

VIROVITICA-PODRAVINA COUNTY

Nature's Poetry

Wild Flowers,
Dragonflies
and Butterflies



Dragonflies

1. THE HAIRY DRAGONFLY (*Brachytron pratense*) is characterised by the hairy chest, which differentiates it from similar species. It appears in early spring and its base colour is black, which is important in order for it to get warm more easily. The larvae grow up in stagnant and slow waters. After two years, they come out of the water and transform themselves into adult individuals. Adult individuals feed on insects that they catch flying.

2. THE BANDED DEMOISELLE (*Calopteryx splendens*) from the family of damselflies (*Calopterygidae*) is most common in Croatia. Its mouthparts are strong and adjusted for biting. On the head, it has short antennas and large eyes consisting of three parts. They often come in distinctive colours, sometimes even with metal glitter. They live along waters where the female lays eggs. The larvae living on the bottom of stagnant waters are major predators. They run on their strong feet and breathe with breathing gills at the end of the opisthosoma or in the rear intestine.



3. THE BEAUTIFUL DEMOISELLE (*Calopteryx virgo*) is the most common species of the family of damselflies (*Calopterygidae*) in Croatia along with the banded demoiselle. The mouth organs are strong and adjusted for biting. Apart from small differences in the appearance, it looks and acts very similarly to the banded demoiselle.

4. THE BROAD SCARLET (*Crocothemis erythraea*) stands out with its red colour of the body that differentiates it from the surrounding vegetation. It is 35-45 mm long and can be seen from May to September. It can be found in almost any larger stagnant water. When it gets tired from patrolling its area, it often comes back to the object or plant from which it took off. It is an excellent and fast flier, but due to its colour, it is very visible so that it often becomes prey for the greater predators.

5. THE COMMON CLUBTAIL (*Gomphus vulgatissimus*) Its natural habitats are clean and slow rivers and brooks with a sandy bottom. It can be seen in the south from mid-April until August. It does not live long after it comes out of the water as an adult individual. Males are black with wide yellow traces on the chest and stomach that become green as the insects age. Females are black with wide yellow marks. Adult individuals feed on insects and catch their prey in the air.

6. THE SCARCE CHASER (*Libellula fulva*) The adult male has a light blue stomach with black spots. It is approximately 45 mm long with an average wingspan of 74 mm. It is widespread in entire Europe. It is endangered due to the loss of habitats. This species lives on floodplains and swamps with dense and lush vegetation. Females lay their eggs in slow brooks. The larvae develop under the water, usually for two years. Adult individuals live from May to August and during that time they mate and lay eggs.



