Likovna in vsebinska obravnava endemičnih in ogroženih rastlinskih vrst v Sloveniji

Illustrations and Descriptions of Endemic and Endangered Plant Species in Slovenia

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Uvod

V knjižici je z ilustracijami študentk ljubljanske Akademije za likovno umetnost **in opisi** študentov naravoslovnih smeri ljubljanske Biotehniške fakultete **predstavljenih 20 rastlinskih vrst.**

Gre za 20 posebnic, ki na tak ali drugačen način izstopajo iz pestre druščine rastlin, ki uspevajo v Sloveniji. Izbrane vrste predstavljajo endemne vrste ter rastline, ki so pri nas ogrožene ali zavarovane, poleg tega pa se lahko z njimi srečamo sredi glavnega mesta, v Botaničnem vrtu Univerze v Lubljani.

Endemiti so organizmi z omejenim, majhnim območjem razširjenosti.
Na tem območju oz. njegovem delu, kjer nek endemit uspeva, praviloma vladajo določene, za to območje značilne, ekološke razmere. Poleg tega mora biti tako območje od območja s podobnimi življenjskimi pogoji dovolj dobro ločeno. Prav tem razmeram na izoliranem območju se je uspela vrsta v evoluciji prilagoditi in je zato ne najdemo nikjer drugje na Zemlji.

Ker živa bitja ne poznajo političnih meja, ki smo jih ljudje zarisali vse povprek po planetu, bi bilo najbolj prav, če bi endemite povezovali z omejenimi naravno-geografskimi območji. Ker pa gremo težko iz svoje kože, pogosto govorimo o endemitih držav. Na uspevanje znotraj mej Slovenije je omejenih 22 vrst, med endemite, ki se pojavljajo tudi pri nas, pa skupaj štejemo 64 vrst.

Ogrožene vrste so vrste, ki jim zaradi takega ali drugačnega vzroka grozi izumrtje. Endemiti, na primer, so že zaradi majhnega območja, na katerem uspevajo, relativno bolj ogroženi od pogostejših oz. bolj razširjenih vrst.

Nekatere vrste imajo sicer veliko območje razširjenosti, ampak so njihove populacije maloštevilne, take pa so že same po sebi bolj dovzetne na spremembe v okolici.

Med ogrožene vrste spadajo tudi nekatere splošno razširjene, celo pogoste vrste, ki pa uspevajo na rastiščih oz. življenjskih prostorih, občutljivih zlasti na človekove posege. Ob takih spremembah lahko izumrejo celotne populacije. Pod najhujšim pritiskom so trenutno travniška, vodna in vlažna rastišča, prebivalke teh rastišč pa najbolj ogrožene.

Ko govorimo o ogroženosti, ne moremo in ne smemo mimo ekonomsko zanimivih vrst. Te lahko s pretiranim nabiranjem oz. izkoriščanjem pahnemo čez rob ... Največja težava pri izumrtju organizma je, da se ta v obliki in funkciji, kot ju poznamo danes, ne more več pojaviti na Zemlji in je za ekosistem izgubljen.

Zavarovane vrste pa so rastline, preko katerih se skuša med ljudmi dvigniti zavest o pomenu narave in spremeniti odnos do narave na bolje. Zavarovane so v glavnem potencialno gospodarsko zanimive vrste, ki pogosto niso neposredno ogrožene. Take so na primer okrasne rastline ali zdravilna zelišča.

Jošt Stergaršek

Foreword

The booklet presents 20 plant species through illustrations, made by students of the Academy of Fine Arts, **and descriptions**, written by students of natural sciences at the Biotechnical Faculty of Ljubljana.

These are 20 special species that in some way stand out from the wide range of other plants thriving in Slovenia. Selected species are endemic species as well as plants that are endangered or protected in there; some of them can even be found at the University Botanic Gardens Ljubljana, in the heart of Slovenia's capital city.
Endemic species are organisms with a limited and small habitat.

Such an area or a part of an area where an endemic species thrives, is usually governed by typical ecological conditions. Furthermore, this area has to be clearly separated from an area with similar living conditions. Through evolution, a certain endemic species has managed to adapt to this precise isolated location and it therefore cannot be found anywhere else on the Earth.

Since living beings do not know the political boundaries that humans have mapped all over our planet, it would be most appropriate to associate endemic species by their limited natural-geographic areas. But as we are set in our ways, we frequently talk about endemic species of a certain country. There are 22 species that grow only within the Slovene boundaries, and in addition to this, there are in total 64 other endemic species that can also be found in Slovenia.

Endangered species are those species that are for some reason threatened with extinction. Endemic species are due to their limited habitat relatively more endangered than those species that are more widespread.

Even though some species have a wide range of distribution, their populations are scarce and more susceptible to the changes in the environment.
Endangered species also include some spices that are widespread or even common, but they grow in habitats that are especially sensitive for human intervention. Such interventions can cause the extinction of an entire population. A lot of changes currently occur in meadows and wetlands, so populations living there are most at risk.

When talking about endangered species, we cannot and should not neglect the species that are interesting for economical reasons. These can become extinct because of excessive picking and exploiting. The biggest problem with the extinction of an organism is that it can no longer appear on the Earth in any shape or function known to us today, and is therefore lost for the entire ecosystem.

With protected species we try to raise awareness about the importance of nature and make a positive change in people's attitude towards the nature. Protected plants are mainly potentially economically attractive species that are often not directly threatened, for example ornamental plants and medicinal herbs.

Jošt Stergašek


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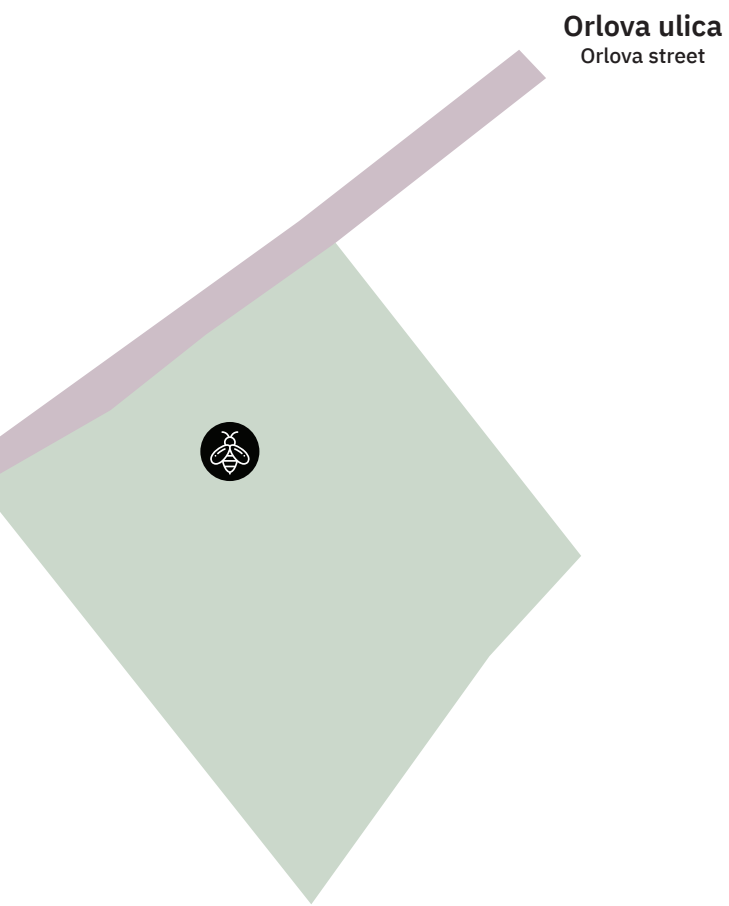

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Alpska možina

ALPINE SEA HOLLY, ALPINE ERYINGO, QUEEN OF THE ALPS

(Eryngium alpinum L.*)*

Ilustracija: Sanja Zamuda

Alpska možina spada v družino kobulnic, ki imajo značilna kobulasta socvetja. V višino zraste do 80 cm. Cvetovi so sedeči in ne na pecljih, kot je to običajno, zato imajo socvetja valjasto obliko. Listi ogrinjala so drobno deljeni. Pritlični listi so dolgopecljati, nedeljeni in neenakomerno nažagani. Stebelni listi so proti vrhu stebla vedno bolj nazobčani. Ko rastlina zori, listi in socvetje postajajo temno vijolični – barvo ohranijo še po tem, ko se rastlina že posuši.

Čas cvetenja: Cveti med julijem in septembrom.

Rastišče: Kraljica planin, alpska možina, raste na kamnitih apnenčastih tratah v subalpskem in alpskem pasu do višine 2000 m.

Razširjenost v Sloveniji: Na zelo omejenih nahajališčih na Črni prsti v Julijskih Alpah, v Karavankah in na Poreznu je bila nekoč pogosta, danes pa je že skoraj izginila, razen na Poreznu, kjer je še vedno zelo bogato nahajališče.

Ogroženost: Ker je alpska možina zelo redka, je privlačna za nabiralce. Poleg pretiranega nabiranja je ogrožena tudi zaradi nenehnega krčenja habitata in poseganja v njeno naravno okolje npr. s prekomerno pašo ali zaraščanjem. To se je izkazalo na Poreznu, kjer je po ponovni uvedbi občasne paše populacija narasla. Alpska možina je vrsta, ki jo moramo varovati.

Zanimivost: Nekoč so verjeli, da korenina te alpske kraljice prinaša srečo v ljubezni. Imenovali pa so jo tudi zaspanka in jo dajali otrokom v zibko, da bi lažje zaspali.

Alpine eryingo (also known as alpine sea holly or queen of the Alps) belongs to the *Umbelliferae* family which is known for its distinctive umbels. It grows up to 80 cm in height. Unlike the main type of inflorescence found in *Umbelliferae*, the flowers are sessile, stalkless and crowded in a dense head, shaped like a cylinder. The covering leaves (involucre) are dissected. The whorled unifoliolate leaves have long stalks and are irregularly serrated. Towards the top of the stem, the stem leaves get more and more serrated. When the flower produces its fruit, the leaves and inflorescence turn dark purple. This colour remains even after the plant already dries out.

Flowering time: July–September

Habitat: Alpine eryingo or queen of the Alps is found in subalpine and alpine meadows (with limestone soil) up to an altitude of 2000 m.

Distribution in Slovenia: Once it could be easily found at some locations in the Julian Alps (Črna Prst), the Karavanks and Mount Porezen. Nowadays, it has almost disappeared as it can be found only on Mount Porezen where there is still a strong plant population.

