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Original Scientific Paper

New records and noteworthy data of plants, algae and fungi in SE Europe and adjacent regions, 9

Marko S. Sabovljević[1,2*], Gordana Tomović[1*], Jovana P. Pantović[1], Sanja Z. Djurović[3], Uroš Buzurović[4], Teodor T. Denchev[5], Cvetomir M. Denchev[5], Petya Boycheva[6], Tsonka Dimitrova[6], Aleksandra Marković[7], Aneta D. Sabovljević[1], Sorin Ștefănuț[8], Constantin-Ciprian Bîrsan[8], Elvedin Šabanović[9], Vladan Djordjević[1], Marjan Niketić[4], Sanja Šovran[1], Ermin Mašić[10], Dimitar Stoykov[5], Beata Papp[11], Boris Assyov[5] and Monica Slavova[12]

1 Institute for Botany and Botanical Garden, Faculty of Biology, University of Belgrade, Takovska 43, 11000 Belgrade, Serbia
2 Department of Botany, Institute of Biology and Ecology, Faculty of Science, Pavol Jozef Šafárik University in Košice, Mánesova 23, 040 01 Košice, Slovakia
3 Faculty of Agriculture, University of Niš, Kosančićeva 4, 37000 Kruševac, Serbia
4 Natural History Museum, Njegoševa 51, 11000 Belgrade, Serbia
5 Institute of Biodiversity and Ecosystem Research, Bulgarian Academy of Sciences, 2 Gagarin St., 1113 Sofia, Bulgaria
6 Department of Biology, Medical University Varna, 84 Tsar Osvoboditel Blvd., 9000 Varna, Bulgaria
7 Institute of Chemistry, Technology and Metallurgy, University of Belgrade, Njegoševa 12, 11000 Belgrade, Serbia
8 Institute of Biology – Bucharest, Romanian Academy, 296 Splaiul Independenței, 060031 Bucharest, P.O. Box 56-53, Romania
9 Department of Biology, Faculty of Sciences and Mathematics, University of Tuzla, Univerzitetska 4, 75000 Tuzla, Bosnia and Herzegovina
10 Faculty of Science, University of Sarajevo, Zmaja od Bosne 33–35, 71000 Sarajevo, Bosnia and Herzegovina
11 Department of Botany, Hungarian Natural History Museum, HU-1476 Budapest, Pf. 222, Hungary
12 Faculty of Biology, University of Plovdiv Paisii Hilendarski, 2 Todor Samodumov Str., 4000 Plovdiv, Bulgaria
* column editors, to whom contribution should be sent (botanicaserbica@bio.bg.ac.rs)

ABSTRACT:
This paper presents new records and noteworthy data on the following taxa in SE Europe and adjacent regions: red algae *Lemanea fucina* and *Paralemanea annulata*, parasitic fungus *Anthracoidea pratensis,* saprotrophic fungi *Cyathus olla, Massaria campestris,* and *Xylaria sicula,* stonewort *Chara canescens*, liverworts *Gymnomitrion commutatum* and *Porella baueri*, moss *Acaulon triquetrum*, monocots *Anacamptis laxiflora, Cephalanthera damasonium,* and *Himantoglossum robertianum* and dicot *Jacobaea othonnae* are given within SE Europe and adjacent regions.

Keywords:
new report, *Acaulon triquetrum, Anacamptis laxiflora, Anthracoidea pratensis, Cephalanthera damasonium, Chara canescens, Cyathus olla, Gymnomitrion commutatum, Himantoglossum robertianum, Jacobaea othonnae, Lemanea fucina, Massaria campestris, Paralemanea annulata, Porella baueri, Xylaria sicula,* SE Europe

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***Acaulon triquetrum* (Spruce) Müll. Hal., fam. Pottiaceae (acrocarpous moss, bryophyte)**
Contributors: Jovana P. Pantović and Marko S. Sabovljević
Geographical focus: Serbia
New record and noteworthy data: The second record for Serbia, and the first record for the Bačka region and North Bačka county.
Specimen data: Bačka, the surroundings of the town of Subotica, N 46.09265°, E 19.594211°, on disturbed arable clay soil by the road, 125 m a.s.l.; 28 February 2021; leg. Pantović J, Stevanoski I.; det. Sabovljević M.
Voucher: Herbarium of the Institute of Botany and Botanical Garden Jevremovac, University of Belgrade (BEOU), bryophyte collection Bryo/08715.

Acaulon triquetrum is a submediterranean-subatlantic species which grows in dry, exposed and clayey soils, usually in the lowlands (Casas 2006). This is a minute ephemeral species, yellow to brown in colour, with curved setae and inclined capsules, which clearly separates it from the related *A. muticum* (Smith 1993).