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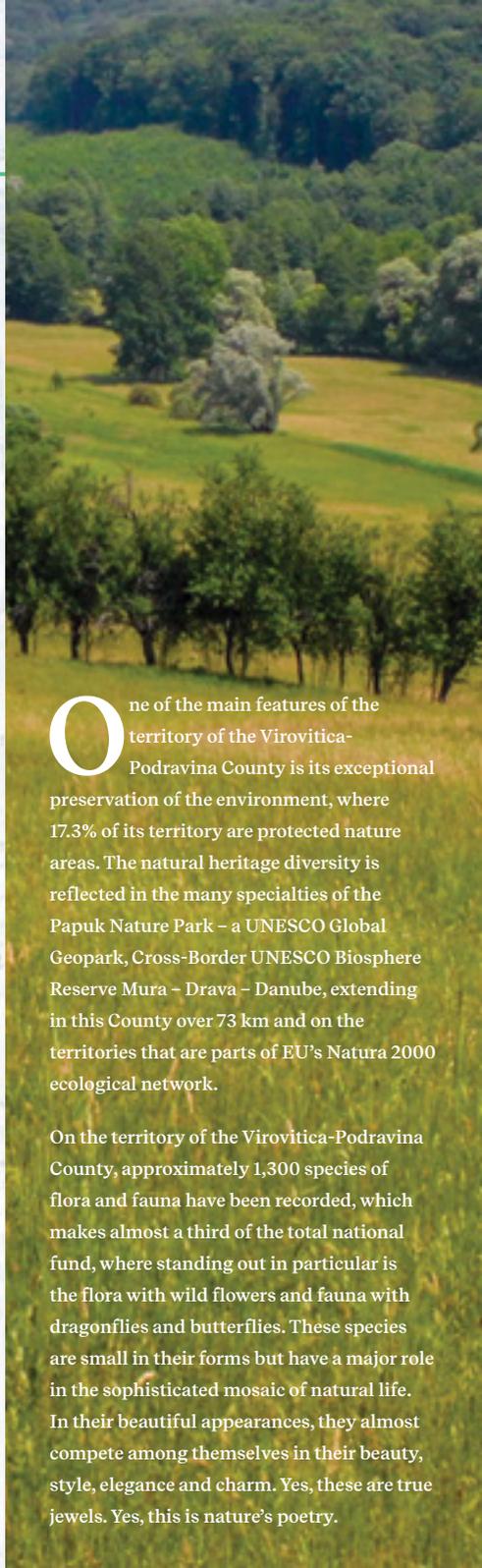
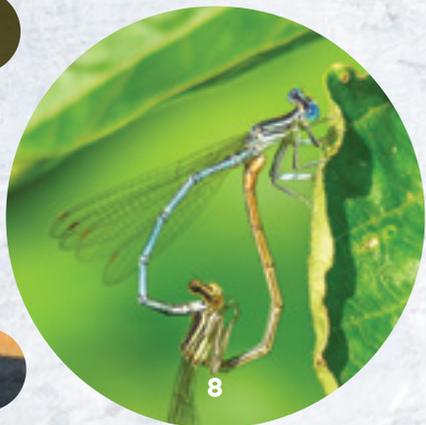
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7. THE GREEN SNAKETAIL (*Ophiogomphus cecilia*) is a frequent species in Europe. In Croatia, its presence is limited to the continental part. The habitat of the green snaketail are slow rivers with a sandy bottom where they position themselves most commonly on rocks or plants along the water. The destruction of large and slow lowland rivers, due to the construction of hydroaccumulation and hydro-technical interventions, are the most frequent causes that this species is endangered. The green snaketail grows up to 50-60 mm, of which 37-42 mm are the opisthosoma. They occur at the end of April, are most numerous in July and can fly until August.

8. THE WHITE-LEGGED DAMSELFLY (*Platycnemis pennipes*) The white-legged damselfly is one of the most widespread and most frequent dragonflies in Europe. The male is most often blue and can be easily recognised by its blue mark at the end of the opisthosoma. The female can be of different colours, from green and blue-green all the way to violet. Its size is 30-35 mm and it occurs from April to September. Its habitats are almost all larger swamps, wetlands or lakes, but also most flowing waters. They frequently appear in large numbers and most often rest on growing plants or along the water. They fly slowly just like all the other tiny waist dragonflies.



One of the main features of the territory of the Virovitica-Podravina County is its exceptional preservation of the environment, where 17.3% of its territory are protected nature areas. The natural heritage diversity is reflected in the many specialties of the Papuk Nature Park – a UNESCO Global Geopark, Cross-Border UNESCO Biosphere Reserve Mura – Drava – Danube, extending in this County over 73 km and on the territories that are parts of EU's Natura 2000 ecological network.

On the territory of the Virovitica-Podravina County, approximately 1,300 species of flora and fauna have been recorded, which makes almost a third of the total national fund, where standing out in particular is the flora with wild flowers and fauna with dragonflies and butterflies. These species are small in their forms but have a major role in the sophisticated mosaic of natural life. In their beautiful appearances, they almost compete among themselves in their beauty, style, elegance and charm. Yes, these are true jewels. Yes, this is nature's poetry.

Other Flowers

1. THE YELLOW ANEMONE (*Anemone ranunculoides*) is a spring flower whose blossoms usually have five yellow petals without sepals with many pistils and stamens. The leaves are elongated and of cut edges. The blossom starts already in March (before the forest starts producing leaves) and often lasts until May. When it is raining, it closes its petals in order to protect the gentle stamens and pistil against the weather. The fruit are one-seeded nuts. It multiplies through seeds and by cutting the rhizome. It survives the winter in the form of an underground stem (rhizome). It is protected by law. It grows in forests and parks.

2. THE MARSH MARIGOLD OR KINGCUP (*Caltha palustris*) is an exceptionally beautiful spring flower of swampy terrains, brook embankments, canals and rivers, moist meadows and pastures. Its large golden-yellow flowers are placed on long flower stalks. It blossoms from March to June. It is protected by law.