Endangerment: Alpine eryingo is very rare so people like to pick it. In addition to picking, it is also endangered due to continuous habitat destruction and human interference with its natural environment, for example in the form of excessive grazing and overgrowing. The latter was the case on Mount Porezen where the plant population grew with the reintroduction of occasional grazing. Alpine eryingo has to be protected as it is a rare species.

Interesting fact: People used to believe that the root of this plant brings happiness in love. In Slovene, it was also known by the name *zaspanka* (sleepyhead) as it was placed into a cradle to help babies fall asleep.

Clusijev svišč

GENTIANA CLUSII

(Gentiana clusii Perr. & Song.*)*

Ilustracija: Teja Milavec

Clusijev svišč je trajnica, visoka od 5 do 10 cm, s kratko koreniko. Najpogosteje ga srečamo v visokogorju. Njegovi na otip usnjati listi so zimzeleni. Pritlični listi so eliptični in oblikujejo izrazito rozeto. Par stebelnih listov je nasprotno razvrščenih. Temno modri cvetovi so dolgi od 5 do 6 cm. Venčni listi so med seboj zrasli v stožčasto cev. Čašni zobci so pokončni, prilegli k vencu, trikotne oblike ter najširši pri dnu. Steblo se po cvetenju podaljša za približno 10 cm.

Čas cvetenja: Cveti med majem in julijem.
Rastišče: Travišča, pašniki, kamnite trate in skalne razpoke. Uspeva na apnenčasti podlagi.
Razširjenost v Sloveniji: Pogost je v Julijskih, Kamniško-Savinjskih Alpah in Karavankah, Ratitovcu, Snežniku, v Trnovskem gozdu, kot ledenodobni ostanek tudi ponekod v predgorju (Kopitnik, Lovrenc pri Lisci) in redek na Poreznu.
Ogroženost: Zaradi priljubljenosti in lepega izgleda je bil včasih mnogo bolj ogrožen kot danes, saj so ga množice planincev nabirale, ker ni smel manjkati v klasičnem »planinskem« šopku. Dandanes je trganja manj, je pa bolj pogosto na zunajalpskih rastiščih, ki so lažje dostopna. Svišč tudi ne uspeva na obilno gnojenih tleh.
Zanimivost: Clusijev svišč sodi med najbolj prepoznavne (zavarovane!) gorske rastline in je sestavni del klasičnega planinskega šopka: encijan, planika, murka, sleč. Njegov sloves se širi tudi z Avsenikovo pesmijo: »Tam, kjer encijan plav je ves prešerno bahav, nežno vabi.«

Gentiana clusii is a perennial that grows between 5 to 10 cm and has a short root. It is most fre-quently found in high mountains. Its leaves are evergreen and feel leathery to touch. The leaves that form near the ground are oval-shaped and arranged in a rosette, while the arrangement of the leaves on the stem is alternate. The dark blue flowers are between 5 to 6 cm long. The petals form a tube-shaped corolla. The claws attached to the corolla are triangular and wider at the bottom. Af-ter blooming, the stem becomes for about 10 cm longer.

Flowering time: May–July
Habitat: It thrives in meadows, pastures, stony soil and rock cracks. It prefers limestone areas.
Distribution in Slovenia: It is common in the Julian Alps, the Kamnik-Savinja Alps, the Karavanks, Ratitovec, Snežnik and in the Trnovo Forest Plateau. It can also be found at some locations in the Al-pine foothills (Kopitnik, Lovrenc pri Lisici) and rare on Porezen.
Endangerment: Due to its popularity and beautiful appearance, it used to be more endangered than it is today. Nu-merous mountaineers picked it because it was an essential part of a typical “mountain” bouquet. Nowadays, the picking has diminished, but it is still frequent at non-alpine locations that are easily reached. It also does not thrive in soils that are overly fertilised.
Interesting fact: Gentiana clusii, one of the most famous (and protected) mountain plants, is an essential part of a typical mountain bouquet: Gentiana clusii, edelweiss, nigiritella and alpenrose. It is also mentioned in one of Slovene songs by Slavko Avsenik.

Črničevje

ČRNI HRAST, ČRNIČEVJE, ČRNIKA

EVERGREEN OAK, HOLLY OAK, HOLM OAK

(Quercus ilex L.*)*

Ilustracija: Marina Gabor

Črničevje, črni hrast ali tudi črnika je drevesni predstavnik ogroženih rastlin slovenske Istre. Črničevje je tudi edina vednozelena vrsta hrasta pri nas, njegovi listi jeseni ne odpadejo. Drevo lahko doseže velikost do 25 m, vendar se zaradi neugodnih rastišč pri nas pojavlja večinoma v obliki grma. Krošnja je ovalna in gosta. Skorja je sive barve, pri mladih rastlinah gladka, pri starejših pa je razpokana v majhne, kvadratne luske, nikoli pa ni oplutenela. Vedno zeleni listi so na otip usnjati. Zgoraj so goli in zeleni, spodaj pa gostodlakavi in zato sivi. Pri mladih rastlinah je listni rob narezan in ima bolj ostre zobce kot pri starejših, ki imajo celorobo listno ploskev. Celo na isti rastlini lahko najdemo različno oblikovane liste. Prilagojeni so močnemu sončnem sevanju in s tem povezani suši. Črničevje je enodomna rastlina, moški cvetovi imajo obliko mačic, ženski pa so posamični ali po dva skupaj. Na kratkem peclju v zalistju se nato razvije skledica in v njej podolgovat želod, ki dozori jeseni.

Čas cvetenja: Cveti med aprilom in majem.
Rastišče: Prisojno apnenčasto skalovje, v obmorskih predelih pogosto sajeno.
Razširjenost v Sloveniji: Visokokraške planote (Sabotin, Nanos), apnenčasta rastišča v dolini Dragonje (Stena, Sv. Štefan), Kraški rob (Osp, Podpeč).
Ogroženost: V Sredozemlju sestavlja to drevo vednozelene gozdove. Pri nas pa je redkejše, saj Slovenija predstavlja njegovo severno mejo, kjer še uspeva. Črničevje zaenkrat ni ogrožena rastlinska vrsta.
Zanimivost: Hrast v Portorožu je najmogočnejši te vrste v Sloveniji, saj je v malo več kot sto letih zrasel do višine približno 15 metrov, obseg njegovega debla pa je 3,7 metra.

Evergreen oak is tree species that is listed as endangered species in Slovene Istria. It is also the only Slovene oak species that is evergreen as its leaves do not fall of in autumn. The tree can grow up to 25 m, but due to unfavourable conditions in Istria, it appears mostly in the form of shrubs. The treetop is oval and dense. The grey tree bark is smooth when the plant is still young, but when the tree is older, it cracks into small square-shaped scales although it never turns into cork. The evergreen leaves feel leathery to touch. The upper leaf surface is bare and green, while the other side is grey because of small hairs. The leaf margins are entire, but on young trees, they are more or less remotely toothed. Different-shaped leaves can be found even on the same plant. Leaves are adapted to strong sun exposure and drought. Evergreen oak is a monoecious plant – the male flowers occur in the form of catkins, while the female flowers are single or in twos. Later on, a cupule develops on a short stalk and in it, an elongated acorn which ripens in autumn.

Flowering time: April–May
Habitat: It thrives in limestone rocks, exposed to the sun. It is often planted in seaside areas.
Distribution in Slovenia: In Slovenia, it can be found in the high Karst plateaus (Sabotin, Nanos), limestone areas in the Dragonja valley (Stena, Sv. Štefan) and in the Kraški Rob area (Osp, Podpeč).
Endangerment: In the Mediterranean, this tree forms evergreen forests. In Slovenia, however, it is less common as this area represents the northern border of its habitat. Because the plant itself and its habitat are not particularly interesting for people, it is not considered endangered.
Interesting fact: The evergreen oak in Portorož is the largest one in Slovenia. In a little over than a hundred years, it has grown up to 15 m and its trunk is 3.7 m in girth.

Justinova zvončica

CAMPANULA JUSTINIANA

(Campanula justiniana Witasek*)*

Ilustracija: Metka Kladnik

Justinova zvončica je trajnica, ki iz svojega podzemnega dela požene številna pokončna stebelca. Ta so nežna in praviloma gola. Stebelni listi so na steblu razvrščeni spiralasto in so jajčaste do suličaste oblike. Spodnji listi so dolgopecljati, njihov listni rob pa je nazobčan z nekaj ostrimi zobci. Zgornji stebelni listi so celorobi in zelo ozki – črtalasti. Na vrhu vsakega stebelca se odpre en sam zvonast cvet, ki je vijolično modre barve in je dolg okoli 1,5 cm. Cvetni popki so pokončni, ko pa se zvonast cvet med julijem in septembrom razpre, se cvetni pecelj upogne navzdol. Za cvet so značilni pravokotno vstran ali nazaj štrleči nitasti čašni listi.

Čas cvetenja: Cveti med julijem in septembrom.

Rastišče: Skalnata in grmovna mesta dinarskega, preddinarskega in submediteranskega sveta.

Razširjenost v Sloveniji: Območje razširjenosti justinove zvončice obsega Visoki kras (od Pivke do reke Reke na zahodu in do Kočevske na vzhodu). Nekoliko bolj odmaknjena nahajališča so tudi na Učki, Vremščici, Nanosu in v Škocjanskih jamah, ki je njeno klasično nahajališče.

Ogroženost: Kljub zelo omejenemu območju razširjenosti Justinova zvončica ni neposredno ogrožena, saj ta vrsta in njena rastišča niso ekonomsko zanimiva za človeka, poleg tega pa so tudi razmeroma nedostopna.

Zanimivost: Dunajska rastlinoslovka Johanna Witasek je zvončico poimenovala po svojem učitelju Rajku Justinu (1865–1938), ki je po prvi svetovni vojni deloval tudi v botaničnem vrtu ljubljanske univerze. Justin je na mnogih ekskurzijah, zlasti v okolici krajev, v katerih je učiteljeval, zbral veliko herbarijsko zbirko in jo z zamenjevalno dejavnostjo obogatil tudi z rastlinami iz tujih krajev. V nekem obdobju je vzbujal pozornost, ker je vsak dan pripešačil iz Ljubljane na Šmarno goro in nazaj. Bil je neutruden hodec in gornik. Pri svojih 73 letih je med povratkom s Triglava nedaleč od vrha omahnil v smrt.

