization index for non-forest vegetation: **4.3**
Ecological specialization index for forest vegetation: **4.8**

## Colonization ability

Index of colonization success (ICS): **6**

Index of colonization potential (ICP): **6**
Optimum successional age [years]: **19**

## Distribution and frequency

Floristic zone: **northern temperate, southern temperate, submeridional, meridional**
Floristic region: **Europe, Western Asia**
Distribution range extension along the continentality gradient: **5**
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: 551
taxon.data.freq_in_quad: 1631

### Commonness in vegetation plots from the Czech Republic

Occurrence frequency in vegetation plots: **2.5 %**
Occurrence frequency in vegetation plots with a cover above 5%: **22.3 %**
Occurrence frequency in vegetation plots with a cover above 25%: **8.2 %**
Occurrence frequency in vegetation plots with a cover above 50%: **2.8 %**
Mean percentage cover in vegetation plots: **7.5 %**
Maximum percentage cover in vegetation plots: **88 %**

### Number of habitats with taxon occurrence in the Czech Republic

Number of narrow habitats in which the taxon occurs: **25**
Number of narrow habitats in which the taxon has its optimum: **7**
Number of broad habitats in which the taxon occurs: **6**
Number of broad habitats in which the taxon has its optimum: **3**

## 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**