3. THE HEDGE BINDWEED (*Calystegia sepium*) is a perennial plant that is 100 to 300 cm tall. This is a white flowered creeper. Its leaves are in the shape of a triangle and egg, dull or pointed on the top. Its fruit is a pouch. It blossoms from June to September. It is a very frequent species that grows on moist meadows, gardens, along swamps and brooks. It is a nectariferous plant.

4. THE SNAKE'S HEAD FRITILLARY (*Fritillaria meleagris*) is a spring plant of purple flowers with lighter and darker chessboard patterns according to which it got its Croatian name (Kockavica). Since it is listed in the Red Book as a sensitive species (VU), *Fritillaria meleagris* is strictly protected. The main cause for it being endangered is the loss of the habitat due to direct negative human action (melioration, urbanisation, turning meadows into arable land or building land).



4. THE HOLY BLUE (*Celastrina argiolus*) is a butterfly from the blues family. Its wingspan is 3 to 3.5 cm. It populates moist wood patches, mostly the buckthorn. The caterpillar is approximately 2 cm long, green or brown with white spots and lines on the sides. It hibernates as a chrysalis.

5. THE SMALL HEATH (*Coenonympha pamphilus*) has ochre and yellow wings with a dark brown edge. At the top of the front wings, there is a small spot in the shape of a dark eye. The lower side of the front wings is ochre and yellow with a wide grey edge and a black spot in the shape of an eye. The rear wing is grey and brown towards the base, while towards the edges it is grey and white, with small and gentle white spots in the shape of an eye. It is widespread everywhere on lawns and pastures and is a very common species.

6. THE SHORT-TAILED CUPID (*Cupido argiades*)

The male has a violet upper side, with brown edges. Its wings have black spots, some of which have a soft white edge. The lower side of the wings is white or brown and grey. The antennae are black with white spots at the base.

The female has a dark

grey and blue upper side. The lower side of the wings is similar to that of the male. It is widespread on meadows and light forest habitats up to 1500 m of altitude. It can be seen from May to September. The caterpillars are fed mostly on legume vegetables.

7. THE SCARCE SWALLOWTAIL (*Iphiclides podalirius*) is a butterfly whose habitats are gardens, fields, open forest areas and in particular shrublands with a lot of blackthorn and orchards. It is widespread across Europe except in its northern parts. In Croatia, it is more present in the Mediterranean part. Its wingspan is from 6 to 8.5 cm. It hibernates as a chrysalis.

8. THE GLANVILLE FRITILLARY (*Melitaea cinxia*) lives in almost the entire

Europe. Its larvae are fed on the leaves of plantain and speedwell. It populates lawns

scarce in nutrients. The caterpillar is active already at the beginning of March. Adult butterflies are active between mid-May and the beginning of July. Due to the loss of habitats, it is a very endangered species.

9. THE CHAPMAN'S BLUE

(*Polyommatus thersites*) is widespread in central Croatia, in the basins of Kupa, in Primorje (Croatian Littoral) and Dalmatia. The upper side of the male's wings is of blue colour, while females are brown with orange marginal edge in the rear wings. The species is widespread in dry and warm stony habitats on a carbonate base and in various types of meadow habitats or deserted agricultural surfaces. Adult butterflies of the Chapman's blue appear in two generations per year, from April to June and from June to the end of September. This is one of the rare species in Croatia about whose biology we know very little. The species occurs in a small



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number of localities. The most important causes for the Chapman's blue being endangered are the isolation and fragmentation of the habitats due to intensive agricultural production.



10. THE PAINTED LADY (*Vanessa cardui*) is a splendidly coloured butterfly whose basic colour is orange with black surfaces and black and white spots. It is widespread on all the continents except for the Antarctic. It is present in all moderate zones including the mountainous areas of the tropics. It permanently inhabits only warmer areas. It is a migratory species and comes to Croatia from North Africa in May and June. The migrations of these butterflies take place in stages, often at high altitudes. During the migration, they can cross distances of more than 14,000 km.