Campanula justiniana is a perennial that sprouts several upright stems from its underground part. The stems are delicate and usually naked. The stem leaves are whorled and oval to lanceolate shaped. The lower leaves with a toothed leaf margin have long stalks. The upper leaves are very narrow and linear with an entire leaf margin. The top of each stem bears a single bell-shaped flower that is of purple to blue colour and 1.5 cm long. The flower buds are positioned upwards, but when the bell flower opens between July and September, the flower stalk bends downwards. The flower is characterised by petals that are positioned backwards or perpendicular to the side.

Flowering time: July–September

Habitat: Rocky locations and shrublands in the Dinaric, pre-Dinaric and sub-Mediterranean areas.

Distribution in Slovenia: It can be found in the high karst plateaus (from Pivka to the Reka in the west and to the Kočevje area in the east). More remote locations where it thrives are on the Učka mountain range, Mount Vremščica, the Nanos plateau and in the Škocjan Caves where it is its typical habitat.

Endangerment: Despite its limited distribution, the plant is not directly endangered as this species and its habitat is not economically interesting to humans. Its habitat is also relatively inaccessible.

Interesting fact: The Austrian botanist, Johanna Witasek, named the Campanula justiniana after her teacher Rajko Justin (1865–1938) who worked at the University of Ljubljana after the First World War. On numer-ous excursions near the places where he taught, Justin gathered a large herbarium which he later enriched with plants from foreign places. In a certain period, people were fascinated by him as he walked from Ljubljana to Mount Saint Mary and back every day. He was a passionate hiker and mountaineer. When he was 73, he died while climbing Triglav, the highest peak of Slovenia.

Juvanov netresk

SEMPERVIVUM JUVANII

(Sempervivum juvanii Strgar*)*

Ilustracija: Sanja Zamuda

Juvanov netresk je trajnica iz družine tolstičevk. Zanj so značilni mesnati listi, ki so pri dnu združeni v listno rožico – rozeto. V času cvetenja požene mesnato steblo. Netreski se lahko razmnožujejo tudi nespolno s stoloni. To so preobražena stebla, ki se kot živice vijejo po tleh. Iz kolenc poženejo korenine in iz njih vzbrstijo nove rastline. Na ta način okrog materinske rastline nastanejo večje skupine, prava netreskova »naselja«, ki prekrijejo vso površino, povezave s stoloni pa se s samostojnostjo mlade rastline prekinejo. V Sloveniji uspevata dve vrsti – pogosti navadni netresk (*Sepervivum tectorum*) z rožnatimi cvetovi in zelo redek juvanov netresk (*Sempervivum juvanii*) z rumenimi cvetovi in žlezasto dlakavimi listi.

Čas cvetenja: Cveti med julijem in avgustom.

Rastišče: Skalne razpoke v montanskem pasu; prisojne lege. Navadni netresk je pogosto zasajen na grobovih, vrtovih in strehah.

Razširjenost v Sloveniji: Navadni netresk uspeva na primernih rastiščih po vsej Sloveniji, juvanov netresk pa je omejen le na Donačko goro in bližnji Resnik.

Ogroženost: Predstavnika tega rodu sta privlačna za gojenje v skalnjakih in posodah, zato sta ogrožena (zlasti Juvanov netresk) predvsem zaradi pretirane uporabe v hortikulturne namene. Možna je tudi zamenjava s sorodnimi netreskovci, zato sta zavarovana oba rodova.

Zanimivost: Netreski so zelo trdožive rastline, na kar opozarja že ime rodu (*Sempervivum* = vedno živ). Mesnata zgradba listov in stebla uspešno zadržuje vodo. Listni sokovi vsebujejo tudi antibiotične snovi, zato je rastlina znano ljudsko zdravilo za blažja vnetja. Od tu izhaja tudi eno od številnih imen za netresk: uhec, ušenik, uhovnik. Ime netresk pa izvira iz prepričanja, da je manj verjetno, da bo v slamnato streho udarila strela, če je porasla z netreskom. Z netreskom je povezano še eno ime: perunovo cvetje po staroslovanskem bogu Perunu.

***Sempervivum juvanii* (houseleek, thunderplant) is a perennial plant belonging to the houseleeks family. It has distinctive fleshy leaves that form a tight rosette near the ground. During flowering time, the plant produces a fleshy stem. It can propagate asexually with stolons which are transformed stems that form roots at the nodes and new plants from the buds. In this way, a group of plants forms around the mother plant creating houseleek "communities" that cover the surface. Stolons detach from the mother plant when the new plant is ready to produce its own offsets. Two species of houseleek thrive in Slovenia – the common houseleek *(Sepervivum tectorum)* with pink flowers and the very rare *Sempervivum juvanii* with yellow flowers and leaves covered with hairs.**

Flowering time: July–August

Habitat: It thrives in rock cracks in the montane zones in sunny locations. Common housleek is frequently planted on garves and roofs as well as in gardens.

Distribution in Slovenia: *Sepervivum tectorum* can be found throughout Slovenia, while *Sempervivum juvanii* is limited to Mount Saint Donatus and Resnik.

Endangerment: These two species of the houseleek family are commonly planted in rock gardens so they are mainly endangered due to excessive use in horticulture (especially *Sempervivum juvanii*). They can be mistaken for other houseleeks so both species are protected.

Interesting fact: Houseleeks are very enduring which is also denoted by their name (*Sempervivum* = always alive). Due to their fleshy stem and leaf structure, they successfully hold water. Leaf juices contain antibiotic elements because of which the plant is known as a remedy for mild inflammations. Its name thunderplant derives from the belief that a straw roof is less likely to be struck by lighting if it is covered with houseleek. Another name is connected to the god Perun which is known as god of thunder and lightning in Slavic mythology.

Kobulasta vodoljuba

FLOWERING RUSH, GRASS RUSH

(Butomus umbellatus L.*)*

Ilustracija: Teja Milavec

Kobulasta vodoljuba je trajna močvirska rastlina, ki v višino ponavadi zraste do 1,5 m. Listi, ki pri stebelnem dnu obdajajo steblo, so prizemeljski, ozki, v prerezu trikotni, odebeljeni ter dolgi do 1 m. V času cvetenja se razvijejo trištevni dvospolni bledo rožnati cvetovi, ki so združeni v kobulasto socvetje. Rastlina se razmnožuje spolno, s semeni.

Čas cvetenja: Cveti med majem in avgustom.

Rastišče: Kobulasta vodoljuba je danes razširjena na območju Evrope in Azije, kot dekorativna rastlina je bila prinesena tudi v Severno Ameriko. Ponekod velja za invazivno rastlino (na Kanadski meji z Ameriko). Za svojo rast potrebuje prst z nevtralnim pH in veliko sonca, čeprav uspeva tudi v polsenci. Raste predvsem v stoječih vodah, plitkih potokih in močvirjih.

Razširjenost v Sloveniji: Pri nas jo najdemo v nižinah, na Notranjskem, v okolici Ljubljane ter ob Dravi in Muri.

Ogroženost: Prilagoditev na močvirje in vodno okolje je ne more rešiti pred velikopoteznim človeškim delovanjem in globokim poseganjem v njen habitat, ki se zaradi izsuševanja krči. Zaradi tega pri nas sodi med ogrožene rastline. Njena lepota in privlačnost pa sta jo uvrstili tudi med zavarovane rastline.

Zanimivost: Uspeva tudi v razmerah na presihajočem jezeru tako, da se s spremenjeno morfologijo prilagaja spremenjenim okoliščinam. To ji omogoča rast tako spomladi, ko je popolnoma zalita z vodo, kot avgusta, ko ostane na suhem. Zaradi te lastnosti ji pravimo amfibijska rastlina. Zaradi svoje okrasne vrednosti se jo danes veliko uporablja v hortikulturne namene.

The flowering rush is a perennial aquatic plant that usually grows up to 1.5 m in height. Its linear leaves that surround the bottom of the stem can be up to 1 m long and are triangular in transverse section. Bisexual pale pink flowers develop during the flowering time and consist of many white petals and stamens. The plant propagates with seeds.

Flowering time: May–August

Habitat: The flowering rush is widespread in Europe and Asia and was introduced into North America as an ornamental plant. In some parts, it became an invasive species (the Canada-United States border). To thrive it needs pH-neutral soil and a lot of sunlight, but it also grows in partial shade. It grows primarily in surface waters, shallow streams and swamps.

Distribution in Slovenia: In Slovenia, it can be found in lowlands, the Notranjska region, near Ljubljana as well as near the Drava and the Mura rivers.

Endangerment: Its adaptation to swamps and aquatic environments does not save it from enormous human interference in its habitat which is getting destroyed due to desiccation. For this reason, it is considered an endangered species in Slovenia. Because of its attractive appearance, it was also listed among the protected plant species.

Interesting fact: The flowering rush can also thrive in intermittent lakes. Its changing morphology helps it adapt to different conditions so it can grow in spring when it is completely covered in water as well as in august when the lake is dry. For this reason, it is called an amphibian plant. Today it is widely used in horticulture because of its decorative value.

Kranjska lilija

CARNOLIAN LILY, GOLDEN APPLE

(Lilium carniolicum Bernh.*)*

Ilustracija: Sanja Zamuda

Kranjska lilija je zelnata trajnica, visoka do 1 m, z jajčasto čebulico v velikosti do 6 cm. Cvetovi so posamični po dva na vsaki strani ali celo v grozdu na vrhnjem delu stebla, dvospolni, oranžni ali rdečeoranžni, z nazaj zavihanimi cvetnimi listi, ki so pri dnu črnopikasti. Pri poimenovanju je prevladala podobnost z jabolkom, saj je eno od starih slovenskih imen za kranjsko lilijo zlato jabolko.

Čas cvetenja: Cveti med majem in julijem (na višje ležečih rastiščih tudi kasneje).
Rastišče: Travniki, porasla melišča, svetli gozdovi in grmovje.
Razširjenost v Sloveniji: Po vsej Sloveniji. Kranjska lilija je pogostejša v alpskem, predalpskem in dinarskem svetu.
Ogroženost: Lilije so delno ogrožene zaradi nabiranja, saj so zelo privlačne. Iz istega razloga jih tudi odvzemajo iz narave zaradi gojenja in komercialnega žlahtnjenja. Predvsem brstična in kranjska lilija sta ogroženi tudi zaradi zaraščanja.
Zanimivost: Lilije so pomembne tudi v cvetlični simboliki. Po starogrškem mitu naj bi zrasle iz kapljic Herinega mleka, ko je dojila Herkula. Krščanstvo je iz poganstva prevzelo lilijo kot simbol čistosti in nedolžnosti, hebrejski izraz za lilijo šušan pa je osnova imena za biblične Suzane. Z lilijami so pogosto upodobljeni Marija, Jožef, sv. Alojzij in sv. Anton. Lilije so tudi spremljevalke na pogrebih, ker naj bi duši po smrti obnovile nedolžnost.

