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New records and noteworthy data of plants, algae and fungi in SE Europe and adjacent regions, 24

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ABSTRACT:
This paper presents new records and noteworthy data on the following taxa in SE Europe and adjacent regions: green algae *Cosmarium formosulum* and *Tetraspora gelatinosa*, fungi *Coprinopsis melanthina, Heteroxylaria oxyacanthae, Lophodermium petiolicolum, Peziza ostracoderma,* and *Phylloporia ribis,* lichen *Sphaerophorus globosus,* liverworts *Scapania curta* and *Solenostoma gracillimum,* mosses *Buxbaumia viridis, Sphagnum cuspidatum* var. *viride,* and *Sphagnum medium,* dicots *Hippuris vulgaris* and *Viola orbelica* and monocots *Arundo donax,* × *Gymnigritella suaveolens, Ophrys insectifera,* and *Ornithogalum montanum*.

Keywords: new report, *Arundo donax, Buxbaumia viridis, Coprinopsis melanthina, Cosmarium formosulum,* × *Gymnigritella suaveolens, Heteroxylaria oxyacanthae, Hippuris vulgaris, Lophodermium petiolicolum, Ophrys insectifera, Ornithogalum montanum, Peziza ostracoderma, Phylloporia ribis, Scapania curta, Solenostoma gracillimum, Sphaerophorus globosus, Sphagnum cuspidatum* var. *viride, Sphagnum medium, Tetraspora gelatinosa, Viola orbelica,* SE Europe

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***Arundo donax* L., fam. Poaceae (monocot, vascular plants)**
Contributors: Predrag Lazarević and Maja Lazarević
Geographical focus: Serbia
New records and noteworthy data: These are the first findings of invasive alien species *Arundo dona*x as a member of the spontaneous flora in Central Serbia.
Specimen data: 1) Central Serbia, Trstenik, the village of Odžaci, by the side of the road, N 43.601875°, E 21.046647°, MGRS 34T EP02, 212 m a.s.l.; 12 June 2025; leg./det. Lazarević P, Lazarević M.; **2)** Trstenik, the village of Gornji Ribnik, by the side of the road, N 43.590204°, E 21.070455°, MGRS 34T EP02, 217 m a.s.l; 25 August 2025; det. Lazarević P, Lazarević M. (observed and photographed); **3)** Trstenik, by the side of the road Stopanja – Koševi, N 43.582862°, E 21.220796°, MGRS 34T EP12, 196 m a.s.l; 25 August 2025; leg./det. Lazarević P, Lazarević, M.; **4)** Kruševac, the village of Žabare, by the side of the road, N 43.523688°, E 21.230746°, MGRS 34T EP11, 223 m a.s.l.; 15 June 2025; leg./det. Lazarević, P, Lazarević M.; **5)** Kruševac, the village of Razbojna, by the side of the road, N 43.3472670°, E 21.1672920°, MGRS 34T EN19, 280 m; 24 July 2025; leg./det. Lazarević P, Lazarević M.
Vouchers: Herbarium of the Institute of Botany and Botanical Garden Jevremovac, Faculty of Biology, University of Belgrade (BEOU), vascular plant collection: 18073, 18074, 18075, 18077.

These are the first findings of invasive alien species *Arundo donax* as a member of the spontaneous flora in Central Serbia, in the vicinity of Trstenik and Kruševac. Previous records from Serbia date back to the second half of the 19th century, and refer to Vojvodina – Obedska bara (Godra 1872), and South and Southeast Serbia – the surroundings of Vranje and Sićevo Gorge (Pančić 1874). In the Flora of Serbia, Cincović & Kojić (1976) reported the species' presence in Serbia only as a cultivated plant. However, recently, an established population of the species was found in the Banat region, on the shores of Kraljevac pond near the village of Mramorak (Tomović *et al.* 2022).

Lakušić *et al.* (2018) treated this species as allochthonous in Serbia with unconfirmed naturalisation. The newly found populations are situated in populated areas, all in the vicinity of roads. The species was recorded in three localities close to Trstenik, comprising an area of *ca.* 20 m^2 with fewer than 100 well established clonal individuals in the village of Odžaci, *ca.* 10 m^2 with fewer than 100 clonal individuals in Gornji Ribnik, and *ca.* 15 m^2, with more than 250 clonal individuals by the side of the road between Stopanja and Koševi. Since *A. donax* is cultivated as an ornamental plant in several private yards in Trstenik and the nearby village of Stopanja, it is likely that the plants found outside the gardens escaped from cultivation. Two localities were also found in the vicinity of Kruševac. The finding in Žabare refers to individuals planted along the roadside by local residents years ago. In addition to the typical form, *A. donax* var. *versicolor* (Mill.) Stokes is also present here. The population comprises *ca.* 250 individuals. Subsequent attempts made by the local residents to remove the plants were unsuccessful, with the plants growing denser and well established by early summer. However, on our second visit in late summer, evidence of a second eradication attempt using chemical agents was observed. New shoots were visible, suggesting regeneration, thus if eradication was successful, it will only be visible next year. In the village of Razbojna the species occupies *ca.* 10 km^2 with *ca.* 50 clonal individuals. No evidence of generative reproduction was found in any of the studied subpopulations.

A few small stands of *A. donax* growing outside residential yards and maintained horticultural areas were also observed along the roadside in Klokočevac near Donji Milanovac (Lazarević P. & Kabaš E., *pers. comm.*), at

a temporary landfill site between Vražogrnac and Zaječar (near the Starbag asphalt plant, Lazarević P. & Kabaš E., *pers. comm.*), and near the roadside in the Kombinat settlement in Negotin (Kabaš E. & Stanković V., *pers. comm.*).

The species is considered invasive in 99 countries, and is regarded as one of the oldest invasive plant species in the world (Goolsby *et al.* 2023). Previously, it was primarily planted as a source of material for construction, fencing, and erosion control, and also as an ornamental plant (Goolsby *et al.* 2023). Recently, new applications have emerged, including as a source of biomass for biofuel production and for the removal of heavy metals in sewage treatments (Goolsby *et al.* 2023). Since such applications are also being considered in Serbia (Djurić *et al.* 2021; Perendija *et al.* 2024), before recommending them special attention should be devoted to the species' invasive potential, since its sporadic establishment in Serbia has been confirmed (Tomović *et al.* 2022).