Orchids

1. THE BUG ORCHID (*Anacamptis coriophora*) is a permanent herbaceous plant from the Orchid family and it grows to be up to 50 cm tall. The brown and purple flowers make a dense cylindrical blossom. The lower lip consists of three parts and is towards the interior of the blossom often spotted. The scent is rather unpleasant and reminds of rotten meat, which provides it with its specific pollinators. The leaves are elongated, smaller and enveloped around the stem. It grows on lawns from May to July, mostly in groups of several individuals. It is a strictly protected species.

2. THE LAX-FLOWERED ORCHID (*Anacamptis laxiflora*) is a permanent herbaceous plant from the Orchid family that grows to be up to 60 cm tall. Its blossoms are dark purple, lighter in the central part of the lower lip and even more expressed towards the interior of the blossom. The lower lip is folded backwards in the middle. Its leaves are upright and pointed. It blossoms on swampy meadows from May to July, often in a very large number of individuals that are sometimes grouped into densely packed communities consisting of several plants.

3. THE BOG ORCHID (*Anacamptis palustris*) is a permanent herbaceous plant from the Orchid family that grows to be up to 60 cm tall. Its flowers are light purple, lighter in the lower lip and covered with elongated purple lines and spots in the central part. The lower lip is wide and, as opposed to *A. laxiflora*, in the middle it is not particularly folded backwards but rather mildly bulging. The leaves are upright and

pointed. It blossoms on swampy meadows from June to July.

4. THE PYRAMIDAL ORCHID (*Anacamptis pyramidalis*) is a permanent herbaceous plant from the Orchid family that grows to be up to 60 cm tall even though its usual height is 20-30 cm. Its blossom is pyramidal in form and becomes cylindrical in the later stage. The flowers are pink and densely packed and of a pleasant scent. Its leaves envelop the stem at the base and are positioned alternately without any spots. Towards the upper part of the stem, they become more pointed. It blossoms from May to August on sunny meadows and along forest edges. It is protected by law.

5. THE WHITE HELLEBORINE

(*Cephalanthera damasonium*) is a permanent herbaceous plant from the Orchid family that grows to be 50 cm tall but most often it is 30 cm tall. The blossoms are white, slightly spaced along the stem and its interior is yellow. The leaves are



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positioned alternately and are of elliptic shape. It blossoms in May and June in deciduous forests, often at places where the forest is somewhat thinner and at its edges. It is a strictly protected species.

6. THE NARROW-LEAVED HELLEBORINE (*Cephalanthera longifolia*) is a permanent herbaceous plant from the Orchid family that is somewhat taller than the white helleborine and grows to be 60 cm tall but most often up to 30-40 cm. The blossoms are white, almost closed and randomly positioned. In the interior of the blossom, the yellow-coloured lower lip presents itself. The stem is slender with pointed and randomly positioned leaves. It grows in forests, bushes and on their edges in hilly areas. It is a strictly protected species.

7. THE COMMON SPOTTED ORCHID (*Dactylorhiza fuchsii*) is a permanent herbaceous plant from the Orchid family. Its blossom is light or dark violet, developed, with a wide three-part branchy lower lip and decorated with circular purple and violet patterns. The lower lip is elongated into the spur producing nectar



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for the pollinators. The perianth of the flower above makes a helmet. The leaves closer to the ground are collected into a rosette and are covered in brown spots. It grows in mixed forests and along their edges. It blossoms from May to July.

8. THE EARLY MARSH-ORCHID (*Dactylorhiza incarnata*) is a permanent herbaceous plant from the Orchid family that can be 20-80 cm tall. It has numerous flowers and its blossoms are often up to 15 cm long. The lower lip is jagged, lighter towards the interior with irregular and often spotted markings. The stem is firm and angular with alternating and elongated leaves, without any spots.



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It blossoms from May to July in swampy meadows. It is a strictly protected species.

9. THE EUROPEAN TERRESTRIAL ORCHID (*Neotinea ustulata*) is a permanent herbaceous plant from the Orchid family growing up to 30 cm. Fifty flowers comprise the pleasant honey fragranced blossom. The flower is cylindrical and lighter in the lower part, while upwards, where the flowers are more closed, it is dark red or purple. The lower lip has three explicit parts and is light, while in the middle of the flower it is covered in purple and red spots. The small flower looks very harmonious. Three to five leaves closer to the ground make a rosette and continue to the stem but are much smaller and envelop it entirely.



It blossoms from May to August on dry and moist meadows. It is a strictly protected species.