Carnolian lily is a green perennial that grows up to 1 m. Its bulbs can be up to 6 cm big. The bisexual flowers are singular, positioned in twos or more at the end of the stem. Its upturned petals are orange or orange-red with black dots at the bottom. One of the old names for the plant is golden apple due to its apple-like appearance.

Flowering time: May–July (or later in higher altitudes)
Habitat: It thrives in meadows, overgrown screes, bright forests and among shrubs.
Distribution in Slovenia: Carniolan lily is widespread throughout Slovenia, but is more common in alpine, prealpine and dinaric regions.
Endangerment: Its attractive appearance makes it partially endangered because of excessive picking. For the same reason, it is also frequently dug up for growing in gardens and commercial plant breeding. Carnolian lily as well as orange lily are endangered also due to overgrowing of their habitats.
Interesting fact: Lilies are interesting because of their symbolism. According to an ancient Greek myth, they have grown from the drops of milk of the Greek goddess Hera when she was breastfeeding Heracles. Christianity introduced lily from paganism as a symbol of purity and innocence, the Hebrew expression for the plant is the basis for the biblical name Susan, while lilies are often portrayed with St. Mary, St. Joseph, St. Aloysius and St. Anthony. Lilies are also common at funerals as it is believed that they renew the soul's innocence after death.

Kranjski jeglič

PRIMULA CARNIOLICA

(Primula carniolica Jacq.*)*

Ilustracija: Teja Milavec

Kranjski jeglič po cvetovih spominja na trobentico, le da so cvetovi pri kranjskem jegliču vijolične barve in se nahajajo na steblu v mnogocvetnem socvetju, redko posamični. Steblo je visoko od 5 do 25 cm. Venec je vijoličen. Zeleni deli rastline pa so brez žleznih laskov in moknatega poprha. Je prava kranjska rastlina, kot se spodobi glede na njeno ime. Ima zelo omejeno razširjenost v pasu, ki je dolg 70 km in širok približno 25 km. Je torej endemična rastlina in ena redkih, ki uspevajo samo v Sloveniji in nikjer drugje na svetu.

Čas cvetenja: Cveti med aprilom in majem (na višje ležečih rastiščih tudi kasneje).
Rastišče: Vlažne skalne razpoke, trate in kamniti bukovi gozdovi.
Razširjenost v Sloveniji: Od doline Trebuše do Roba na Notranjskem (okolica Idrije, Slivnica, Borovniški Pekel, Iški Vintgar).
Ogroženost: Kranjski jeglič je ogrožen, saj uspeva samo na določenih rastiščih v Sloveniji, neposredno ga ogrožajo tudi naši in tuji zbiratelji redkih vrst. Zato je na predlog Slovenije uvrščen na prilogi 2. in 4. Direktive o habitatih. Ohranjamo ga predvsem z varovanjem nahajališč, ki so vključena v omrežje Natura 2000.
Zanimivost: Zanimivo je, da se je s tem endemitom srečal že A. Scopoli, zdravnik in naravoslovec, ki je med letoma 1754 in 1769 služboval v Idriji kot prvi rudniški zdravnik. Scopoli žal ni prepoznal jegliča kot kranjskega, tega je prvi opisal dunajski botanik N. J. Jacquin leta 1778. Čeprav je Scopoli zapisal, da ta jeglič raste v okolici Divjega jezera blizu Idrije, kjer ga lahko najdemo še danes, je Jacquin poročal, da naj bi rasel v kranjskih Alpah. Kranjskega jegliča (*Primula carniolica*) v Alpah kljub vsemu še niso opazili. Leta 1838 si je rastišče kranjskega jegliča ob Divjem jezeru ogledal tudi sam saški kralj Friderik Avgust II., ki je pred tem obiskal tudi nahajališče blagajevega volčina *(Daphne blagayana)* na Polhograjski gori, o čemer tam še danes priča obelisk.

By the looks of its flowers, *primula carniolica* is similar to the common primrose. The main difference is that the *primula carniolica*'s stem, long between 5 to 25 cm, produces several violet flowers which are rarely solitary. The corolla is usually violet. The green parts of the plant do not have glandular hairs and the coating. As it is denoted in its name, it is the true Carniolan plant. Its range is limited to an area that is 70 km long and 25 km wide. *Primula carniolica* is endemic to Slovenia as it cannot be found anywhere else in the world.

Flowering time: April–May (or later in higher altitudes)
Habitat: It thrives in wet limestone cliffs, meadows and beech forests.
Distribution in Slovenia: It can be found from the Trebuša Valley to the town of Rob in the Notranjska region (the Idrija surrounding area, Slivnica, Borovniški Pekel, Iški Vintgar).
Endangerment: *Primula carniolica* is an endangered species as it thrives only in specific places in Slovenia. It is also threatened by Slovene and foreign collectors of rare species. For this is reason, it was included in Annexes II and IV of Council Directive on the conservation of natural habitats. Its habitat is included among the conservation areas and protected by Natura 2000 network.
Interesting fact: Interestingly, the Italian naturalist Giovanni Antonio Scopoli came across this endemic plant when he was working as a physician of the mercury mines in Idrija (1754–1769). However, he did not recognise it as a *Primula carniolica* – as such, it was first described by the botanist N. J. Jacquin in 1778. Although Scopoli has written that this plant grows near the lake Divje jezero (Idrija) where it can still be found today, Jacquin reported that it growed in Slovene Alps. But to this day, it was never discovered there. In 1838, even Frederick Augustus II of Saxony visited the lake Divje jezero to see *Primula carniolica*. Previoulsy, he also went to see the habitat of *Daphne blagayana* near Polhov Gradec. Today a monument can be found there in memory of that day.

Močvirska kačunka

CALLA, BOG ARUM, MARSH CALLA, WILD CALLA

(Calla palustris L.*)*

Ilustracija: Marina Gabor

Močvirska kačunka, ki so jo nekoč v 19. stoletju imenovali tudi liličnjek, je rastlina iz družine kačnikovk. Je edina predstavnica rodu *Calla* pri nas. Tvori gost sestoj do 10 cm dolgih mesnatih srčastih temnozelenih listov, v višino pa zraste do 40 cm. Ima votlo, v zemlji plazečo koreniko, ki pozimi edina preživi, ker listi odpadejo. V času cvetenja požene zeleno cvetno steblo s socvetjem, ki ga obdaja bel tulec. Največji delež opraševalcev močvirske kačunke predstavljajo polži.

Čas cvetenja: Cveti med majem in junijem.

Rastišče: Raste v gozdnih močvirjih, jelševih in brezovih močvirnatih gozdovih. Za uspevanje potrebuje sončne ali polsenčne lege in ne sme biti popolnoma potopljena v vodo (če jo sadimo v ribnik). Razširjena je po barjih v Evropi, Sibiriji, Severni Ameriki, Kanadi, tudi po Aziji oz. velikem delu severne poloble. Redkeje jo najdemo v srednji Evropi.

Razširjenost v Sloveniji: Je zelo redka, raste zgolj v okolici Ljubljane.

Ogroženost: V Sloveniji je zaščitena in je na seznamu ogroženih vrst zaradi izsuševanja močvirnatih območij. V naravi je zato tudi ne smemo nabirati.

Zanimivost: Rastlina je rahlo strupena. Vsebuje alkaloid aroin, ki povzroča vnetje in otekline na sluznici ter ohromitev centralnega živčnega sistema. Jeseni zrastejo rdeče jagode, ki so prav tako strupene. Močvirsko kačunko veliko uporabljajo tudi v hortikulturi, pri rokovanju z njo pa se priporoča uporaba rokavic. Njeno ime izvira iz že zelo pozabljene uporabe – včasih so iz nje pridobivali zdravilo proti kačjemu piku.

Bog arum belongs to the *Aroids* family and is the only species in the *Calla* genus in Slovenia. Its cordate-shaped leaves which are up to 10 cm long grow tightly together. It can grow up to 40 cm in height. Its root is hollow and climbing downwards towards the soil. During winter, the leaves fall off and the root is the only thing that survives. During the flowering time, it develops a pedicel with an inflorescence, surrounded by a white spathe. Bog arum is mostly pollinated by snails.

Flowering time: May–June

Habitat: Bog arum grows in forest marshes as well as marshy alder and birch forests. It thrives in sunny locations or in partial shade, but it must not be completely immersed in water (if planted in a pond).
It is widespread in a large part of the northern hemisphere (moors in Europe, Siberia, North America, Canada and even Asia), but it is uncommon in Central Europe.

Distribution in Slovenia: It is very rare as it grows only in the Ljubljana surrounding area.

Endangerment: In Slovenia, it is protected and listed as an endangered plant species. For this reason, it is not allowed to pick it.

Interesting fact: Bog arum is slightly poisonous. The plant contains poisonous alkaloids which cause inflammation, swelling and central nervous system paralysis. In autumn, the plant produces red berries which are also poisonous. It is widely used in horticulture, but it is advised to wear gloves when touching it. The Slovene name (*kačunka*) derives from an ancient use of the plant - people used to cure snakebite with it.

Močvirska logarica

MOČVIRSKA LOGARICA, MOČVIRSKI TULIPAN
CHEQUERED LILY, SNAKE'S HEAD
(Fritillaria meleagris L.*)*

Ilustracija: Marina Gabor

Že po obliki cveta se vidi podobnost s sorodnimi tulipani, le da je pri logarici do 4,5 cm velik cvet kimast in ga zaziblje že šibka sapica. Globoko v zemlji ima čebulico, iz katere požene do 30 cm visoko steblo, ki nosi enega do dva velika cvetova. Na steblu so premenjalno nameščeni črtalasti listi. Zgradba cvetov pa je prav takšna kot pri tulipanih. Dvakrat po trije listi cvetnega odevala, 6 prašnikov in tripredalasta nadrasla plodnica. Cvetni listi so škrlatno-belo lisasti, lahko pa naletimo na popolnoma bele cvetove – albine. Ker vzorec spominja na šahovnico, je eno od nemških imen za logarico »šahovska roža«.