In Europe, it is widespread in the Mediterranean region, from Macaronesia (Madeira, the Canary Islands) in the west to Turkey in the east, extending north to NE Germany, Poland, and Ukraine, reaching the southern Urals in Russia (Blockeel *et al.* 2014). Previously it was recorded in Serbia from the Belgrade area, where it was found growing on the Bežanijska Kosa loess cliff (Ellis *et al.* 2015). This new finding from the Subotica area represents the second known population of *A. triquetrum* within the country, as well as the first reports from the Bačka region and North Bačka county (Pantović *et al.* 2021). Due to its seasonal appearance and small size it can easily be overlooked in field research, hence its distribution and ecology in Serbia are so far insufficiently known.

Its overall population is considered to be stable (Sergio & Porley 2019) and of Least Concern (LC) at the European level (Hodgetts *et al.* 2019). However, it is red-listed in some countries especially in Central Europe, e.g. in the Czech Republic, Poland, Slovakia and Switzerland it is treated as Vulnerable (VU) (Hodgetts & Lockhart 2020). Therefore, the new report is even more significant.

***Anacamptis laxiflora* (Lam.) R. M. Bateman, Pridgeon & M. W. Chase, fam. Orchidaceae (monocot, vascular plants)**
Contributors: Sanja Z. Djurović and Uroš Buzurović
Geographical focus: Serbia
New records and noteworthy data: The first records for *A. laxiflora* in Central Serbia and the third confirmation of the species' occurrence in Serbia. The species is on the CITES list and strictly protected in Serbia.
Specimen data: **1)** Central Serbia, Mt. Radan, Gornji Gajtan, N 42.98328°, E 21.471414°, MGRS 34T EN35, meadow, 1072 a.s.l.; 19 June 2021; leg./det. Djurović S, Buzurović U.; conf. Djordjević V.; **2)** Central Serbia, Mt. Radan, Gornji Gajtan, N 42.977568°, E 21.484036°, MGRS 34T EN35, meadow, 953 a.s.l.; 19 June 2021; leg./det. Djurović S, Buzurović U.; conf. Djordjević V.; **3)** Central Serbia, Mt. Radan, Bogojevac, N 43.038446°, E 21.498678°, MGRS 34T EN46, meadow, 908 a.s.l.; 19 June 2021; leg./det. Djurović S, Buzurović U.; conf. Djordjević V.
Vouchers: Herbarium of the Natural History Museum in Belgrade, the General Herbarium of the Balkan Peninsula (BEO) 99320; Herbarium of the Institute of Botany and Jevremovac Botanical Garden, University of Belgrade (BEOU), vascular plant collection 69607; photo documentation of S. Djurović and U. Buzurović.

The presence of *Anacamptis laxiflora* in Serbia was dubious until recent findings near the town of Preševo in Southern Serbia (Niketić *et al.* 2018) and near the city of Priština in the Kosovo region (Niketić *et al.* 2020). However, previous literature data could not be confirmed by the herbarium specimens (Djordjević *et al.* 2018, 2021). This species is included in the Convention on International Trade of Endangered Species of Wild Fauna and Flora in Appendix II, it is listed as being of Least Concern in Europe (Rhazi *et al.* 2011) and the Mediterranean (Rhazi *et al.* 2010) in the IUCN Red List of Threatened Species, and it is strictly protected in Serbia (Official Gazette RS 2010–2016).

In June 2021 three sites on Mt. Radan were discovered. These are the first records for Central Serbia and the third confirmation of the species' occurrence in Serbia.

***Anthracoidea pratensis* (Syd.) Boidol & Poelt, fam. Anthracoideaceae (fungus, parasitic)**
Contributors: Teodor T. Denchev and Cvetomir M. Denchev
Geographical focus: Greece
New record and noteworthy data: This is the first record of *Anthracoidea pratensis* from Greece.
Specimen data: Evrytania, 1.1 km N of Dhomnista, N 38.76667°, E 21.91667°; on *Carex flacca* Schreb., 870 m a.s.l.; 4 June 1991; leg. Willing, no. 14392; det. Denchev TT, Denchev CM. (B, s/n.).
Voucher: Herbarium of the Botanic Garden and Botanical Museum Berlin, vascular plant collection (B), s/n. Some female flowers of this specimen are infected by *Anthracoidea pratensis*. This smut fungus was examined during a visit to B, in March 2014, within the framework of the SYNTHESYS Project.