10. THE BIRD'S-NEST ORCHID (*Neottia nidus-avis*) is a permanent herbaceous plant from the Orchid family that grows to be up to 35 cm tall. Its flowers are small and brown and of a pleasant honey scent. The lower lip has two parts and is up to 1 cm long. The flower is cylindrical. This orchid is a saprophyte and lives in a symbiosis with a mushroom that provides it with food that it gets from the organic matter on the forest soil. It grows on humus rich soils in forests from May to June. It is a strictly protected species.

11. THE MILITARY ORCHID (*Orchis militaris*) is a permanent herbaceous plant from the Orchid family and it grows to be up to 40 cm tall. Its flowers are pale pink on the outside and they are pink and violet on the inside. The lower lip has three parts of a light violet base covered in purple hairs. The compacted flowers forming a dense blossom make this orchid very attractive and seemingly bigger than it actually is. Its leaves are elongated, elliptical and leathery and, on the stem, there are two leaves



enveloping it. It grows on meadows and in forest edges from May to June. It is a strictly protected species.



12. THE GREENWINGED ORCHID (*Orchis morio*) is a permanent herbaceous plant from the Orchid family and grows to be 10 to 50 cm tall. Its flowers are purple, red or pink but even white ones can be found. They comprise a cylindrical flower up to 8 cm tall. The lower lip is wide, narrow at the base and lighter in the middle, mostly with pronounced spots. It blossoms from March to May on sunny meadows, more seldom in light forests. It is widespread on the territory of entire Croatia and is one of our most common orchids.

13. THE ELEGANT ORCHID (*Orchis ovalis*) is a permanent herbaceous plant from the Orchid family. It grows to be up to 60 cm tall. The blossom is comprised of beautiful violet, red or pink flowers. The lower lip has three parts with a lighter central and upper part covered in darker spots. It grows on meadows both on plains and in mountainous parts and blossoms from April to July. This type of orchid is rather debatable and many have presented it as *O.*

mascula until recently. Its status has still not been entirely clarified because there are populations that differ morphologically and genetically. It is widespread mostly in Central and Eastern Europe. It is known today that on the territory of Italy and France *O. ovalis* genetically leans towards the *O. mascula* species, while on the territory of the Balkans it leans towards the *O. pinetorum* species. According to some authors, this species, due to its genetic and morphological differences, is probably not only one species but makes rather two or more species. Frequently the species that surround us look common to us but can be most precious and a challenge for scientists.



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14. THE LADY ORCHID (*Orchis purpurea*) is a permanent herbaceous plant from the Orchid family that grows up to 80 cm tall. The leaves are elliptical and up to 20 cm tall and 7 cm wide, the last leaves enveloping the stem. The scented flowers form elongated blossoms up to 23 cm long. The outer side of the flower is dark purple, while it is pale and green on the inside. The flower has a large white or light violet lower lip in the central part covered in violet hair. It blossoms on meadows and light forests in May and June. It is a strictly protected species.



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15. THE LESSER BUTTERFLY-ORCHID (*Platanthera bifolia*) is a permanent herbaceous plant from the Orchid family that grows to be up to 50 cm tall. Two leaves are highlighted at the bottom of the plant that are light green, wide, elliptical and oppositely positioned. Higher above the stem there are several small, narrow and pointed leaves. The flower is white with a light green spur. It is of an exceptionally pleasant and strong scent, which most usually makes us notice this species. This type blossoms from May to July, most often in deciduous forests but it can also be found on meadows. It is protected by law.

Other Flowers

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5. THE ST JOHN'S-WORT (*Hypericum perforatum*) is a perennial herbaceous plant with a woody rootstock from the wort family (*Hypericaceae*). The stem is upright and grows up to 80 centimetres. Its blossom is golden-yellow. The leaves are small, elongated and spear-like. It blossoms from June to September. It grows on sunny meadows, deserted lands, bushes and forest edges. The plant contains ethereal oils. It is a medicinal and nectariferous plant.

6. THE SIBERIAN IRIS (*Iris sibirica*) is a perennial herbaceous plant of 80 to 120 cm of height. Its slender and hollow shoots have three small leaves and most often three flowers associated in blossom. Its flowers are hermaphroditic, enveloped in two leaves that are dry and brown at the time of blossom. The perianth is of an intense violet colour and does not have the typical beard. It grows in swampy meadows, sunny areas and semi-shade. It is an endangered and strictly protected species.