Čas cvetenja: Cveti med marcem in aprilom.
Rastišče: Vlažna, poplavna travišča, logi in vlažni gozdovi v nižinskem pasu.
Razširjenost v Sloveniji: Okolica Ljubljane (Ljubljansko barje, pri Trzinu), Dolenjska (pri Kostanjevici), severovzhodna Slovenija.
Ogroženost: Kjer se pojavlja logarica, je navadno pogostna in ponekod celo zelo množična. V teh primerih je težko nekoga prepričati, da je rastlina ogrožena. Veliko bolj kot morebitno trganje, ki pa tudi ni preveč zanimivo, saj rastline zelo hitro ovenijo, je za logarico nevarno spreminjanje rastišča. Upad podtalnice zaradi osuševanja, intenzivnejše gnojenje ali pozidava so najpomembnejši dejavniki ogrožanja rastline.
Zanimivost: Kjer logarica uspeva, jo ljudje dobro poznajo. S tem, ko postaja redkejša, pa so se domačini ponekod z njo še bolj poistovetili. Kako bi si sicer razložili dejstvo, da so kar štiri občine to lepo močvirsko rastlino postavile v svoj občinski grb. Te občine so: Trnovska vas, Trzin, Ig in Brezovica.

You can notice the similarity with tulips already by the appearance of the flower. Chequered lily has a drooping flower up to 4.5 cm long. Deep in the ground there is a bulb that sprouts up to 30 cm long stem that produces one to two large flowers. The linear leaves alternate on the stem. The flower structure is exactly the same as in tulips: six tepals arranged into two separate whorls of three parts each, six stamens, the ovary is superior with three locules. Petals have a chequered pattern in shades of purple or sometimes pure white. As the pattern resembles a chessboard, one of the German names for it is *chess flower*.

Flowering time: March–April
Habitat: It thrives in damp, flooded grasslands, meadows and damp forests at altitudes up to 800 m.
Distribution in Slovenia: It can be found in the Ljubljana surrounding area (the Ljubljana Marshes, near Trzin), in the Dolenjska region (near Kostanjevica) and in northeast of Slovenia.
Endangerment: In its habitats it usually thrives in great numbers and for this reason, it is sometimes difficult to explain why it is endangered. Picking of it is not very interesting as the flowers wither quickly, however, interference in its natural habitat is more dangerous. The main factors of its endangerment are desiccation leading to groundwater decline, intensive fertilisation and using land for construction.
Interesting fact: Chequered lily is well known among the locals. As it is becoming even rarer, people are starting to appreciate it even more. This is confirmed by the fact that the following four municipalities included this beautiful plant into their municipal coat-of-arms: Trnovska vas, Trzin, Ig and Brezovica.

Navadna mastnica

COMMON BUTTERWORT

(Pinguicula vulgaris L.*)*

Ilustracija: Metka Kladnik

Navadna mastnica spada v družino mešinkovke in zraste od 5 do 15 cm visoko. Je mesojeda rastlina, ki na svoje lepljive, debelkaste, rumenozelene liste z žlezami z lepljivim izločkom lovi žuželke. Listi so v obliki rozete, na robovih in na koncu pa so zavihani navzgor. Na cvetnem peclju požene iz rozete cvet, redkeje dva, ki ima pet zraslih venčnih listov (zgoraj dva večja in spodaj tri manjše). Cvetni venec je zadaj podaljšan v ostrogo, ki je dolga od 3 do 6 mm. Cvetovi imajo po dva prašnika in nadraslo plodnico. V žrelu so vidne rumene dlačice. Za razliko od alpske mastnice, ki ima bele cvetove, so ti pri navadni mastnici vijolične barve.

Čas cvetenja: Cveti od marca do junija.
Rastišče: Raste na mokrih rastiščih, predvsem na barjih in ob izvirih; raje ima senco. Živi na z dušikom revnih tleh, uspeva pa tudi na apnenčastih, kjer je ena izmed redkih mesojedih rastlin.
Razširjenost v Sloveniji: Uspeva na višjih, hladnejših rastiščih, od sredogorja do alpskih vrhov.
Ogroženost: Je redka. Ogroža jo omejen habitat in hitro spreminjanje le-tega zaradi človeškega vpliva.
Zanimivost: V Veliki Britaniji in v Skandinaviji liste mastnice še danes uporabljajo za fermentacijo mleka. V preteklosti so liste te rastline uporabljali pri zdravljenju vnetij in odprtih ran, zato ima sloves zdravilne rastline. Sok, pridobljen iz mastnice, so uporabljali tudi pri kreiranju pričesk – za »lep sijaj in trajne kodre«.

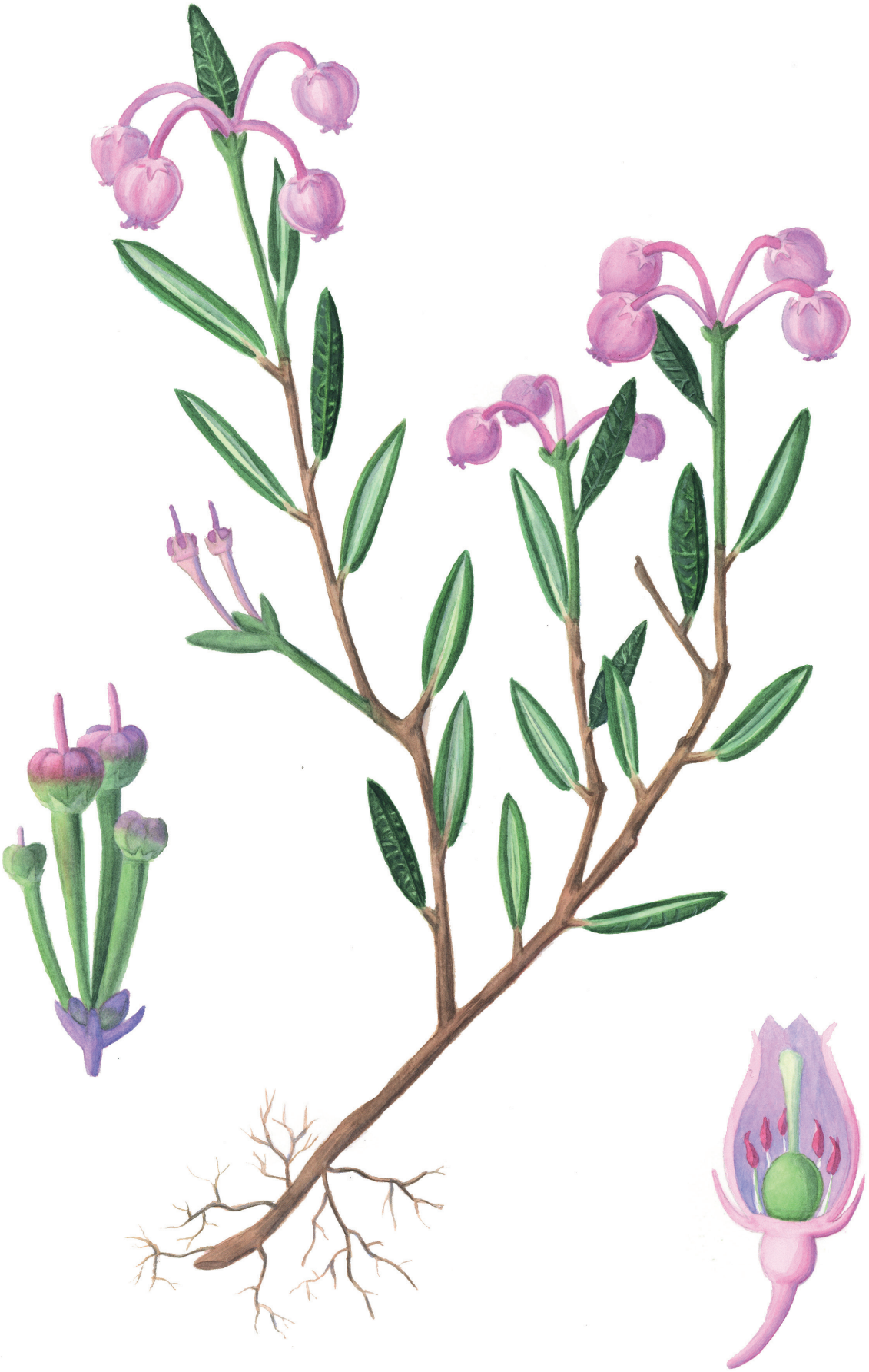
The common butterwort belongs to the butterworts family and grows between 5 to 15 cm in height. It is a carnivorous plant. To catch insects, it uses its sticky yellow-green leaves with glandular hairs that secrete a sticky substance. The leaves form a rosette and are curled upwards at the margin and the tip. The flower stalk bears a flower (rarely two) comprised of 5 petals (the two upper ones are bigger and the three lower ones are smaller). The corolla extends into a spur that is between 3 to 6 mm long. The flowers have two stamens and a superior ovary. There are visible yellow hairs in its throat. Unlike the alpine butterwort which has white flowers, the common butterwort has purple flowers.

Flowering time: March–June
Habitat: It thrives in damp areas, for example in marshes and near springs, and prefers to be in the shade. It grows in soils that lack nitrogen as well as in limestone soils where it is one of the rare carnivorous plants.
Distribution in Slovenia: It can be found at high altitudes and cooler areas from the lowlands to the alpine peaks.
Endangerment: The common butterwort is a very rare species. It is endangered due to its limited habitat and the human interference in it.
Interesting fact: In Great Britain and in Scandinavia, the plant's leaves are still used for milk fermentation. It is known as medicinal plant as in the past, its leaves were also used to treat inflammations and open wounds. The juice that was made of the common butterwort was also used in hairstyling as it provided "beautiful shine and lasting curls".

Navadna rožmarinka

BOG-ROSEMARY

(Andromeda polifolia L.*)*



Ilustracija: Marina Gabor

Navadna rožmarinka je zimzelen grmiček, visok od 10 do 30 cm, ki spada v družino vresovk. Steblo je dolgo in olesenelo, na kolencih pa izraščajo korenine. Listi so podolgovato suličasti, dolgi od 15 do 30 mm ter z izrazito uvihanim robom. Zgoraj so temnozeleni, na spodnji strani pa sivkasti. Cvetovi so rožnati, kimasti in na od 3 do 4 cm dolgih pecljih. Na koncih poganjkov jih je v rahlih ovršnih socvetjih od 2 do 8. Prašnikov, ki so zaprti v kroglastem vencu, je 10.