Anthracoidea is a large genus of smut fungi comprising 112 species. Their hosts belong mainly to the genus *Carex*. The sori are formed in some of the female flowers of the infected plants, around aborted nuts as ovoid, ellipsoidal or broadly ellipsoidal hard bodies (Denchev *et al.* 2021). It is a cosmopolitan genus, but more widely

distributed in the northern hemisphere. *Anthracoidea pratensis* is distributed in Europe and Asia (Georgia), recorded on *Carex flacca* (Denchev & Minter 2010). On the Balkan Peninsula, it is known from Slovenia (Lutz & Vánky 2009) and Bulgaria (Denchev 2001). This smut fungus is reported here for the first time from Greece.

***Cephalanthera damasonium* Druce, fam. Orchidaceae (monocot, vascular plant)**
Contributors: Petya Boycheva and Tsonka Dimitrova
Geographical focus: Bulgaria
New records and noteworthy data: The first report within the European NATURA 2000 network of the Batova river valley (BG0000102) and the first report in the EU zone of Suhareka (BG0000107).
Specimen data: 1) Northeastern Bulgaria, the Dobrich region, close to underbrush, Sokolnik, N 43.412562°, E 27.892721°; 15 May 2021; leg./det. Boycheva P, Ivanov D.; **2)** Northeastern Bulgaria, the Varna region, the land around Krumovo village, N 43.415983°, E 27.763337°; 15 May 2021; leg./det. Boycheva P, Dimitrova T.
Voucher: Herbarium of Sofia University St. Kliment Ohridski (SO) 108154, 108155.

Cephalanthera damasonium is not a new species for the floristic region of Northeastern Bulgaria (Assyov *et al.* 2012). However, two new records are made within the protected nature reserves of the Batova river valley and Suha River, previously not known there.

The species is included on the lists of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

***Chara canescens* Loiseleur, fam. Characeae (stonewort, algae)**
Contributors: Aleksandra Marković
Geographical focus: Serbia
New records and noteworthy data: Two new sites and the first record of rare male plants are reported for Serbia. So far, only two records are known for *C. canescens*, a rare and strictly protected species in Serbia. These records are confirmed.
Specimen data: 1) Banat, Opovo, Baranda village, Pečena Slatina, N 45.0809062°, E 20.4837406°; 26 April 2021; natural saline pond with muddy substrate; only sterile young specimens found; leg. Ćirić M, Marković A, Vidaković D, Gavrilović B.; det. Marković A.; **2)** Banat, Opovo, Baranda village, Pečena Slatina, N 45.0809062°, E 20.4837406°; natural saline pond with muddy substrate; female and male fertile specimens found; 8 Jun 2021; leg. Marković, A., Vidaković, D.; det. Marković, A.; **3)** Bačka, Selevenjske Pustare Special Nature Reserve, East Degelica, N 46.160926° E 19.918062°; saline watering hole with muddy substrate; only female specimens found; 25 May 2021; leg. Marković A, Vidaković D.; det. Marković A.; **4)** Plava Banja near Kikinda, near the beach (Vojvodina, Serbia), N 45.802983°, E 20.448317°; 19 April 2021; Leg: Ćirić, M., Marković, A., Vidaković, D.; det. Marković, A.; saline pond; young sterile specimens found; **5)** Banat, Kikinda, Plava Banja, near the beach, saline pond; female mature specimens found; N 45.802983°, E 20.448317°; 24 May 2021; leg: Marković A, Vidaković D.; det. Marković A.; **6)** Banat, Kikinda, Plava Banja, near the beach, saline pond; female specimens found; N 45.802983°, E 20.448317°; 1 December 2021; leg./det. Marković A.; **7)** Bačka, Selevenske Pustare Special Nature Reserve, Kilapoš, deep and steep watering hole, with sand substrate; only sterile specimens; N 46.139850°, E 19.915450°; 24 May 2021; leg. Marković A, Vidaković D.; det. Marković A.
Vouchers: University of Belgrade, Institute of Chemistry, Technology and Metallurgy, charophyte collection 60, 65, 69, 70, 74, 80, 90.

The new findings of *Chara canescens* at Pečena Slatina and Degelica reported here are the third and fourth records of this species for Serbia. Previously, it was found only at two localities, Plava Banja near Kikinda (Trbojević *et al.* 2019) and the watering hole at Kilapoš, Selevenske Pustare Special Nature Reserve (Sabovljević *et al.* 2021), after being declared as Extinct in the Wild (EW) by Blaženčić (2014). Here we confirm stable populations at these sites since the species was found again in 2021 at both localities.