7. THE SUMMER SNOWFLAKE (*Leucojum aestivum*) is a permanent herbaceous plant up to 60 cm tall. The stem is upright and without any leaves. It has bulbs. It features suspended, white flowers just like the snowdrop. It grows along forest edges and on swampy meadows. It is a protected species.

8. THE PERENNIAL FLAX (*Linum perenne*) is a permanent plant up to 90 cm high. It grows in meadows. Its flowers are of a pleasant blue colour. It has been known to man since ancient times. It is used in textile production and its seeds, apart from being a food, are used in obtaining quality oil.

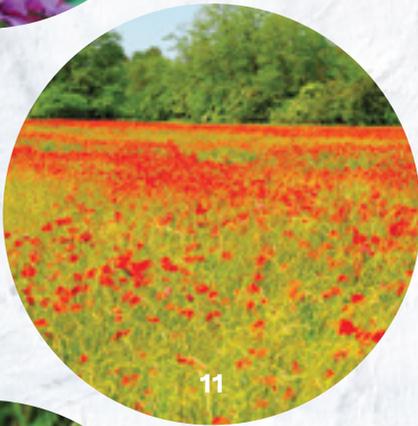




9. THE PURPLE LOOSESTRIFE (*Lythrum salicaria*) is a perennial plant up to 200 cm tall. Its root is thick and wooden. It features purple red flowers. It is a frequent species. It grows in moist and swampy habitats.

10. THE COMMON MALLOW (*Malva sylvestris*) is a branched perennial plant with a hairy stem up to 80 cm high. Its leaves are heart-shaped, alternating and like kidneys. Its flowers are comprised of five pale violet and pink petals streaked with dark stripes. It blossoms from June to September. It grows along paths and forest edges near human settlements. It is a medicinal and nectariferous plant.

11. THE RED POPPY (*Papaver rhoeas*) is an annual plant. It is from 25 to 90 cm tall. It features fire red flowers. It has a pouch containing many seeds. It blossoms from May to July. It grows in fields, ruderal habitats and meadows.



12. THE DOG ROSE (*Rosa canina*) is a perennial plant, a 2 - 3 m high bush with thorny branches. Its leaves are alternating, feather palmed and sharp edged. The flowers are pale pink and of a pleasant scent. Its fruit are red rosehips, approximately 2 cm long. Its content of vitamin C is very high (10 times as much as in lemon) as well as of B1, B2 and E. It blossoms from May to June, while the fruit ripens in September and October. It grows along sunny forest edges, bushes, fences, borders and paths.



13. THE COMMON COMFREY (*Symphytum officinalis*) is a perennial herbaceous medicinal plant growing up to 100 cm. The stem is upright, fleshy, hollow and coarsely hairy. Its root is long and branchy. The leaves are elongated, with pronounced veins on the lower side and also hairy. The flowers are violet and bell-like. It blossoms from May to July. It grows on moist meadows, along ditches and brooks.

14. THE COMMON MULLEINE (*Verbascum phlomoides*) is a biennial plant, from 50 to 200 cm tall. The stem is upright and overgrown with soft, thin and wooly hair. The flowers are large and yellow in groups from two to nine. It blossoms from July to September. It grows in sunny sandy places along paths, clearings, embankments and lawns. It is a nectariferous plant.

15. THE GEMANDER SPEEDWELL (*Veronica chamaedrys*) is a perennial plant, from 10 to 50 cm tall. Its flowers are blue, seldom pink or white. They are placed into loosely clustered blossoms. It blossoms from May to August. It grows on lawns and ruderal habitats.

16. THE WOOD VIOLET (*Viola odorata*) is a perennial plant with darkgreen and flat shoots, short hairs or naked with long and elongated, flat grapevines. Its leaves have a circular kidney shape or are wide and egg-like, with a heart-shaped base. Its violet, seldom white, flowers smell pleasantly. The spur is straight or somewhat bent and is of the same colour like petals. The fruit is a round pouch, with fine hairs, often violet in colour. It grows in light deciduous forests and bushes, along forest edges, in hedges, on river and brook embankments, along paths, in gardens and in parks. It is a protected species.



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