Čas cvetenja: Cveti med aprilom in junijem.
Rastišče: Najdemo jo na višje ležečih visokih barjih, kjer raste na kislih in humusnih tleh. Potrebuje vlažno zemljo in sončno do polsenčno lego. Razširjena je po severni in srednji Evropi ter severni Aziji.
Razširjenost v Sloveniji: V Sloveniji raste na Lovrenških jezerih, Pokljuških barjih in na Ljubljanskem barju, kjer je že skoraj popolnoma izginila.
Ogroženost: Pri nas je redka, njeno rastišče je omejeno in je zato ogrožena.
Zanimivost: Družinsko ime Andromeda je rastlini nadel Carl Linne, ki jo je leta 1732 opazoval med svojo ekspedicijo na Laponski in jo primerjal z boginjo iz grške mitologije, Andromedo. Ime je dobila tudi zaradi navidezne, a lažne podobnosti z rožmarinom.

Bog-rosemary is an evergreen shrub that grows between 10 to 30 cm and belongs to the heath family. It has long lignified stems with nodes from which roots grow. Its leaves are elongated and lanceolate with distinctive leaf margins curled under. They are dark green above and grey beneath. The pink drooping flowers occur at the end of a stalk that is 3 to 4 cm long. The bracteate inflorescence carries from 2 to 8 flowers. There are 10 stamens that are hidden in a corolla.

Flowering time: April–June
Habitat: It thrives in raised bogs at high altitudes, in acid soils and peat-accumulating areas. It requires damp soil and a sunny position or a position in partial shade. It is widespread in Northern and Central Europe as well as Northern Asia.
Distribution in Slovenia: In Slovenia, it can be found near the Lovrenc Lakes, the Pokljuka Marshes and the Ljubljana Marshes where it has already almost disappeared.
Endangerment: It is a very rare species in Slovenia. Its habitat is very limited and for this reason, it is endangered.
Interesting fact: The plant's family was named by Carl Linne in 1732 when he was observing the species during his expedition to Sapmi. He compared it to the Greek goddess Andromeda. Its name also derives from the apparent, but false similarity with rosemary.

Navadni mali zvonček

COMMON SNOWDROP

(Galanthus nivalis L.*)*

Ilustracija: Teja Milavec

Navadni mali zvonček spada v družino narcisovk in v višino zraste med 10 in 25 cm. Pozno pozimi iz čebulice poženeta dva sivozelena črtalasta pritlična lista, na neolistanem steblu pa zraste kimast cvet, ki se odpre že zgodaj spomladi. Značilen cvet v obliki zvončka je sestavljen iz treh belih koničastih zunanjih cvetnih (perigonovih) listov in treh krajših izrobljenih notranjih (perigonovih), ki imajo na koncu zeleno liso v obliki narobe obrnjene črke v.

Čas cvetenja: Cveti od januarja do aprila.

Rastišče: Zvonček uspeva na rastiščih v gozdu in ob gozdnih robovih, na negnojenih travnikih, ob bregovih rek, v sadovnjakih in na vlažnih, s hranili bogatih tleh.

Razširjenost v Sloveniji: Raste na bolj vlažnih in suhih tleh po skoraj celotni Sloveniji, ni pa jih ob presihajočih jezerih na Krasu in v alpskih dolinah na Gorenjskem. Proti morju lahko rastejo tudi na 900 m n. v. in več.

Ogroženost: Zvonček je v naravi zaščitena rastlinska vrsta, uvrščen je na seznam zavarovanih rastlin, ščiti pa ga tudi CITES, ki prepoveduje nabiranje podzemnih delov in semen te rastline. Ker vsako leto iz iste čebulice rastlina na novo požene poganjek, njegove nadzemne dele lahko nabiramo zelo omejeno, nikakor pa ne za prodajo.

Zanimivost: Navadni mali zvonček je poleg trobentice in velikega zvončka znanilec pomladi, saj požene, ko se sneg velikokrat še ne umakne.

The common snowdrop belongs to the daffodil family. It can grow between 10 to 25 cm in height. In late winter, two linear grey-green leaves start to grow from the bulb and in early spring, a nodding flower develops on a leafless stalk. Its distinctive flower is bell-shaped and is comprised of three outer white cuspidate tepals and three shorter inner tepals which have a green V-shaped mark at the tip of each tepal.

Flowering time: January–April

Habitat: Snowdrop thrives in forests, along forest edges, on unfertilised meadows, river banks and in orchards. It grows in wet soil that is rich in nutrients.

Distribution in Slovenia: It is widespread in almost entire Slovenia, in areas with wet to dry soil. It does not grow near intermittent lakes in the Karst region or in alpine valleys in the Gorenjska region. Near the sea, it can be found in locations up to 900 m above sea level and higher.

Endangerment: In Slovenia, common snowdrop is protected and listed as an endangered plant species. It is also protected by CITES (i.e. an international treaty which protects endangered species) which prohibits digging up the underground parts and collecting seeds of this plant. As each bulb sprouts every year, its above ground parts can be picked in moderation, but by no means for sale.

Interesting fact: Beside the common primrose, the common snowdrop is one of the first flowers to bloom in spring as it starts to sprout when snow is still not completely melted.

Robati luk

MOUSE GARLIC

(Allium angulosum L.)

Ilustracija: Teja Milavec

Robati luk sodi v družino lukovk. Na ostrem trirobem steblu zraste od 20 do 60 cm visoko. Sveži, po česnu dišeči listi so po spodnji strani razločno gredljasti. Pod zemljo so podolgovate čebulice, ki so pritrjene na kratko koreniko. V oblem ovršnem socvetju so združeni mnogi pecljati šestštevni cvetovi. Prašniki so komaj daljši od cvetnega odevala, kar je značilno posebej za to vrsto luka.

Čas cvetenja: Cveti od julija do septembra.

Rastišče: Raste predvsem na vlažnih in močvirnih travnikih ter jezerskih bregovih na sončnih ali polsenčnih legah. Razširjen je po srednji in vzhodni Evropi.

Razširjenost v Sloveniji: V Sloveniji je precej redek, razširjen je tu in tam po zahodni in osrednji Sloveniji ter na vzhodu države.

Ogroženost: Ker uspeva na tleh, ki so zelo občutljiva na človekovo poseganje v naravo, sodi pri nas med ogrožene vrste.

Zanimivost: Na kraških poljih, v kotanjah in kraških požiralnikih ter presihajočih jezerih je mogoče opaziti združbo plazečega petoprstnika in robatega luka, ki je še posebej vidna v avgustu, ko cveti robati luk, dominantna vrsta. V kombinaciji z značilnim uspevanjem v depresijah kaže na svojstven vegetacijski tip.

Mouse garlic belongs to the *Allioideae* family. The sharp three-edged stem grows between 20 to 60 cm in height. Its leaves have distinctive parallel venation and smell like garlic. The underground narrow and elongated bulbs are attached to a short root. The plant has a hemispherical umbel of numerous small pink flowers on long pedicels. Stamens are barely longer than the petals which is characteristic of this type.

Flowering time: July–September

Habitat: It thrives in wet and marshy meadows as well as lake banks in sunny locations or in partial shade. It is widespread in Central and East Europe.

Distribution in Slovenia: It is quite rare in Slovenia. It can be found in some places in west, central and east parts of the country.

Endangerment: It is listed as an endangered plant species in Slovenia as it grows in areas which can be easily destroyed in case of human interference.

Interesting fact: In karst fields (basins, sinkholes and intermittent lakes), mouse garlic, the dominant species, can be found alongside creeping cinquefoil. They are clearly visible in August when mouse garlic blooms. When they both thrive in this distinctive area, they form a unique plant community.

Sibirska perunika

SIBERIAN IRIS

(Iris sibirica L.*)*

Ilustracija: Marina Gabor

Sibirska perunika je od 30 do 50 cm visoka trajnica s koreniko, ki je na vratu z obrabljenimi ostanki lanskoletnih listov. Steblo je okroglo. Listi so široki 4 mm in krajši od stebla. Na vrhu okroglega, votlega stebla se navadno razvijeta dva velika modra cvetova, ki sta v notranjosti belkasta. Krasijo ju izrazite modre žile. Zunanji listi cvetnega odevala so narobejajčaste oblike, notranji pa so jajčastosuličasti. Cvetovi perunik so brez težav prepoznavni po trojnosti. Če pogledamo cvet s ptičje perspektive, vidimo, da so cvetni listi razporejeni v obliki trikotne zvezde. Veliki barviti cvetni listi so nanizani v dveh krogih. Zunanji cvetni listi so večji, razprostrti in upognjeni navzdol, cvetni listi notranjega kroga pa so manjši in pokončni. Ko jih enkrat spoznamo, jih ne moremo več zgrešiti.

Čas cvetenja: Cveti od maja do junija.
Rastišče: Močvirni travniki od nižine do montanskega pasu.
Razširjenost v Sloveniji: Vlažna rastišča in močvirni travniki po večjem delu Slovenije z izjemo goratih predelov in suhih delov v jugovzhodni Sloveniji. Na zahodu jo srečamo ob reki Vipavi in travnikih okoli Postojne, na vzhodu pa je najpogostejša v Prekmurju.
Ogroženost: Glavni razlog za ogroženost je izginjanje ustreznih življenjskih prostorov predvsem zaradi izsuševanja in pa tudi zaradi opuščanja košnje, kar vpliva na postopno zaraščanje z lesnimi vrstami. Ogrožene so tudi, ker so hortikulturno zanimive.
Zanimivost: Cvet perunike je zanimiv, saj je mogoče videti njegovo ustje s katerekoli strani. Še več, daje vtis treh cvetov. Morda je prav ta tristrana vsevidnost razlog za ime rastline po staroslovanskem bogu Perunu? Pri mnogih rastlinah je po več cvetov videti kot en sam (npr. pri planiki ali marjetici), tu pa je isti učinek dosežen le z delom enega cveta. Latinsko ime rodu izvira iz besede *iris*, ki predstavlja mavrico. Verjetno je ime dobilo po mnogih različnih barvnih kombinacijah, ki jih imajo lahko cvetovi.

Siberian iris is a perennial that grows between 30 to 50 cm. It has a large rhizome that is covered with the brow remnants of old plants from previous seasons. The stem is round. Its leaves are 4 mm wide and shorter than the stem. The hollow, flat and round-shaped stem usually bears two large blue flowers that turn white towards the inner part. The flowers have distinctive dark blue venation. The sepals of an iris are oblong to obovate-shaped, while the expanded part of a corolla is obovate to orbicular in shape. The flowers are easily recognisable by their flower parts that occur in threes. Looking at the flower from above, we can notice that its petals are arranged in a shape of a triangular star. The flower consists of two pairs of petals: the outer petals are larger and spread out downwards, while the inner petals are smaller and upright. Once you get to know them, it is impossible to mistake them for another plant.