All previous specimens were either sterile or female plants, which are typical for *C. canescens*, since most of the populations in Europe contain only parthenogenetic females (Schaible *et al.* 2011). Here, for the first time in Serbia, we report the finding of male plants in Pečena Slatina near Baranda village. Sexual populations, with both female and male plants, are very rare in Europe and have recently been reported in several countries only, such as Austria (Schaible *et al.* 2011), Spain (Cirujano *et al.* 2008) and Italy (Nowak *et al.* 2019), making the Serbian finding especially significant.

Despite having worldwide distribution, *C. canescens* is considered rare in Europe. In the Baltic region it is more frequent with more stable populations (Blindow & Schubert 2003), while it is red-listed in many European countries and regions where inland saline sites prevail (Blaženčić *et al.* 2006; Caisova & Gabka 2009; Korsch *et al.* 2013). It is a strictly protected species in Serbia according to the national legislation (Official Gazette RS 2010–2016).

Chara canescens is a heliophilous species typically growing in brackish waters, preferably shallow, and able to tolerate extreme ion anomalies (Blindow & Schubert 2003; Schubert *et al.* 2016; Trbojević *et al.* 2019).

***Cyathus olla* (Batsch) Pers, fam. Nidulariaceae (fungus, saprotrophic)**
Contributors: Aneta D. Sabovljević and Marko S. Sabovljević

Geographical focus: Croatia
New record and noteworthy data: A rare species and a recent record, new to the county of Istria.
Specimen data: Istria county, Premantura, Škare peninsula, N 44.774072°, E 13.914797°, within a huge moss patch dominated by *Tortella squarrosa* (Brid.) Limpr., open, 6 m a.s.l.; 24 February 2022; leg./det. Sabovljević AD, Sabovljević MS.
Vouchers: private collection MSS.

Gasteral fungi are an interesting group within the Basidiomycota lineage. Even more so are the Nidulariaceae family with the specific body shape similar to a bird's nest, thus capturing the attention of numerous naturalists. The whole genus is characterised by the presence of small-sized (ca. 5–15 mm high) basidiomata with a cup or inverted-bell shape at maturity, with small discoid packets (peridioles) inside. Due to its similarities to bird's eggs in a nest, the genus and species within are commonly called "bird's nest fungi".

However, the species are rarely reported. The survey carried out by Tkalčec *et al.* (2005) noted the lack of any recent record of this peculiar organism in Croatia. Previously reports are rather rare and quite old (Schultzer *et al.* 1866; Gjurašin 1898; Jaap 1916; Moezs 1938; Tortić 1966a, b, 1968, 1993; Kranjčev 1985; Randić 1998). Additionally, no reports refer to the county of Istria and the closest geographic report to the new report here comes from the Rijeka region (Randić 1998). Tkalčec *et al.* (2005) mentioned additional data in private databases, but they remain obscure and unpublished.

Thus, this is the first report from the county of Istria and the first recent record (in the 21st century).

***Gymnomitrion commutatum* (Limpr.) Schiffn., fam. Gymnomitriaceae (liverwort, bryophyte)**
Contributors: Sorin Ștefănuț and Constantin-Ciprian Bîrsan
Geographical focus: Romania
New record and noteworthy data: Reported for the first time for the Iezer-Păpușa Mts.
Specimen data: Southern Carpathians, Iezer-Păpușa Mts., Iezer glaciar ring, Capul Cățunului Peak, Argeș County, N 45.458244°, E 24.957636°, 2246 m a.s.l.; 22 September 2021; leg. Ștefănuț S, Bîrsan C-C.; det. Ștefănuț S.
Voucher: Romanian Academy, Herbarium of the Institute of Biology – Bucharest (BUCA), bryophyte collection B12186.

The samples of *Gymnomitrion commutatum* were found on soil, in the Iezer glaciar ring, near the path leading to the mountain rescue shelter, along with other bryophytes such as *Diplophyllum taxifolium* (Wahlenb.) Dumort., *Gymnomitrion concinnatum* (Lightf.) Corda, *Nardia scalaris* Gray and *Pseudomoerckia blyttii* (Moerch) Vilnet, Konstant., D.G.Long, Lockhart & Mamontov.

The first report of *G. commutatum* in Romania was in 2004, from the Făgăraș Mts. (Blockeel *et al.* 2004; Ștefănuț 2008; Ellis *et al.* 2012) but it has also been reported for the Bucegi Massif (Natcheva *et al.* 2007) and the Parâng Mts. (Ștefănuț 2020), while the oldest known specimens from Romania were found in the Herbarium of the Natural History Museum in Vienna (W 1898-8296), leg./det. K. Loitlesberger, 16 August 1897, as *Marsupella funckii* (F. Weber & D. Mohr) Dumort., rev. S. Ștefănuț, 23 September 2014 (Ștefănuț 2020).