***Buxbaumia viridis* (Moug. ex Lam. & DC.) Brid. ex Moug. & Nestl., fam. Buxbaumiaceae (moss, bryophyte)**
Contributors: Constantin-Ciprian Bîrsan and Ana-Maria Moroșanu
Geographical focus: Romania
New record and noteworthy data: A rare and Red listed species. A Bern Convention Species. These are the first records for the Nemira Mountains, Romania.
Specimen data: The Eastern Carpathians: **1**) Nemira Mountains, Podișul Bobișca, N 46.171963°, E 26.233536°, 1082 m a.s.l.; 4 August 2025; det. Bîrsan C-C, Moroșanu A-M, Ștefănuț S., 23 sporophytes; **2**) Vrancei Mountains, Culmea Lăcăuți, N 45.800979°, E 26.263402°, 1068 m a.s.l.; 7 August 2025; det. Bîrsan C-C, Moroșanu A-M, Ștefănuț S., 13 sporophytes; **3**) Buzău Mountains, Clăbucetele Intorsurii Buzăului, N 45.775226°, E 26.258873°, 1037 m a.s.l.; 7 August 2025; det. Bîrsan C-C, Moroșanu A-M, Ștefănuț S., 6 sporophytes; **4**) Buzău Mountains, Depresiunea Comandău, N 45.769480°, E 26.299720°, 1042 m a.s.l.; 7 August 2025; det. Bîrsan C-C, Moroșanu A-M, Ștefănuț M-M, Ștefănuț S., 14 sporophytes; **5**) Nemira Mountains, Culmea Nemira, N 46.173525°, E 26.256755°, 1011 m a.s.l; 20 August 2025; det. Ștefănuț M-M, Moroșanu A-M, Ștefănuț S., 14 sporophytes.
Voucher: Photo documentation by Moroșanu A-M.

The reports of *Buxbaumia viridis* from the Nemira Mountains are new for this region, occur outside protected areas, and fill the distributional gap between the Hășmaș Mountains (Tomović *et al.* 2023) and the Vrancei Mountains (Ștefănuț *et al.* 2023). The Nemira Mountains are a vital biogeographical corridor, promoting gene flow throughout the Carpathian region and bridging disjunct populations of *B. viridis*, with critical implications for the species` genetic diversity.

The sporophytes of *B. viridis* were found in spruce-fir forests on rotten wood, along with *Blepharostoma trichophyllum* (L.) Dumort., *Lepidozia reptans* (L.) Dumort., *Nowellia curvifolia* (Dicks.) Mitt., *Radula complanata* (L.) Dumort., *Riccardia palmata* (Hedw.) Carruth., and *Herzogiella seligeri* (Brid.) Z. Iwats. The co-occurrence with such a diverse bryophyte community is indicative of a well-preserved montane forest ecosystem, including a stable moisture regime, essential for the development of *B. viridis*.

Recently, *Buxbaumia viridis* was reported from the Cernei Mountains of the Southern Carpathians, the southernmost record of this species to Romania (Sabovljević *et al.* 2025). Together, these findings significantly contribute to the biogeographical mapping, conservation prioritisation, and improved ecological understanding of this rare species` regional distribution.

***Coprinopsis melanthina* (Fr.) Örstadius & E. Larss., fam. Psathyrellaceae (fungus, saprotrophic)**
Contributor: Boris Assyov
Geographical focus: Bulgaria
New records and noteworthy data: This is the first record of *C. melanthina* in Bulgaria (Denchev & Assyov 2010) and the first finding in the Balkan Peninsula (Zervakis *et al.* 1998; Ivančević 2002; Mašić & Tkalčec 2003; Karadelev *et al.* 2018).
Specimen data: Varna Province, Dolni Chiflik municipality, W of Novo Oryahovo village (Bulgaria), N 42.987694°, E 27.826611°, *ca*. 10 m a.s.l.; 26 October 2025; leg./det. Assyov B.; on decaying twigs and branches of *Tilia* sp. in a mixed forest.
Voucher: Bulgarian Academy of Sciences, Mycological Collection of the Institute of Biodiversity and Ecosystem Research, (SOMF), 30976.

Coprinopsis melanthina (syn. *Psathyrella melanthina* (Fr.) Kits van Wav.) is a species with distinctive macromorphology (Kits van Waveren 1985; Fouchier 1995; Læssøe & Petersen 2019; Örstadius 2023) which is reliably and easily identified in the field. The recent mycological literature suggests that its range spans across Europe (Örstadius 2023) although it is rarely recorded. While previously not reported from Bulgaria (Denchev & Assyov 2010), here we provide the first finding from this country. In the adjacent areas it is known from the Aegean Basin (Polemis *et al.* 2020).

The present record thus marks the presence of the species in the mainland of the Balkan Peninsula for the first time. The fungus was found in a mixed broadleaf forest with some planted *Pinus nigra* J.F. Arn. In the Bulgarian locality, the fungus showed a notable preference for dead wood of *Tilia* and was almost ubiquitous on this substrate at the time the collection was made. Based on its morphology the Bulgarian specimen is consistent with the descriptions provided by Kits van Waveren (1985), Fouchier (1995), Læssøe & Petersen (2019), and Örstadius (2023).

***Cosmarium formosulum* Hoff 1888*:* 194, fam: Desmidiaceae (green algae, algae)**
Contributors: Ermin Mašić & Sabina Trakić
Geographical focus: Bosnia and Herzegovina
New record and noteworthy data: The first record for Bosnia and Herzegovina.
Specimen data: Bjelašnica Mt., Lokvanjsko Jezero lake N 43.72945°, E 18.20459°, 1760 m a.s.l; September 2025; leg./det. Mašić E, Trakić S.
Vaucher: University of Sarajevo, Department of Biology, Faculty of Science, Laboratory for Systematics and Ecology of Algae, Fungi and Lichens, The collection of Mašić E. s/n.

Research on the diversity of cyanobacteria and algae in the mountain lakes of Bosnia and Herzegovina has a long tradition (Mašić 2020). Unfortunately, more recent and complex research is scarce (Gnjato *et al*. 2022; Šovran *et al*. 2024; Mašić *et al*. 2025). During a preliminary survey of the Lokvanjsko Jezero small mountain lake the species *Cosmarium formosulum* Hoff (Desmidiaceae) was identified. This is the first finding of this type of algae in the freshwater ecosystems of Bosnia and Herzegovina. The species has a very characteristic appearance and can be easily determined and differentiated microscopically from other similar species from the family Desmidiaceae. The species was identified based on the morphological characteristics described in John *et al.* (2002).

This species has been reported mainly in Europe and North America. Its optimal habitats are small bogs and the margins of nutrient-poor ponds and lakes, especially in acidophilic conditions, however, some authors have identified the species in moderately nutrient-rich waters (pH 5–7.9) (John *et al.* 2002). Although it has a cosmopolitan distribution, it seems to be restricted to temperate and arctic-alpine regions (Kouwets in Guiry & Guiry 2025). In addition to *C. formosulum*, the biocenosis of this lake also includes representatives from the genera *Achnanthidium, Closterium, Croococcus, Cyanothece, Cymbella, Encyonema, Epithemia, Euglena, Mougeotia, Navicula, Placoneis, Scenedesmus, Spirogyra, Stauroneis, Syndera* and *Tribonema. Chara virgata* Kützing (Characeae) was also identified along the margins of this extraordinary mountain lake. More detailed research is required to assess the diversity and seasonal dynamics of cyanobacteria and algae in the Lokvanjsko Jezero.