Flowering time: May–June.
Habitat: Wet meadows from the lowland to the montane zone.
Distribution in Slovenia: It can be found in wet meadows and other wet places throughout Slovenia with the exception of mountain areas and dry areas in southeast Slovenia. In the western part of the country, it thrives along the Vipava river and in the meadows surrounding Postojna. In the east, is most frequently found in Prekmurje.
Endangerment: The main reason for its endangerment is habitat destruction primarily due to habitat drying and the abandonment of grass cutting which leads to gradual overgrowth of wood species. They are also endangered because they are interesting for horticulture.
Interesting fact: The plant's flower is interesting because it gives an impression of three flowers. This was maybe the reason why it is named after the Slavic god Perun in Slovene (perunika). In many plants, a group of their flowers seems like a single flower (for example edelweiss and daisy), but the Siberian iris achieves the same effect with only one flower part. Its Latin name derives from the word *iris* which means rainbow. This name was probably given to it because of many colour combinations of the flower.

Sinjezelni členkar

ARTHROCNEMUM MACROSTACHYUM

(Arthrocnemum macrostachyum (Moric) C. Koch*)*

Ilustracija: Metka Kladnik

Sinjezeleni členkar je redkejša slanuša – rastlina slanih tal, ki raste posamično v večjih grmičih. Je trajnica, visoka od 40 do 100 cm. Stebla so pri dnu olesenela in izraščajo v členkih, ki so enako široki kot dolgi, mesnati ter sinjezeleni. Listi so nasprotni in reducirani v krilat rob proti vrhu členkov. Socvetja rastejo v klasu. Na vsakem kolencu sta dve skupini s po tremi sedečimi cvetovi, ki so ugreznjeni v vdolbine členkov. Semena so črna, bradavičasta. Na videz je zelo podoben grmičasti členjači, a se od nje razlikuje v sorazmerno dolgih steblih, ima pa tudi bolj sinjezeleno barvo.

Čas cvetenja: Cveti od julija do septembra.
Rastišče: Raste na suhih, slanih tleh in v solinah na pregradah med solinarskimi bazeni.
Razširjenost v Sloveniji: Pri nas členkarja najdemo na višjih predelih solin in v zavetju opuščenih solinarskih hiš na Fontaniggah.
Ogroženost: Zaradi svojih specifičnih (halofitnih) pogojev za rast ga ne najdemo nikjer drugje in je zato ranljiva vrsta, še posebej v primeru naravne katastrofe.
Zanimivost: Členkar je lahko okusen dodatek k raznim jedem, kot so npr. jajca, saj jim doda sočnost zaradi svoje mesnate teksture.

***Arthrocnemum macrostachyum* is a rare halophyte (i.e. a plant that grows in waters of high salinity). This perennial grows separately in bigger shrubs and reaches between 40 to 100 cm in height. The plants have woody stems near the ground and branch into jointed fleshy stems which are pale green. The leaves have an opposite arrangement and are reduced into a winged edge towards the top. The flowers are produced at each joint in threes and form cylindrical spikes. The seeds are black and coarse. By its looks, it is very similar to *Sarcocornia*, but it differs from it by its long stems and its pale green colour.**

Flowering time: July–September
Habitat: It thrives in dry and saline soils as well as in barriers between salt pans.
Distribution in Slovenia: In Slovenia, it can be found only in higher areas of salt pans and near abandoned salt pan houses at Fontanigge.
Endangerment: Due to its specific growth conditions (halophytic) it is not found anywhere else and is considered a vulnerable species as it could be easily affected in case of a natural disaster.
Interesting fact: It goes very well with various dishes, for example eggs, because of its juicy texture.

Srednja rosika

OBLONG-LEAVED SUNDEW, SPOONLEAF SUNDEW

(Drosera intermedia Hayne*)*

Ilustracija: Sanja Zamuda

V Evropi se ne moremo ravno ponašati z veliko pestrostjo mesojedih rastlin. Med najbolj zanimive sodijo rosike. Zlahka jih prepoznamo po značilnih listih, ki so posejani s pecljatimi žlezami (tentakli). Na konceh so kroglasto odebeljeni in izločajo lepljivo tekočino. Videti so kot kapljice rose – od tu tudi ime rosika. Kako deluje rosikina smrtonosna past? Ko žuželka sede na list, se zalepi na lepljiv izloček žlez. Počasi se žleze ukrivijo in zastrejo ujeto žrtev, izločeni prebavni sokovi jo razgradijo, uporabne snovi preidejo v notranjost lista, neprebavljene ostanke pa deževnica spere z listne površine. Listi so zeleni, torej rastlina lahko sama izdeluje sladkorje, snovi, ki jih primanjkuje v močvirju, pa dopolni z »mesno« hrano. Na takih rastiščih primanjkuje predvsem dušika. Ob tako zanimivih listih so cvetovi čisto zapostavljeni. Odprejo se na vrhu vitkega stebla v malocvetnem ovršnem socvetju. Cvetovi so beli in 5-števni. Srednja rosika se od ostalih dveh, ki rasteta pri nas, loči po listni ploskvi, ki je vsaj dvakrat tako dolga kot široka in se postopoma zoži v pecelj, ki ni porasel z žlezami. Steblo je pri dnu lokasto ukrivljeno, izrašča obstransko in je le malo daljše od listov. Listni peclji so goli.

Čas cvetenja: Cveti med julijem in avgustom.
Rastišče: Šotna barja in vlažna tla.
Razširjenost v Sloveniji: Znana nahajališča redke srednje rosike so na Ljubljanskem barju in Cerkniškem jezeru.
Ogroženost: Za rosike je najbolj usodno spreminjanje življenjskega prostora, kar se pri mokriščih lahko hitro pripeti. Kot mesojede rastline so lahko zanimive tudi za gojenje.
Zanimivost: Kljub zelo nenavadnim listom lahko rosiko zlahka spregledamo. Največkrat, ker si jo predstavljamo večjo, kot je. List je namreč nekoliko manjši od kovanca za en cent.

In Europe, not many carnivorous plants can be found. The most fascinating ones are those belonging to the sundew genus. Oblong-leaved sundew is easily recognisable by its distinctive leaves that are covered with stalked glands which secrete a sticky nectar. This resembles dew drops which is why it was given the name sundew. Its deadly trap works like this: the insect is attracted to the sticky nectar but when it sits on the plant, it becomes ensnared by the mucilage. The plant then catches the insect, secretes digestive enzymes and absorbs the nutrients, while the rain washes away the indigested remains from the leaf surface. As it has green leaves, it can produce sugars by itself, and uses insects to supplement the poor mineral nutrition of its natural swampy environment (such places mostly lack in nitrogen). With such interesting leaves, its flowers are completely neglected. They occur at the top of a very narrow multi-flowered stem and are white. Oblong-leaved sundew differs from the other two sundews that thrive in Slovenia by its leaf surface – it is at least twice as long as wide and gradually narrows into a stem without the glands. The stem is curved at the bottom and is just a little longer than the leaves. The leaf stalks are naked.

Flowering time: July–August
Habitat: It thrives in peat bogs and damp soil.
Distribution in Slovenia: It grows in the Ljubljana Marshes and Lake Cerknica.
Endangerment: The biggest threat to sundews is human interference in their natural habitat. To some, they might also be interesting to grow as they are carnivorous.
Interesting fact: Despite the unusual leaves, the oblong-leaved sundew is easily overlooked. In most cases because we imagine it bigger than it is – its leaves are slightly smaller than a coin for one cent.

Sternbergov klinček

DIANTHUS STERNBERGII

(Dianthus sternbergii Sieber*)*

Ilustracija: Metka Kladnik

Sternbergov klinček je trajnica in spada v družino klinčnic, izmed katerih je najbolj podoben montepellierskemu. Od njega se razlikuje v tem, da je Sternbergov z višino do 20 cm nižji, njegova stebla so enocvetna, listi so sinjezeleni in manj priostreni. Ploščica venčnih listov je do polovice resasto razcepljena. Čaša je dolga do 2 cm, čašni zobci so suličasti in ozko kožnato obrobljeni. Čašne luske so štiri, so jajčasto suličaste in dolgo priostrene, na dnu cvetne čaše se zaključujejo z dolgo zeleno reso.

Čas cvetenja: Cveti od julija do septembra.
Rastišče: Sternbergov klinček uspeva na karbonatnem grušču, meliščih in kamnitih tratah v subalpinskem in alpinskem pasu. Rastišča segajo od 1500 do 2360 m visoko.
Razširjenost v Sloveniji: Najdemo ga lahko v Julijskih in Kamniško-Savinjskih Alpah ter Karavankah.
Ogroženost: Rastlina je zaradi svojega omamnega vonja, dolgih pecljev in lepih cvetov zelo cenjena za šopke, zato sodi med zgodnje zavarovane rastline.
Zanimivost: Latinsko ime je sestavljeno iz besed »Dios« (bog) in »anthos« (cvet) – pomeni torej božji cvet.

***Dianthus sternbergii* is a perennial plant that belongs to the carnation family – it is very similar to *Dianthus monspessulanus*. However, the *D. sternbergii* is smaller as it grows up to 20 cm, its stems are single-flowered and its leaves are pale green and less acuminated. The upper part of petals has fringed margins. The calyx is about 2 cm, the petal teeth are lanceolate and narrow trimmed. The four oval and long-pointed petal scales end in a long green chaff.**

Flowering time: July–September
Habitat: It thrives in carbonate gravel, screes and areas with stony soil in subalpine and alpine zones.
Distribution in Slovenia: It can be found in the Julian Alps, the Kamnik-Savinja Alps and the Karavanks. It grows in areas with an altitude between 1500 and 2360 m.
Endangerment: Because of its lovely smell, long stems and pretty flowers people liked to pick it and put in bouquets. For this reason, it was among the first plants that became protected.
Interesting fact: The Latin name derives from the words “Dios” (god) and “Anthos” (flower) meaning the flower of god.