The report of *G. commutatum* for the Iezer-Păpușa Mts. was expected and confirms the changed conservation status of this species to Vulnerable – VU B2ab(ii,iii,iv) (Ștefănuț & Goia 2012; Ștefănuț 2020).

***Himantoglossum robertianum* (Loisel.) P. Delforge, fam. Orchidaceae (monocot, vascular plant)**
Contributors: Elvedin Šabanović and Vladan Djordjević
Geographical focus: Bosnia and Herzegovina
New records and noteworthy data: A confirmed orchid species for the flora of Bosnia and Herzegovina.
Specimen data: Stari Neum, near St. Anthony's church, N 42.9273°, E 17.62936°, MGRS 33T YH15, degradation stage of *Quercus ilex* forest, limestone, ca. 133 m a.s.l.; 1 March 2022; leg. Šabanović E, Ilić B.; det. Šabanović E., Djordjević V.
Voucher: Museum of the Franciscan Monastery in Visoko – Herbarium Collection of Fr. Ivo Radman 00314; photo documentation: E. Šabanović.

Four taxa of the genus *Himantoglossum* Spreng. were known in Bosnia and Herzegovina until recently: *H. adriaticum* H. Baumann, *H. calcaratum* (Beck) Schltr. subsp. *calcaratum*, *H. calcaratum* subsp. *rumelicum* (H. Baumann & R. Lorenz) Niketić & Djordjević and *H. robertianum* (Loisel.) P. Delforge (Šabanović *et al.* 2021). However, according to the recent Checklist of the Orchidaceae of Bosnia and Herzegovina (Šabanović *et al.* 2021), the status of *H. robertianum* in Bosnia and Herzegovina is marked 'L', which means that although published data exists, there is no herbarium or photographic material confirming this finding.

Himantoglossum robertianum is a Mediterranean species, distributed from Morocco to Anatolia and extending along the Atlantic coast to Northern Spain, while it is absent from the Near East (Delforge 2006; Fekete *et al.* 2017). The finding of this species in Stari Neum is the first confirmed record of *H. robertianum* on the territory of Bosnia and Herzegovina, at the same time representing the first record of this species in the MGRS 33T YH15 10 × 10 km UTM grid cell. Previously, this species was recorded only in the locality of Čitluk (Zelenika 2012). During the botanical survey conducted in March 2022 near St. Anthony's church in Stari Neum, eight individuals of *H. robertianum* were found within an area of 100 m². It is assumed that this species

has a wider distribution and a larger population size in the southern part of Bosnia and Herzegovina considering the suitable habitats present there.

***Jacobaea othonnae* (M. Bieb.) C. A. Mey., fam. Asteraceae (dicot, vascular plants)**
≡ *Senecio othonnae* M. Bieb.
Contributors: Marjan Niketić and Gordana Tomović
Geographical focus: Serbia
New records and noteworthy data: Two new sites are given for the rare and strictly protected plant, currently known/confirmed from only two localities in Serbia. These are the first records for Mt. Vlaška Planina and Mt. Ruj Planina, and the second and third records for the region of Eastern Serbia.
Specimen data: 1) Eastern Serbia, Mt. Vlaška Planina, Vrtibog peak (from forester's house to the peak), N 42.992366°, E 22.5994670°, MGRS 34T FN36, beech forest, limestone, ca. 1050 m a.s.l.; 8 July 2012; leg. Niketić M, Tomović G, Đurović S.; det. Niketić M.; **2)** Eastern Serbia, Mt. Ruj Planina, Štrbi Kamik peak, MGRS 34T FN24, rocky ground, pastures and tall-herb vegetation, limestone, 1480 m a.s.l.; 30 June 2016; leg. Niketić M, Tomović G.; det. Niketić M.; **3)** Eastern Serbia, Mt. Ruj Planina, Greben-Vetren, MGRS 34T FN24, rocky ground, tall-herb vegetation, limestone, 1440 m a.s.l.; 19 June 2015; leg./det. Niketić M.
Vouchers: Herbarium of the Institute of Botany and Botanical Garden Jevremovac, University of Belgrade (BEOU), vascular plant collection 36370, 48221; Natural History Museum in Belgrade, General Herbarium of the Balkan Peninsula (BEO) 100109, 100107, 100134.