×*Gymnigritella suaveolens* (Vill.) E. G. Camus, fam. Orchidaceae (monocot, vascular plant)
Contributors: Vladan Djordjević and Svetlana Krdžić
Geographical focus: Serbia
New records and noteworthy data: This is the second record of this hybrid in Serbia, and the first record for the region of Western Serbia. The hybrid is protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
Specimen data: Western Serbia, Mt. Golija, Kuzmičko Polje, Šiljbok, N 43.270966°, E 20.352779°, MGRS 34T DN49, ass. *Nardetum strictae* s.l., quartz latite, exp. NE, incl. 10°, 1637 m a.s.l.; 21 June 2025; leg. Djordjević V, Krdžić S.; det. Djordjević V.
Vouchers: Herbarium of the Institute of Botany and Botanical Garden Jevremovac, University of Belgrade, vascular plant collection (BEOU) 72606; photo documentation of Djordjević V.
Geographical focus: Montenegro
New records and noteworthy data: This is the first record of this hybrid in Montenegro.
Specimen data: Montenegro, Mt. Lola, Javorje, N 42.897000°, E 19.235000°, MGRS 34T CN55, subalpine grassland, limestone, 1690 m a.s.l.; 08 June 2024; leg. Krdžić S.; det. Djordjević V.
Vouchers: Photo documentation of Krdžić S.

×*Gymnigritella suaveolens* (syn. *Gymnadenia* × *suaveolens* (Vill.) Rchb. f.) is a natural hybrid between *Gymnadenia conopsea* (L.) R. Br. and *Nigritella rhellicani* Teppner & E. Klein. In most cases, *G. conopsea* contributes to the maternal lineage in the hybrid, whereas *N. rhellicani* provides the pollen line, but the reverse combination of hybrids has also been observed (Hedrén *et al.* 2018). It is distributed in Austria, Bulgaria, France, Germany, Greece, Italy, Switzerland, Croatia, Bosnia and Herzegovina, and Serbia (Djordjević *et al.* 2024 and the references therein; POWO 2025). The hybrid was recorded for the first time for Serbia on Mt. Kopaonik (Treska) in the region of Central Serbia (Djordjević *et al.* 2024).

The new finding of this hybrid on Mt. Golija is the first record for the region of Western Serbia. This is the first record of this hybrid in the MGRS 34T DN49 10 × 10 km and also in the DN1 50 × 50 km UTM grid cells. Four specimens of × *Gymnigritella suaveolens* were found on Mt. Golija within an area of 500 m², in the community *Nardetum strictae* s.l. According to EUNIS classification, this habitat is officially defined as Habitat 6230: "Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and sub-mountain areas, in Continental Europe)". The following accompanying taxa were

recorded at the site with the hybrid specimens: *Nardus stricta* L., *Festuca nigrescens* Lam., *Avenella flexuosa* (L.) Drejer, *Poa violacea* Bellardi, *Viola dacica* Borbás, *Silene sendtneri* Boiss., *Leucanthemum vulgare* Lam., *Briza media* L., *Campanula cervicaria* L., *C. patula* L., *Veratrum album* L., *Gentiana acaulis* L. and *G. utriculosa* L. The hybrid specimens were found on quartz latite, at an altitude of 1637 m, on a northeast-facing slope with an inclination of 10°. They were recorded at a site where the two parental species grow in sympatry. The population size of *N. rhellicani* (103 individuals) was larger than that of *G. conopsea* (77 individuals). × *Gymnigritella suaveolens* and its two parental species are protected by the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). According to Serbian legislation, *Nigritella rhellicani* is classified as a strictly protected species, whereas *Gymnadenia conopsea* is classified as a protected species in Serbia.

The finding of this hybrid on Mt. Lola is the first record of this hybrid in Montenegro. This is the first record of this hybrid in the MGRS 34T CN55 10 × 10 km and also in the CN 100 × 100 km UTM grid cells. One hybrid specimen was recorded in a subalpine grassland community, on limestone, at an altitude of 1690 m, at a site where the two parental species grow in sympatry. The population size of *G. conopsea* (*ca.* 300 individuals) was larger than that of *N. rhellicani* (*ca.* 150 individuals).

***Heteroxylaria oxyacanthae* (Tul. & C. Tul.) Hai X. Ma, A.H. Zhu & Y. Li, fam. Xylariaceae (fungus, saprotrophic)**
Contributor: Vasilică-Claudiu Chinan
Geographical focus: Romania
New record and noteworthy data: The first record for Romania.
Specimen data: Northeast Romania, Iași County, East of Breazu village, N 47.212813°, E 27.520737°, 106 m a.s.l.; 28 May 2013 (anamorph), 19 September 2013 (teleomorph), on fallen, mummified fruits of *Crataegus monogyna* Jacq.; leg./det. Chinan V.C.
Voucher: Herbarium of Alexandru Ioan Cuza, University of Iași (I) 207460, 207461.

Heteroxylaria oxyacanthae, originally described as *Xylaria oxyacanthae* Tul. & C. Tul. in France where it was collected on fallen fruits of *Crataegus oxyacantha* L. (Tulasne & Tulasne 1863), is considered a rare or possibly overlooked species in Europe (Kujawa & Karasiński 2007). In Romania, it was found on fallen fruits of *Crataegus monogyna* (hawthorn) accumulated from the previous season and partially embedded in the litter within shaded microdepressions, where retained moisture provided suitable conditions for fungal development.

The macroscopic and microscopic features of the Romanian specimens are consistent with the published diagnosis of *H. oxyacanthae* (Kujawa & Karasiński 2007; Rubio *et al*. 2014; Zhu *et al*. 2024). The stromata are pedicellate, 25–45 mm in total length, cylindrical or slightly flattened, with a fertile part measuring 13–19 × 2–3 mm, unbranched or rarely bi- to trifurcate, white to cream-coloured in the anamorph, becoming black in the teleomorph. The conidia are spherical to ovoid, hyaline, measuring 3.2–4.5 × 2.6–3.6 µm. The asci are cylindrical, eight-spored, 120–130 µm in total length, with a spore-bearing part measuring 70–74 × 6–7 µm. The ascospores are unicellular, smooth, ellipsoid to inequilateral, dark brown, and measuring 11–12 × 5–6 µm.

A specimen bearing sexual stromata (voucher number I 207461) was sequenced at ALVALAB (Spain), and the resulting ITS sequence was deposited in GenBank (accession number PX660254). BLAST analyses showed that the ITS sequence generated in this study was identical (100% sequence iden-

tity) to the GenBank sequences assigned to *H. oxyacanthae* from Germany (HQ414587), Spain (MH447520, MH447521, MH447522, MH447523), and Ukraine (PP830452), whereas high similarity (99.5 % sequence identity) was observed with sequences from China (MZ620654, MZ620655).

Although *C. monogyna* is a common species in Romania, *H. oxyacanthae* has not been recorded in other localities despite targeted surveys conducted in various regions between 2013 and 2025. The present record represents the first report of this species in Romania and expands the known distribution range of *H. oxyacanthae* in Europe.

***Hippuris vulgaris* L., fam. Plantaginaceae (dicot, vascular plant)**
Contributors: Dragana Vukov and Miloš Ilić
Geographical focus: Serbia
New record and noteworthy data: A new record of a Critically Endangered (CR) species in Serbia.
Specimen data: Srem, Novi Sad, Sremska Kamenica, an old eutrophic pond in Kamenički Park, on the right bank of the Danube River, N 45.230348°, E 19.852693°; 12 October 2025; leg./det. Vukov D, Ilić M.
Voucher: Herbarium of the University of Novi Sad, vascular plant collection (BUNS) 2-10421.