Tommasinijeva popkoresa

MOEHRINGIA TOMMASINII

(Moehringia tommasinii Fenzl*)*

Ilustracija: Metka Kladnik

Tommasinijeva popkoresa je zelnata trajnica velika le od 5 do 10 cm. Rastlina ima nežno steblo, ki je razvejano in pri dnu ležeče. Listi so sinjezelene barve, dolgi od 0,5 do 2,5 cm, črtalasti, vendar nekoliko mesnati. Njena posebnost so drobni, beli zvezdasti cvetovi, ki imajo po štiri venčne liste in osem prašnikov ter so razvrščeni v dveh krogih. Izredno zanimiv pa je tudi način širjenja semena tommasinijeve popkorese. Na semenu se namreč tvori elajosom – izrastek s hranilnimi snovmi, ki delujejo kot vaba za raznašalce semen, na primer mravlje.

Čas cvetenja: Cveti od marca do maja (odvisno od mikroklime).

Rastišče: Razpoke v apnencu prisojnega (previsnega) skalovja, kjer občasno in na rahlo mezi voda.

Razširjenost v Sloveniji: Redko v stenah Kraškega roba: Osp (klasično nahajališče), Črni Kal, Podpeč.

Ogroženost: Rastlina je pravi stenoendemit (vrsta z zelo omejeno razširjenostjo) in se povrhu tega na majhnem območju razširjenosti pojavlja le točkasto. Eno rastišče je v Italiji (dolina Glinščice), tri v Sloveniji (Osp, Črni Kal, Podpeč) in dve na Hrvaškem (Istarske toplice in v bližini Buzeta). To pomeni, da na celem svetu obstaja le nekaj sto primerkov. Ne zdi se verjetno, da bi lahko človek ogrožal to rastlino, ki raste na zelo težko dostopnih stenah. Pa vendarle sta postali dve od treh rastišč v Sloveniji (Osp in Črni Kal) in edino rastišče v Italiji (Glinščica) priljubljene evropske destinacije za plezanje.

Zanimivost: Tommasinijevo popkoreso je leta 1843 prvi opazil Muzio Tommasini, tržaški župan in glavni pobudnik florističnega raziskovanja tedanjega avstro-ogrskega primorja. Kot posebno vrsto jo je leta 1879 opisal tržaški botanik Carlo Marchestti in jo poimenoval po svojem učitelju in odkritelju, Tommasiniju.

This is an herbaceous perennial that grows only from 5 to 10 cm. It has a delicate stem that branches out near the ground. Its green linear leaves grow between 0.5 to 2.5 cm and are slightly fleshy. What makes it special are its tiny white star-shaped flowers consisting of 4 petals and 8 stamens arranged in two circles. Very interesting is also the way in which the plant spreads its seeds. An elaiosome – a fleshy structure rich in nutrients – is attached to the seed that attracts pollinators, for example ants.

Flowering time: March–May (depending on the microclimate)

Habitat: It grows in the cracks of limestone rocks (cliffs). It likes locations that are exposed to the sun and where water slightly or occasionally oozes out of the rocks.

Distribution in Slovenia: It is very rare. The locations where it thrives include the cliffs of Kraški rob: villages of Osp (one of the main locations), Črni Kal and Podpeč.

Endangerment: This is a true endemic plant as its habitat is very limited. In addition to this, it appears only in very specific areas of its natural habitat. One of its habitats is in Italy (the Glinščica Valley), three in Slovenia (Osp, Črni Kal, Podpeč) and another two in Croatia (Istarske toplice and near Buzet). This means that in the entire world, there are only about a hundred specimens of this plant. It is hard to imagine how people could threaten this plant that thrives in such hard-to-reach cliffs. However, two locations in Slovenia (Osp and Črni Kal) and the only location in Italy (Glinščica) have become popular European climbing destinations.

Interesting fact: *Moehringia tommasinii* was first discovered in 1843 by Muzio Tommasini, the mayor of Trieste and the main initiator for the floristic exploration of the Austro-Hungarian coast of that time. It was described as a special species in 1879 by the botanist Carlo Marchestti who named it after his teacher Tommasini.

Žabji šejek

FROGBIT

(Hydrocharis morsus-ranae L.*)*

Ilustracija: Sanja Zamuda

Žabji šejek je prosto plavajoča vodna trajnica, visoka od 15 do 30 cm. Steblo požene stranske poganjke – pritlike. Plavajoči listi spominjajo na lokvanjeve, vendar so precej manjši. Okrogloledvičasti plavajoči listi so dolgopecljati ter široki od 2 do 6 cm, z dvema prilistoma, na otip se zdijo usnjati. Na spodnji strani vodne gladine so dolge, prosto plavajoče korenine, s katerimi črpa hranila iz vode, v plitvi vodi pa se lahko tudi ukorenini. Veliki cvetovi so enospolni, rastline pa dvodomne. To pomeni, da so na eni rastlini razviti le ženski, na drugi rastlini pa le moški cvetovi. Ženski cvetovi so posamični, moški pa združeni v malocvetna kobulasta socvetja. Cvetovi v premeru merijo do 2 cm. Cvetni listi ženskih in moških cvetovi so beli, le cvetni listi v ženskih cvetovih pa so pri dnu rumeni.

Čas cvetenja: Cveti med majem in avgustom.
Rastišče: Stoječe ali počasi tekoče vode in ribniki.
Razširjenost v Sloveniji: Ljubljansko barje, pogostejši na vzhodnem Štajerskem in Prekmurju (Hotiško, Petišovsko jezero).
Ogroženost: Žabji šejek je ogrožen zaradi izginjanja zanj primernega življenjskega prostora, predvsem zaradi spreminjanja vodnih teles, kanaliziranja, zasuvanja, izsuševanja ...
Zanimivost: Njegovo znanstveno rodovno ime prihaja iz grščine, pomeni pa »vodoljuba«, vendar smo v domači rabi ta pomen prenesli na prav tako vodoljubno, a zakoreninjeno rastlino z latinskim imenom *Butomus umbellatus* - navadna vodoljuba.

Frogbit is a floating perennial plant that grows between 15 to 30 cm and spreads by stolons. Its floating leaves resemble the leaves of water lilies, but the frogbit's are smaller. The reniform floating leaves with a long petiole can grow between 2 to 6 cm. They feel leathery to touch. The plant's free-floating long roots, which are used to draw nutrients, hang down in the water, but can also be rooted in shallow waters. Its large flowers are unisexual – frogbit is a dioecious plant. This means that sep-arate plants develop male or female flowers. Female flowers are singular, while male flowers form an umbel. The flowers can grow up to 2 cm in diameter. Both, male and female petals are white, but the female ones turn yellow at the bottom.

Flowering time: May–August
Habitat: Frogbit grows in surface waters, waters with weak current and in ponds.
Distribution in Slovenia: It can be found in the Ljubljana Marshes and is more common in the east of Štajerska region and in Prekmurje (Lake Hotiza, Lake Petišovci).
Endangerment: It is endangered due to destruction of habitats that are appropriate for its growth, for example by changing the waterbodies, canalising, filling up, desiccation etc.
Interesting fact: Its scientific name derives from Greek and it means "waterplant". However, the Slovene translation of this (*vodoljuba*) has already been taken by *Butomus umbellatus*.

Uredniki/*Editors:*
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Opisi rastlin/*Plant descriptions:*
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Založnik/*Publisher:*
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Zanj/*For*: znan. svet./*Research Counsellor*: dr. Jože Bavcon

Leto izida/*Year of Publication*:
2019

Jezikovni pregled in prevodi/*Proofreading and translation:*
Urška Lisjak

Ilustracije/*Illustrations:*
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Oblikovanje/*Design:*
Sara Sešlar Naraks

Tisk/*Print:*
Nonparel d.o.o

Naklada/*Circulation:*
800

CIP - Kataložni zapis o publikaciji
Narodna in univerzitetna knjižnica, Ljubljana

581.9(497.4)(084.1)
502.172:582(497.4)(084.1)

LIKOVNA in vsebinska obravnava endemičnih in ogroženih raslinskih vrst v Sloveniji = Illustrations and descriptions of endemic and endangered plant species in Slovenia / [uredniki Marija Nabernik ... [et al.] ; opisi rastlin Janoš Portir in Annasibila Požrl ; prevodi Urška Lisjak ; ilustracije Marina Gabor ... et al.]. - Ljubljana : Botanični vrt Univerze v Ljubljani, 2019

ISBN 978-961-6822-56-5
1. Vzp. stv. nasl. 2. Nabernik, Marija
298790912

Viri/*Literature:*

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Dostopno na spletnih straneh [15.8.2018]/*Available on web pages:*

http://www.botanicni-vrt.si/
https://www.pzs.si/
na povezavah:
https://www.pzs.si/flora.php
http://www.botanicni-vrt.si/seznam-rastlin

ISBN 978-961-6822-56-5
9 789616 822565
Cena: 8,5 €

Likovna in vsebinska obravnava endemičnih in ogroženih rastlinskih vrst v Sloveniji
Illustrations and Descriptions of Endemic and Endangered Plant Species in Slovenia

Projekt sofinancirata Republika Slovenija in Evropska unija iz Evropskega socialnega sklada.
Projects is co-financed by the Republic of Slovenia and the European Union.

Trajanje projekta/*Project Duration:*
16. 6. – 15. 9. 2018

Izvajalec/nosilec projekta/*Executive Holder:*
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Namen javnega razpisa Projektno delo z negospodarskim in neprofitnim sektorjem v lokalnem in regionalnem okolju – Študentski inovativni projekti za družbeno korist 2016–2018 je povezovanje visokošolskih zavodov z negospodarskim in neprofitnim sektorjem v lokalnem oz. regionalnem okolju ter izvajanje inovativnih prožnih oblik učenja za razvoj kompetenc in praktičnih izkušenj študentov.

The purpose of the public tender Project with non-economic and non-profit sector in local and regional environment, Student innovative projects for social benefit 2016-2018, is to connect higher education institutions with non-economic and non-profit sector in local and regional environment and to implement innovative flexible forms of learning in order to develop competences and practical experiences for students.

REPUBLIKA SLOVENIJA
MINISTRSTVO ZA IZOBRAŽEVANJE, ZNANOST IN ŠPORT
EVROPSKA UNIJA
EVROPSKI SOCIALNI SKLAD
Javni štipendijski, razvojni, invalidski in preživninski sklad Republike Slovenije
Univerza v Ljubljani
Akademija za likovno umetnost in oblikovanje
200 let
Botanični vrt Univerze v Ljubljani
University Botanic Gardens Ljubljana
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BOTANIČNO DRUŠTVO SLOVENIJE
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