In Serbia, *Jacobaea othonnae* was recorded on the Stara Planina Mts. (Ravno Bučje) (Adamović 1911), the Prokletije Mts. (Žljeb peak) in the Kosovo and Metohija province (Gajić 1975) and on Mt. Suva Planina in Eastern Serbia (Nikolić *et al.* 1986).

In two new discovered localities this species inhabits its rocky ground, pastures and tall-herb vegetation, as well as beech forests on limestone. The population in Mt. Vlaška Planina is represented by a small number of individuals (ca. 50), spatially restricted, and requiring urgent conservation measures. In Mt. Ruj Planina the population is very stable and consists of several hundred individuals and no threat factors were observed.

***Lemanea fucina* Bory de Saint Vincent, fam. Lemaneaceae (red algae)**
Contributors: Sanja Šovran and Ermin Mašić
Geographical focus: Bosnia and Herzegovina
New record and noteworthy data: The first record for Bosnia and Herzegovina
Specimen data: Bihać, the Una river, near Japodski Otoci, N 44.72361°, E 15.93083°, 347 m.a.s.l.; 6 August 2021; leg./det. Šovran S.
Voucher: Herbarium of the Institute of Botany and Botanical Garden Jevremovac, University of Belgrade (BEOU), Department of Algology, Micology and Lichenology - algae wet collection 6591.

Based on literature data, *Lemanea fluviatilis* (Linnaeus) C. Agardh (Protić 1908; Matoničkin & Pavletić 1959; Blagojević & Hafner 1979, 1980, 1981; Redžić 1991) and *L. sudetica* Kützing (Blagojević & Hafner 1981) are known to be present in Bosnia and Herzegovina. This is the first record of *L. fucina* for Bosnia and Herzegovina. The species was found at a site on the Una river, as macroscopic aggregations in weakly alkaline (8.16) moderately cold (13.5°C), well-aerated (10.35 O_2 mg/l) water on stony substrates. The thallus was cylindrical, branched, olivaceous-green to green in colour. The thallus length ranged from 3.5 to 14.6 cm. It was simply branched, and gradually narrowing toward the base. The spermatangial papillae were in verticils of 2–7, irregular. The cross section through the indernode of a young branch showed no cortical cell filaments surrounding the axial cell filament. The nodal diameter ranged from 432 to 623 µm, the internodal diameter ranged from 299 to 443 µm and the nodal/internodal diameter ratio ranged from 1.3–1.4. The carposporophyte zone was cylindrical, or constricted in the middle, near the nodes. The carpospores were spherical, with the length in the range of 13.2 to 27.1 µm, and the width ranging from 9.9 to 18.5 µm. The chantransia stage produced extensive mats, slightly branched approximately 2 mm long, up to 30 µm in diameter, greenish or bluish green in colour.

Lemanea fucina was reported from North America (Vis & Sheath 1992) and some European countries (Kumano 2002; Eloranta *et al.* 2011; Knappe & Huth 2014). Data on the distribution of *L. fucina* in Southeast Europe are scarce. It is known from Montenegro (Simić & Đorđević 2011), Croatia (Koletić *et al.* 2020) and Serbia (Mitrović *et al.* 2021). The species is considered rare in Europe (Eloranta *et al.* 2011).

***Massaria campestris* Voglmayr & Jaklitsch, fam. Massariaceae (fungus, saprotrophic)**
Contributor: Dimitar Stoykov
Geographical focus: Bulgaria
New records and noteworthy data: This is the first record of *Massaria campestris* in South East Europe and from the Balkans (Voglmayr & Jaklitsch 2011).
Specimen data: Western Sredna Gora Mts., Sofia district, Mt. Lozenska, above Pancharevo dam-lake, N 42.599°, E 23.41789°, on a dead branch of *Acer campestre* L., 712 m a.s.l.; 23 May 2018; leg./det. Stoykov D.
Voucher: Bulgarian Academy of Sciences, Mycological Collection of the Institute of Biodiversity and Ecosystem Research (SOMF) 30489.

The studied specimen with black pseudothecia without a dark clypeus was found on a dead, partly decorticated

branch. The ascospores in the water were dark brown, 3–septate, with rounded or subacute end cells, (52–) 55–69 (–71) × (15–) 15.5–22.5 (–23.5) µm (av. 62.3±4.7 × 18.3±2.1 µm), l/w=(2.8–) 2.9–4.1 (–4.5) (av. 3.5±0.4), n=30.