Hippuris vulgaris is an aquatic plant of circumboreal distribution, extending into high mountain regions of Eurasia and North America (Elven *et al*. 2019). It is a rhizomatous perennial which typically grows in the shallow waters of lakes, ponds and slow-flowing rivers. Globally and in Europe, its population trend is considered stable (Lansdown 2011, 2014). In Serbia, however, *H. vulgaris* is known from only a few localities and is therefore classified as Critically Endangered according to the IUCN criteria (Vučković & Panjković 1999). The nearest known occurrence was recorded near Sremski Karlovci in 1956, while the most recent findings prior to this record were from Apatin and Monoštor (Gornje Podunavlje) in 1998 (Slavnić 1956; Stojšić & Panjković 1998).

As the species inhabits an endangered habitat type which is strongly affected by human disturbance and increasingly threatened by climate change, this new record is of high conservation significance. Further monitoring of its distribution dynamics is essential to assess the persistence and potential recovery of this species in Serbia.

***Lophodermium petiolicolum* Fuckel, fam. Rhytismataceae (fungus, saprotrophic)**
Contributor: Dimitar Stoykov
Geographic focus: Bulgaria
New records and noteworthy data: The second report of *Lophodermium petiolicolum* in Bulgaria and the first records on new host-plants according to Sameva (1985).
Specimens data: 1) The Black Sea coast (southern), Burgas district, near the main road from Ahtopol town to Sinemorets, *ca*. 25 m a.sl., on the dead leaves of *Quercus rubra* L.; 23 August 2003; leg./det. Stoykov D; **2**) Balkan Range (western), near Ponor village, in an oak-hornbeam forest, N 42.923022°, E 23.125753°, *ca*. 959 m a.s.l., on the dead leaves of *Q. dalechampii* Ten.; 7 August 2016; leg./det. Stoykov D; **3**) *idem*., N 42.924275°, E 23.125828°, *ca*. 959 m a.s.l., on the dead leaves of *Q. dalechampii*; 7 August 2016; leg./det. Stoykov D; **4**) Sofia region, Sofia city, Vrana Park, N 42.640042°, E 23.437989°, *ca*. 560 m a.s.l., on the dead leaves of *Q. rubra*, 11 May 2024, leg./det. Stoykov D; **5**) *idem*., N 42.641072°, E 23.438033°, *ca*. 560 m a.s.l., on the dead leaves of *Q. rubra*; 1 June 2024; leg./det. Stoykov D.

Vouchers: Bulgarian Academy of Sciences, Mycological Collection of the Institute of Biodiversity and Ecosystem Research (SOMF), 31889, 31618, 31890, 31737, 31738.

Lophodermium petiolicolum has been reported in Bulgaria only once to date on the dry leaves of *Pyrus communis* L. from Mts Sredna Gora (Sameva 1985). The present findings represent the second records, collected on the fallen leaves of *Quercus dalechampii* in the Balkan range, and on *Q. rubra* near the Black Sea coat and in the Sofia region. This is a possibly overlooked species in Bulgaria.

Dimitrov (1926) reported *Lirula macrospora* (R. Hartig) Darker, as *Lophodermium macrosporum* (R. Hartig) Rehm, on the needles of *Picea excelsa* Link from the Rila Mts. Later, Hinkova (1960) reported *Lophodermium juniperinum* (Fr.) De Not. on *Juniperus communis* L. in Mts Rila. Another species, *Lophodermium culmigenum* (Fr.) De Not. Occurring on the dead leaves of gramineous plants in the Vitosha region (Mt. Vitosha) was reported by Sameva (1978, 1982), while *L. seditiosum* Minter was documented in the Sofia region on *Pinus sylvestris* L. by Pencheva *et al.* (2009). The most common member of the genus *Lophodermium* in Bulgaria is *L. pinastri* (Shrad.) Chevall., collected on the needles of *Pinus sylvestris* L., *P. peuce* Griseb., and *P. leucodermis* Antoine from the Balkan Range, the Sofia and Vitosha regions, Pirin, Mts Sredna Gora, and Mts Rhodopi (according to Dimitrov 1926; Sameva 1978; Pencheva *et al.* 2009).

***Ophrys insectifera* L., fam. Orchidaceae (monocot, vascular plants)**
Contributors: Predrag Lazarević and Milorad Veljković
Geographical focus: Kosovo
New records and noteworthy data: The first record for Kosovo.
Specimen data: Kosovo, Mts Šar Planina, Mt. Ošljak (Prevalac), Popovo Prase peak, N 42.182762°, E 20.965336°, MGRS 34T DM97, limestone, at the edge of a *Pinus heldreichii* forest, *ca*. 1800 m a.s.l.; 8 June 2024; leg./det. Lazarević P, Veljković M.
Voucher: Herbarium of the Institute of Botany and Botanical Garden Jevremovac, Faculty of Biology, University of Belgrade, vascular plant collection (BEOU) 18072.

The native range of this species encompasses most of Europe, primarily within the temperate biome (POWO 2025). Within the Balkan Peninsula, it is fragmentarily distributed across most Balkan countries (Croatia, Bosnia and Herzegovina, Albania, Greece, North Macedonia, Serbia, and Bulgaria), typically occurring in small and isolated populations (Hristovski & Nakev 2024). In Serbia, the species has been recorded from Mt. Tara, Mt. Jadovnik, Mt. Zlatibor, Mt. Vidlič, and the Trešnjica River Canyon (Karadžić *et al.* 2000; Zlatković *et al.* 2005; Djordjević *et al.* 2017). According to Djordjević *et al.* (2017), the assessed threat status for this species in Serbia is Endangered – EN B2ab(iii); D.

Based on available literature, a recent finding on Mt. Šar Planina represents the first confirmed record for the territory of Kosovo (Djordjević *et al.* 2017; Hristovski & Nakev 2024). The species was discovered on a south-facing slope, near a narrow path leading to the summit of Popovo Prase peak. It was located on the partially shaded margins of a *Pinus heldreichii* forest, growing on rocky limestone substrate. Only a few specimens were observed, likely due to insufficient field research.

***Ornithogalum montanum* Cirillo, fam. Asparagaceae (monocot, vascular plant)**
Contributors: Sanja Z. Djurović and Milica Rat
Geographical focus: Serbia
New records and noteworthy data: New sites are given for this species protected in Serbia.
Specimen data: 1) Eastern Serbia, Niš, the Niška Tvrđava fortress, N 43.325828°, E 21.895373°, MGRS 34T EN79, 1 May 2007; leg/det. Milić D., conf. Rat M.; **2)** Southeastern Serbia, the Pčinja River valley, the Monastery of Prohor Pčinjski, N 42.332400°, E 21.895365°, MGRS 34T EM78, 452 m a.sl., 2 May. 2009; leg/det. Rat M.; **3)** Southeastern Serbia, Mt. Rudina, Izvor, N 42.508766°, E 22.522616°, MGRS 34T FN20, 1000 m a.s.l., 26 May 2025; leg/det. Đurović S., conf. Rat M.
Vouchers: Herbarium of the University of Novi Sad, vascular plant collection (BUNS) 25064, 25068, *s.n.*

Ornithogalum montanum occurs in the temperate biome, extending from the Balkan Peninsula and the Apennine Peninsula to Transcaucasia, with a chorotype classified as Mediterranean–Irano-Turanian (Raab-Straube 2022+; Govaerts 2024). Although the epithet "*montanum*" suggests a montane distribution, the etymology of the species' name reflects its original description from the mountainous areas above Naples, Italy (Tenore 1811). Populations are scattered throughout the range, reflecting the distribution of suitable habitats: mainly dry, rocky and open steppe-like environments, often on shallow soils with sparse vegetation. In the continental Balkans, it is also found in wet alluvial meadows alongside rivers, lakes and springs, including periodically flooded, nutrient-rich, mesotrophic or eutrophic grasslands on silty or clayey soils. It also colonises habitats which mimic natural conditions in urban environments (Diklić 1975; pers. obs.). In Serbia, the species is protected by law and included in Annex II of the Regulation on Protected Wild Species of Plants, Animals and Fungi (Official Gazette RS 2010–2016). However, due to the limited knowledge of the species' distribution, no effective protection measures can be taken. Previously published floristic records of *O. montanum* in Serbia are from the vicinity of Niš, Vranje, Kopaonik and Gnjilane (Diklić 1975). Petrović (1882) described *O. nyssanum* based on the specimens collected in Moralije – Ploča, Niš, which was later synonymised with *O. montanum*. While studying the herbarium collections, we found several historical specimens from Serbia: from the Bosilegrad surroundings, collected in 1901 by Urumoff, D. (SOM 12798), from Bujanovac, collected on 15 May 1960 by Jordanović (MKNH *s.n.*) and Nova Varoš, Kokin Brod collected on 12 June 1929 by Ilić, S. (BEOU *s.n.*).

Here we present unpublished floristic records for this protected species in Serbia, based on field surveys and herbarium specimens collected in eastern (Niš) and south-eastern Serbia (Pčinja valley and Mt. Rudina) with more detailed information on the localities in three 10 × 10 km UTM squares, population sizes and potential threat factors. The populations in Niš and Pčinja are relatively large, with more than 250 individuals, whereas the population on Mt. Rudina is very numerous, comprising more than 1000 individuals. No potential threats were identified for the population in the Pčinja Gorge, whereas the population in Niš could be threatened by urbanisation, recreation and tourism. The bulbs of more than 10 individuals on Mt. Rudina had been dug out of the ground and the shoots left in place. It is not known whether this was done by humans or other animals. Additionally, habitat succession presents a low risk of habitat loss.

***Peziza ostracoderma* Korf, fam. Pezizaceae (fungus, ascomycetes)**
Contributors: Željko Savković and Boris Ivančević
Geographic focus: Serbia
New record and noteworthy data: The first report of *Peziza ostracoderma* for Serbia.
Specimen data: Šumadija, Beograd, Municipality of Barajevo. It was found in a private greenhouse where *Quercus robur* L. and *Q. cerris* L. seedlings were grown. The specimen was isolated from the root tips of *Q. robur* in July 2025.
Vouchers: Mycotheca of the Institute of Botany and Botanical Garden Jevremovac, University of Belgrade, Faculty of Biology, fungal collection of the Department of Algology and Mycology – Herbarised material. Isolate numbers: BEOFB1110000, BEOFB1110001, and BEOFB1110002.

This is the first report of *Peziza ostracoderma* from Serbia. A review of the relevant literature (Savić *et al*. 2018) and the database of the National Fungarium in the Museum of Natural History in Belgrade revealed no information about previous findings of this species in Serbia.

Peziza is a large genus of primarily saprotrophic fungi. Based on morphological and molecular evidence, *P. ostracoderma* has also been recorded to form mycorrhiza with oak and beech seedlings in nurseries (Bzdyk 2018) and even as a human pathogen (Kinch *et al*. 2022).

The first specimen from Serbia was documented from the root tips of mycorrhizal *Q. robur* seedlings using molecular identification. PCR amplification of the ITS region using ITS1/ITS4 (White *et al*. 1990) and ITS1F/ITS4 (Gardes & Bruns 1993) primers confirmed the presence of *P. ostracoderma*. The obtained sequences were deposited in the National Center for Biotechnology Information database under accession numbers: PX417914, PX417915, and PX417916 (confirmed homologies 100.00%, 100.00%, and 99.67% respectively).

***Phylloporia ribis* (Schumach.) Ryvarden, fam. *Hymenochaetaceae* (fungus, parasitic)**
Contributors: Gordana Kasom and Sead Hadžiablahović
Geographical focus: Montenegro
New records and noteworthy data: *Phylloporia ribis* is recorded for the first time on the territory of Montenegro.
Specimen data: 1) Danilovgrad Municipality, the village of Tunjevo, Dobro polje, near the Zeta River, at the foot of a living deciduous tree of *Euonymus europaeus*, N 42.6325806°, E 19.0169499°; 10 April 2019; leg. G. Kasom; det. G. Kasom.
Voucher: Photo documentation of G. Kasom.

Phylloporia ribis is recorded for the first time on the territory of Montenegro. According to Berniccnia (2005), it is a cosmopolitan species, with a wide distribution, and can be very common locally. This species has been reported in North America and Eurasia (Jerusalem *et al.* 2025). In the neighbouring countries of Montenegro, it has been recorded in Croatia (Ryvarden & Gilbertson 1994) and North Macedonia (Karadelev *et al.* 2018).

Phylloporia ribis was found close to the Zeta River, within a plant community dominated by *Fraxinus angustifolia* Vahl., with the significant participation of *Ulmus glabra* Huds. and *Quercus robur* L. The plant community has been recognised as *Carici remotae-Fraxinetum oxycarpae* Pedrotti 1970 corr. 1992, a typical community of the alliance *Carici remotae-Fraxinion oxycarpae* Pedrotti ex Pedrotti, Biondi, Allegrezza et Casavecchia in Biondi *et al.* (2014). This community develops on alluvial plains along rivers where the groundwater table is very shallow. Therefore, the substrate remains moist for a good part

of the year, while in autumn and winter these forests can remain flooded for varying periods.

According to Bernicchia (2005), *P. ribis* is a parasitic fungus which grows at the base of living shrubs, on thin trunks and young branches. It prefers the base of *Ribes* spp., but is also found on many other shrubs, where it colonises the cortical areas of the host plant. It is found on the species *Erica arborea* L., *Evonymus europeus* L. and the genera *Quercus, Robinia, Carpinus, Ribes, Pistacia, Genista* and *Ligustrum*. The presence of *P. ribis* on the trees of the above tree species causes very slow white rot (Bernicchia 2005).