Massaria pyri G.H. Otth, similar to our find, is restricted to *Malus* spp. and *Pyrus* spp. in Europe and has ascospores of approximately 55–79 × 16–20 µm, and its pseudostromata stain the surrounding wooden tissues yellow. The recently described *Massaria platanoidea* Volgmayr & Jaklitsch, known on the branches of *Acer campestre* and *A. platanoides* L., has bigger ascospores, 68–112 × 19–27 µm, l/w=3–5.2 (Voglmayr & Jaklitsch 2011).

***Paralemanea annulata* (Kützing) Vis & Sheath, fam. Lemanaceae (red algae)**
Contributor: Sanja Šovran
Geographical focus: Serbia
New record and noteworthy data: New localities in Serbia for *P. annulata*, which is considered to be endangered in Serbia.
Specimen data: 1) Eastern Serbia, Mt. Stara Planina, the Dojkinačka river near Dojkinci village, N 43.251667°, E 22.775556°, 952 m a.s.l.; 30 June 2021; leg. Stojanović K.; det. Šovran S.; **2)** Western Serbia, Mt. Golija, the Brusnička river near Brusnik village, N 43.399722°, E 20.361667°, 903 m a.s.l.; 19 June 2021; leg./det. Šovran S.; **3)** Southwestern Serbia, the Uvac Special Nature Reserve, the Mrčki Brook near Družinci village (N 43.347817°, E 19.97786°); 1020 m.a.s.l,; 19 June 2021; leg./det. Šovran S.; **4)** Southwestern Serbia, Sjenica, Kladnica village, the Paljevine Special Nature Reserve, the Studenat river near Prašovići, N 43.41817°, E 20.05551°), 1109 m a.s.l.; 19 June 2021; leg./det. Šovran S.
Voucher: Herbarium of the Institute of Botany and Botanical Garden Jevremovac, University of Belgrade (BEOU), Department of Algology, Micology and Lichenology – algae wet collection 6576, 6580, 6582, 6586.

Paralemenea annulata has been reported in 12 localities in nine rivers of central, western and eastern Serbia. The specimens were found in waters on rocky substrates, in relatively fast, oligotrophic, well aerated waters (Simić & Đorđević 2017). New records of *P. annulata* were made as macroscopic aggregations in moderately fast, alkaline water on stony substrates, at altitudes ranging from 903 to 1020 m. The thallus were simple and unbranched or very rarely branched, dark purple to dark brown in colour. The thallus length ranged from 4.9 to 13.5 cm, and was unstalked. The nodal diameter was in the range of 245 to 614 µm, the internodal diameter of 183 to 457 µm, and the nodal/internodal diameter ratio ranged from 1.2 to 1.4. In the middle of the thallus, the central axis (axial filament) was wrapped in cortical filaments. Radial cells extend from there, consisting of two layers – the proximal does not touch the outer cortex, while the distal is generally Y-branched and attached to the cortex. The spermatangial papillae formed a nodal ring. The carpospores were oval, with the length ranging from 22.2 to 41.2 µm, and the width from 11.8 to 25.2 µm. The *chantransia* stage was approximately 3 mm long.

This species is considered rare in Europe (Kučera & Marvan 2004; Kučera *et al*. 2008; Eloranta *et al*. 2011) and it is red-listed in some European countries and regions (Temniskova *et al*. 2008; Foerster *et al*. 2018).

According to the national legislation (Official Gazette RS 2010–2016), *Paralemanea annulata* is a strictly protected species in Serbia.

***Porella baueri* (Schiffn.) C.E.O. Jensen, fam. Porellaceae (leafy liverwort, bryophyte)**
Contributors: Beata Papp and Jovana P. Pantović
Geographical focus: Northern Macedonia
New records and noteworthy data: A European Data Deficient species (DD) of rather unknown range and high conservation interest (Sabovljević *et al*. 2019). The first report from N. Macedonia.
Specimen data: Jablanica Mts., from Gorna Belica towards Čumin vrv, N 41.22169°, E 20.53989°, alpine zone with limestone rocks, 1723 m a.s.l.; 24 June 2018; leg. Papp B, Pantović JP, Sabovljević MS.; det. Papp B.
Voucher: Hungarian Natural History Museum, Department of Botany, s/n.

This species is rarely reported in general, and seldom recorded since it was considered to be of hybrid origin (*Porella platyphylla* × *Porella cordaeana*). Thus, it is an allopolyploid (*n*=12). *Porella baueri* can be problematic to recognize in the field since it is similar to *P. platyphylla*. However, it can be distinguished by the long decurrent postical lobes and underleaves. The cells in the middle of the antical lobe are somewhat larger than those in *P. platyphylla*. It also has a densely short-ciliate perianth mouth. The female bracts are dentate (Frey *et al*. 2006). No specialized asexual propagules are produced, but the plants may be disseminated by leaf or shoot fragments (Boisselier-Dubayle *et al*. 1998).