Ryvarden & Gilbertson (1994) report that this species is most often found at the base of living trees of *Ribes* spp., and *Euonymus* spp., but it has also been recorded on other living deciduous trees, and more rarely on dead ones, such as *Acer, Arbutus, Berberis, Carpinus, Cistus, Colletia, Cornus, Cotoneaster, Cratageus, Cytisus, Ephedra, Erica, Eucalyptus, Euonymus, Fagus, Fraxinus, Jasminium, Laurus, Ligustrum, Lonicera, Pistacia, Platanus, Prunus, Pyrus, Quercus, Robinia, Rosa, Rubus, Sambucus, Spartium, Sorbus, Ulex, Ulmus* and *Vitis*.

According to the same authors it is widespread in Europe as far as central Fennoscandia (where it is known only from *Ribes*), and its northernmost locality is in Norway (Nordland County).

Phylloporia ribis is usually easily recognised by its small basidiocarps on thin branches or at the base of host trees. It differs from similar species of the genus *Inonotus* P. Karst. by a distinct black zone between the thick spongy tomentum and the hard-shiny context. Microscopically, diagnostic features are abundant small yellow spores and the absence of setae (Ryvarden & Gilbertson 1994; Bernicchia 2005).

However, some authors consider that different forms can be distinguished within *P. ribis* depending on the host species, e.g. f. *arbuti*, f. *euonymi*, f. *lonicerae*, f. *rosae*, and others (Ryvarden & Gilbertson 1994; Wagner & Ryvarden 2002; Bernicchia 2005).

This is confirmed by Jerusalem *et al.* (2025) in their research on the multigene phylogeny of *Phylloporia*, inferred from the large subunit nuclear ribosomal region (LSU), portions of the translation elongation factor 1-α (TEF-1α), and the second largest subunit of RNA polymerase II (RPB2) genes.

Their results confirm that *P. ribis* undoubtedly represents a collective species, whose taxonomic diversity is undoubtedly as varied as that of its host plants (Jerusalem *et al.* 2025). The species has been subdivided into multiple host specific forms, distributed into as many terminal clades as host plants. In the current dataset, it comprises 15 species-level or potential species-level clades or branches, grouped into two variably supported sublineages. The first, well-supported sublineage, comprises *P. ribis* s.s. (f. *ribis*) and the forms: f. *corni*, f. *crataegi*, f. *prunispinosae* and f. *ulm*i, while the second includes three additional forms, f. *euonymi*, f. *rosae*, and f. *ulicis* (Jerusalem *et al.* 2025).

***Scapania curta* (Mart.) Dumort. fam. Scapaniaceae and *Solenostoma gracillimum* (Sm.) R.M. Schust. fam. Solenostomaceae (liverworts, bryophytes)**

Contributors: Jovana P. Pantović and Marko S. Sabovljević

Geographical focus: Serbia

New record and noteworthy data: New data on a rare and red-listed liverwort species in Serbia (Sabovljević *et al.* 2024).

Specimen data: Southeastern Serbia, Mt. Besna Kobila, Kadijina Čuka peak, N 42.52915°, E 22.19919° and N 42.41491°, E 22.27352°, on soil in the shade, spruce plantation, intermixed; 26 July 2022; leg./det. Pantović J, Sabovljević M.

Vouchers: Herbarium of the Institute of Botany and the Jevremovac Botanical Garden, University of Belgrade, Bryophyte collection (BEOU-Bryo), 10047, 10048.

The samples of *S. curta* and *S. gracillimum* were found intermixed on disturbed soil in a spruce plantation, together with other moss species including *Pogonatum urnigerum* (Hedw.) P. Beauv. and *Ditrichum heteromallum* (Hedw.) E. Britton.

Scapania curta is a liverwort species with a circumpolar boreal-montane distribution (Blockeel *et al.* 2014). It is a small calcifuge pioneer species which has often been confused with other tiny *Scapania* species, in particular with *S. scandica* (Arnell & H. Buch) Macvicar, since microscopical examination is needed to confirm identification. In the subalpine and montane zones, it grows mainly in forests; preferring more open sites such as clearings and forest paths and edges (Urmi *et al.* 2020). It was recently assessed as endangered (EN) for Serbia (Sabovljević *et al.* 2024), according to *sensu* B2ab(ii and iv). Namely, there are only a few records of this species in Serbia, several of which are historical, herbarium-unsupported literature data from Mt. Stara Planina (Popović 1966) and the Vlasina region (Podpera 1922; Pavletić 1955), and only one relatively recent record from Mt. Golija, in the vicinity of Odvraćenica (Papp & Erzberger 2005). Since Serbia is predominantly covered in limestone geological bedrock, it is not surprising that this species is rather rare in the country. However, with further investigation we can expect more findings of *S. curta* from other acidic and more humid areas, not only in the country, but also from neighbouring countries such as Albania, Macedonia and Montenegro, where this species has not been recorded to date.

Solenostoma gracillimum is a boreo-temperate species which inhabits base-poor substrates (Blockeel *et al.* 2014). As a pioneer species, it may occur in woodland paths and other disturbed habitats. In the recently published red-list of liverwort species of Serbia (Sabovljević *et al.* 2024), it was assessed as Near Threatened (NT). However, in some neighbouring countries it is considered threatened, and is classified as Vulnerable (VU) in Bulgaria and Endangered (EN) in Montenegro (Hodgetts 2015). The risk status of this species in the country was determined based on criteria B (B2a), due to the lack of other relevant population data. The geographic range of the species is highly fragmented, with a small number of nationally known localities. In Central Serbia there are records from Golija Mt. (Papp & Erzberger 2005), Kopaonik Mt. (Papp *et al.* 2004) and the Vlasina region (Podpera 1922; Pavletić 1955; Papp *et al.* 2012), as well as one rather old record from Kosovo in the surrounding of Kosovska Mitrovica (Pavletić 1955).

In the long term, both species are under threat mainly due to global climate change, specifically alterations in precipitation/temperature patterns. This could lead to the significant loss of suitable habitats as well as changes to range size and distribution. Considering their rarity and risk factors, these species warrant special conservation attention in Serbia.

***Sphaerophorus globosus* (Huds.) Vain., fam. Sphaerophoraceae (fungus, lichenised)**

Contributors: Veselin V. Shivarov and Snezhina Popova

Geographical focus: Bulgaria

New record and noteworthy data: New data on a red-listed lichen species (CR) in Bulgaria (Shivarov *et al.* 2023).

Specimen data: The Balkan Range, the northern slopes of Mt. Vezhen, on siliceous rock, among mosses, 2000 m a.s.l.; 18 June 1964; leg. Petrov S.; det. Zhelezhova B.; rev. Popova S, Shivarov VV.

Voucher: Bulgarian Academy of Sciences, Mycological Collection of the Institute of Biodiversity and Ecosystem Research (SOMF), 31811.

Sphaerophorus globosus is an easily recognisable macrolichen with a fruticose, shrubby-coralloid thallus. Older specimens can be reliably identified by the

presence of thick main branches and a positive blue medullary reaction with Lugol's solution (I+ blue).