Although it is considered to be present in Northern Macedonia (Hodgetts 2015), we could not find any previous locality citation for that area.

***Xylaria sicula* Pass. & Beltrani, fam. Xylariaceae (fungus, saprotrophic)**
Contributors: Boris Assyov and Monica Slavova
Geographical focus: Greece
New records and noteworthy data: This is the first record of *Xylaria sicula* in Greece (Zervakis *et al*. 1999, 2004) and seemingly also the second finding on the Balkan Peninsula after a gap of over a century (see comments below).
Specimen data: Chalkidiki Peninsula, Athos, between the towns of Stavros and Olympiada, approx. N

40.634226°, E 23.756002°, ca. 15 m a.s.l.; 23 December 2019; leg./det. Assyov B, Slavova M.
Voucher: Bulgarian Academy of Sciences, Mycological Collection of the Institute of Biodiversity and Ecosystem Research (SOMF), 30434.

Xylaria sicula is a characteristic species, easily recognized in the field due to its occurrence on fallen olive leaves (*Olea europaea* L.), as well as to its delicate habitus. It is scarcely featured in contemporary mycological literature, but is possibly widespread within the range of olives in Europe. Although a single collection is presented here, the fungus has been regularly encountered in the above spot during our visits throughout the winter months of the year since 2013. The anamorphic state was usually observed, while stromata with perithecia were rarely observed. For representative illustrations of *X. sicula* the reader may consult Moreno *et al.* (2008), Iglesias (2016) and Merino Alcántara (2017). Although characteristic of the remains of *O. europaea*, the species is also reported to occur on the leaves of *Phillyrea latifolia* L. (Moreno *et al.* 2007, 2008). We have so far been unable to obtain a collection from the litter of this plant despite its presence in the above locality.

Xylaria oleagina Thüm. may represent a posterior synonym. It was described from an unspecified place in Dalmatia (Croatia) by Thümen (1884). Its original diagnosis seems to present a number of characters of *X. sicula*. It was said to develop on olive fruits, which is the only striking difference from *X. sicula,* which would normally occur on decaying leaves and was also listed by Thümen (1884). In the presented Greek locality, stomata of *X. sicula* were also present on the olive pits, however, this seems an exception in this species. This is also known from the observations of Graniti (1959). *Xylaria putaminum* Maire & Durieu is another species occurring on olive stones, but it is morphologically distinct (Iglesias 2016; La Rosa *et al.* 2022). Although the synonymy of *X. oleagina* and *X. sicula* seems highly likely, here we prefer to merely draw attention to Thümen's name.

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REZIME

Botanica SERBICA

Novi i značajni podaci o biljkama, algama i gljivama iz JI Evrope i susednih regiona, 9

Marko S. Sabovljević, Gordana Tomović, Jovana P. Pantović, Sanja Z. Djurović, Uroš Buzurović, Teodor T. Denchev, Cvetomir M. Denchev, Petya Boycheva, Tsonka Dimitrova, Aleksandra Marković, Aneta D. Sabovljević, Sorin Ştefănuţ, Constantin-Ciprian Bîrsan, Elvedin Šabanović, Vladan Djordjević, Marjan Niketić, Sanja Šovran, Ermin Mašić, Dimitar Stoykov, Beata Papp, Boris Assyov i Monica Slavova

U radu su prikazani novi i značajni podaci sa područja JI Evrope i susednih regiona o sledećim taksonima: crvenim algama *Lemanea fucina* i *Paralemanea annulata*, parazitskoj gljivi *Anthracoidea pratensis,* saprofitskim gljivama *Cyathus olla, Massaria campestris* i *Xylaria sicula,* pršljenčici *Chara canescens*, jetrenjačama *Gymnomitrion commutatum* i *Porella baueri*, mahovini *Acaulon triquetrum*, monokotilama *Anacamptis laxiflora, Cephalanthera damasonium* i *Himantoglossum robertianum* i dikotili *Jacobaea othonnae.*

Ključne reči: novi nalaz, *Acaulon triquetrum, Anacamptis laxiflora, Anthracoidea pratensis, Cephalanthera damasonium, Chara canescens, Cyathus olla, Gymnomitrion commutatum*, *Himantoglossum robertianum, Jacobaea othonnae, Lemanea fucina, Massaria campestris, Paralemanea annulata, Porella baueri, Xylaria sicula,* JI Evropa