During the organisation and digitisation of the lichenological collection housed at SOMF, an old specimen of *S. globosus* lacking a catalogue number was discovered. The specimen was collected from the Balkan Range by Dr. Slavcho Petrov in 1964 and represents the second national record of this critically endangered lichen species. It was previously known from the Vitosha region (Chernata Skala peak) (Popnikolov 1931). The locality at Chernata Skala peak (Mt. Vitosha) was revisited in 2021 during the elaboration of the Red List of lichenised fungi in Bulgaria, but the species was not found. Consequently, it was down listed to CR pending further studies to confirm its regional extinction in Bulgaria (Shivarov *et al.* 2023). However, the newly discovered specimen confirms that the species had a broader historical distribution, while its current presence in Bulgaria remains unknown.

The rarity of this species in Bulgaria and southeastern Europe is likely due to its ecological requirements for a humid, oceanic climate. It is a common species in western Europe and Great Britain, where it can be locally abundant (Cannon *et al.* 2022). Its occurrence becomes increasingly rare eastwards as the climate becomes more continental. The most recent record from the Balkan Peninsula is from southern Greece, Evia, from a mossy trunk of *Castanea* (Malíček *et al.* 2021), representing the first record from Greece. This Greek record is from a typical Mediterranean habitat, which differs markedly from the ecological pattern of the species in Bulgaria. In Bulgaria, both records originate from similar habitats, located between large boulder rocks with moss cover near the upper forest line on northern mountain slopes. Targeted studies in these habitats across Bulgaria are likely to clarify the current status of the species.

***Sphagnum cuspidatum* Ehrh. ex Hoffm. var. *viride* (Flatberg) Lönnell & Hassel, fam. Sphagnaceae (moss, bryophyte)**
Contributor: Miruna-Maria Ștefănuț
Geographical focus: Romania
New record and noteworthy data: A confirmed taxon to Romania.
Specimen data: **1)** The Eastern Carpathians, Harghita County, Mohoș Peatbog, N 46.134787°, E 25.901612°, 1049 m a.s.l.; 8 August 2025; leg./det. Ștefănuț M-M., conf. Ștefănuț S.; **2)** The West Romanian Carpathians, Bihor County, Molhașul Mare de la Izbuc, N 46.592382°, E 22.761701°, 1205 m a.s.l.; 8 October 2025; leg./det. Ștefănuț M-M., conf. Ștefănuț S.
Vouchers: Bryophyte collection of the Herbarium of the Institute of Biology – Bucharest, Romanian Academy, Bryophyte Collection (BUCA), B12590, B12653; photo documentation of Ștefănuț M-M.

Recent studies have confirmed that *Sphagnum cuspidatum* Ehrh. ex Hoffm. and *S. viride* Flatberg are two taxa with morphological differences which cannot be distinguished as separate species based on genetic analysis (Robinson *et al.* 2024). Hence, *S. viride* is now treated as *S. cuspidatum* var. *viride* Lönnell & Hassel (Lönnell & Hassel 2018). *Sphagnum cuspidatum* is a moss species often confused with *S. majus* (Russow) C.E.O. Jensen and both species are present in Romania (Hodgetts & Lockhart 2020).

Sphagnum cuspidatum var. *viride* was documented in water pools of peatbogs along with *S. balticum* (Russow) C.E.O. Jensen, *S. majus,* and *S. tenellum* (Brid.) Pers. ex Brid.

Sphagnum cuspidatum var. *viride* was previously reported in Romania from the Cindrel National Park, N 45.556°, E 23.81825°, 1587 m a.s.l., 31 July 2018, leg. Hájková P. & Hájek M., 2018/081, det. Hájková P., as *S. viride* Flatberg, BRNU 680315.

***Sphagnum medium* Limpr., fam. Sphagnaceae (moss, bryophyte)**
Contributors: Marko S. Sabovljević and Lado Kutnar
Geographical focus: Slovenia
New record and noteworthy data: This record provides new distributional data for a recently described species, with a substantial gap in distribution knowledge. It is a red-listed species associated with habitats of conservation interest (7110 Active raised bogs; Annex V of Habitats Directive (1992)).
Specimen data: Šijec bog within the Pokljuška barja Natura 2000 site (SI3000278), on the Pokljuka Plateau, the peatbog comprises different habitat types, including active raised bogs (7110), transition mires (7140) and bog woodland (91D0); N 46.335278°, E 13.995449°, 7 July 2021; leg. Sabovljević MS, Kermavnar J, Kutnar L.; det. Sabovljević MS.
Voucher: Herbarium of the Institute of Botany and the Jevremovac Botanical Garden, University of Belgrade, Bryophyte collection (BEOU-Bryo), s.n.

Sphagnum medium is a peat-forming moss, from the *Sphagnum magellanicum* species complex. This species was long considered a synonym of *S. magellanicum* Brid. and thus overlooked. However, novel morphological and molecular evidence has clearly delimitated it as a distinct taxon, resulting in its taxonomic reinstatement (Hassel *et al.* 2018). Nevertheless, data on its distribution, biology and ecology remain scarce, making further investigation, especially in Europe, necessary. Recent studies carried out in the US by Nieto-Lugilde *et al.* (2024) focusing on north American species from the *S. magellanicum* complex (incl. *S. medium*) identified considerable genetic distinction where they co-occurred, However, some interbreeding among species from the complex may also occur. The same authors also found species from the complex to exhibit distinct geographic and ecological patterns in the studied area in North America.

In Europe, *S. medium* is considered widespread but scattered, largely due to uneven reports and historical confusion with related taxa such as *Sphagnum magellanicum sensu lato. Sphagnum magellanicum sensu stricto* does not occur in Europe (Hassel *et al.* 2018). *Sphagnum medium* is assessed as stable and Least Concern (LC) at the European level, reflecting its wide range and presumed large European population size (Hodgetts *et al.* 2019), albeit with numerous national reports treated as uncertain (Hallingbäck 2019). According to Hodgetts & Lockhart (2020), it has been mainly reported from northern Europe (Finland, Norway, Sweden, the UK, Ireland, France, Germany, Estonia and Latvia). Hallingbäck (2019) listed many countries in Europe, while also noting its presence to be uncertain. Its apparently wide distribution and non-threatened status at the European level masks regional variation in terms of presence and population size, as the species may be rare, local, or declining in parts of Central and Southern Europe where intact peatlands are fragmented or scarce. Hence, it is considered Vulnerable (IUCN: VU) in Slovenia (Martinčič 2024), and Italy (Puglisi *et al.* 2024), Endangered (IUCN: EN) in Serbia (Sabovljević *et al.* 2024), and non-threatened in Romania (Stefanut *et al.* 2026), where it has recently been reported for the first time (Tomović *et al.* 2024).

The confirmation of this species from the Pohorje region in Slovenia (Lobnik Cimerman *et al.* 2023), has prompted further research since its distribution in Slovenia has long been obscured by records attributed to the *S. magellanicum* complex (e.g. Kutnar & Martinčič 2003; Martinčič 2003).

All peat moss species are listed in the European Habitats Directive (Annex V of the updated version from 1 January 2007). The main habitats for this genus are also listed in Annex I and are of conservation interest. Active raised bogs and active blanket bogs are designated here as priority habitat types.

***Tetraspora gelatinosa* (Vaucher) Desvaux 1818, fam. Tetrasporaceae (green algae, algae)**
Synonyms: *Ulva gelatinosa* Voucher 1803, *T. explanata* C.Agardh 1827, *T. ulvacea* Kützing 1843
Contributors: Ivana Trbojević and Milica Petrović Djurić
Geographical focus: Serbia
New record and noteworthy data: A new record of a rare species, rarely reported in Serbia.
Specimen data: Northwestern Serbia, Mionica, Vrujci Spa, Gornja Toplica River N 44.220385°, E 20.151818°; 19 July 2023; leg./det. Trbojević I, Petrović Djurić M.
Voucher: Herbarium of the Institute of Botany and Botanical Garden Jevremovac, University of Belgrade, Department of Algology and Micology – algae wet collection and herbarium collection (BEOU), 6849.

Tetraspora gelatinosa is a colonial, macroscopic green alga. Colonies are irregular, bladder-shaped, initially firmly attached but later detached, often vesicular and swollen, nodular, reaching up to 20 cm in size, and light to dark green or sometimes brownish in colour. The gelatinous matrix is unstructured and soft; in the peripheral layer, it contains cells clustered in groups of 2 or 4, and in older stages, also 8 or 16. The cells are spherical or, after division, ellipsoidal. The pseudocilia are very long and protrude far from the gelatinous matrix in young colonies only. The chloroplast is cup-shaped, with a basal or slightly laterally displaced pyrenoid. The pyrenoid is homogeneous and surrounded by several starch grains. It inhabits clear and cold freshwater habitats, including springs, streams, rivers, lakes and ponds. It is a catharobic species (John *et al*. 2002).

The species *T. gelatinosa* has a cosmopolitan distribution (Guiry 2018), with most records from temperate climate regions (Richter *et al*. 2014 and the references therein). The species is already known from Serbia, where it has been reported four times, namely from the Beli Drim River near Vrbnica (as *Tetraspora ulvacea*, Krasnići & Marinović 1969), the watersheds of the Visočica and Temštica rivers (Obušković 1993), the Svrljiški Timok River (Simić *et al.* 2002), and from the Kamenica River (Markeljić *et al*. 2025). Only Krasnići & Marinović (1969) provide detailed habitat and thallus morphology descriptions. In other cases, the species is only listed or mentioned as recorded. The details provided in Krasnići & Marinović (1969) remove any doubt that– despite being named *Tetraspora ulvacea* Kütz., their record represents a finding of *T. gelatinosa*.

We report a new locality for the species. We recorded a population of *T. gelatinosa* in the Gornja Toplica River at Vrujci Spa, western Serbia. Well-developed macroscopic colonies were found attached to the riverbed; specimens were collected in the field and subsequently examined in the laboratory, confirming the taxonomic characteristics of *T. gelatinosa*. The colonies were mainly bright green, although darker or brownish specimens were also observed. The structure of the colonies was typically vesicular and swollen and the colonies were generally large (about 20 cm, with some specimens even longer). A nodular structure was observed in the smaller specimens. Microscopy revealed spherical to ellipsoidal cells, actively dividing, in the peripheral layer of the gelatinous matrix. The cells were mainly clustered in groups of four. Individual gelatinous sheaths surrounding groups of recently formed cells were also observed, and pseudocilia were occasionally visible. The average cell diameter was 8.5 µm, comparable to other populations from the temperate zone (Richter *et al*. 2014 and references therein). Single measurements of water quality parameters at the collection site were as follows: temperature 25.3°C, oxygen concentration 11.3 mg/l (saturation 138%), pH 8.8, conductivity 427 µS/cm, TDS 303 ppm, salinity 205 ppm.

Richter *et al.* (2014) speculate that molecular analyses may reveal *T. gelatinosa* to be a complex of cryptic taxa, as existing studies are based only on morphology, and most publications report only occurrence and habitat type. Therefore, reporting on this species with detailed morphological and ecological descriptions, and depositing specimens in herbaria, is necessary for future research.

***Viola orbelica* Pančić, fam. Violaceae (dicot, vascular plant)**
Contributors: Uroš Buzurović and Sanja Z. Djurović
Geographical focus: Serbia
New records and noteworthy data: The second record of a rare and threatened species in Serbia.
Specimen data: **1)** Southeastern Serbia, Mt. Besna Kobila, Babina Poljana, N 42.510848° E 22.210826°, MGRS 34T EN90, 1628 m a.s.l.; 26 Jul 2022; leg/det. Đurović S, conf. Tomović G, Niketić M.; **2)** Southeastern Serbia, Mt. Besna Kobila, Stružina, N 42.488261° E 22.213641°, MGRS 34T EN90, 1624 m a.s.l.; 3 August 2022; leg/det. Buzurović U., conf. Tomović G, Niketić M.
Vouchers: Herbarium of the Natural History Museum in Belgrade (BEO) *s.n.*, photo documentation of U. Buzurović, S. Djurović.

Viola orbelica is an endemic of the Balkan Peninsula and it is known to occur in Bulgaria (Delipavlov 1979; Erben 1985), North Macedonia (Micevski 1995), Greece (Dimopoulos *et al.* 2013) and Serbia (Tomović *et al.* 2016). The first record for Serbia relates to Mt. Dukat in Southeastern Serbia (Tomović *et al.* 2016). During fieldwork in July 2022, we discovered an additional population in Mt. Besna Kobila. The observed individuals are scattered over about 1 km^2 and the population size is estimated to be fewer than 500 mature individuals. The newly reported site is affected by mining activities which may also influence this species' survival.

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COMPREHENSIVE PLANT BIOLOGY

REZIME

Novi i značajni podaci o biljkama, algama i gljivama iz JI Evrope i susednih regiona, 24

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U radu su dati novi i značajni podaci sa područja JI Evrope i susednih regiona za sledeće taksone: zelene alge *Cosmarium formosulum* i *Tetraspora gelatinosa,* gljive *Coprinopsis melanthina, Heteroxylaria oxyacanthae Lophodermium petiolicolum, Peziza ostracoderma* i *Phylloporia ribis,* lišaj *Sphaerophorus globosus,* jetrenjače *Scapania curta* i *Solenostoma gracillimum,* mahovine *Buxbaumia viridis, Sphagnum cuspidatum* var. *viride* i *Sphagnum medium,* dikotile *Hippuris vulgaris* i *Viola orbelica* i monokotile *Arundo donax,* ×*Gymnigritella suaveolens, Ophrys insectifera* i *Ornithogalum montanum*.

Ključne reči: novi nalaz, *Arundo donax, Buxbaumia viridis, Coprinopsis melanthina, Cosmarium formosulum,* ×*Gymnigritella suaveolens, Heteroxylaria oxyacanthae, Hippuris vulgaris, Lophodermium petiolicolum, Ophrys insectifera, Ornithogalum montanum, Peziza ostracoderma, Phylloporia ribis, Scapania curta*, *Solenostoma gracillimum, Sphaerophorus globosus, Sphagnum cuspidatum* var. *viride, Sphagnum medium, Tetraspora gelatinosa, Viola orbelica,* JI Evropa