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MADEIRA: on bark of moribund *Erica*, north side of Pico Topeiro, to east of Encumeada, *ca* 1150 m a.s.l., 8 April 2007, *leg*. T.L. Blockeel no. *36/102* (LISU, duplicate in Hb. Blockeel).

AZORES: Terceira: in damp crevice of lava field, Misterio Negro, 10 km N.W. of Angra do Heroismo, UTM 75–87-, *ca* 650 m a.s.l., 15 July 1994, *leg*. J.W. Bates & R. Gabriel, no. *3498* (Hb. Bates); Terceira: on *Laurus* bark in steep forest, Terra Brava, about 1 km N.E. of Algar do Carvão, UTM 82–87-, *ca* 640 m a.s.l, 21 July 1994, *leg*. J.W. Bates & R. Gabriel, no. *3650* (Hb. Bates); Terceira: epiphyte on *Juniperus* in upper caldeira forest, Juncal, about 11 km N. of Angra do Heroismo, 22 July 1994, *leg*. J.W. Bates no. *3682* (Hb. Bates).

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TOM L BLOCKEEL, 9 Ashfurlong Close, Dore, Sheffield S17 3NN, UK. E-mail: Tblockeel@aol.com

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New national and regional bryophyte records, 18

Intending contributors to this column should consult the Instructions for Authors in part 1 of this volume, and should address their contributions to the column editor.

1. **Aloina brevirostris** (Hook. & Grev.) Kindb.

Contributors: H.W. Matcham and J.G. Duckett

Chile: REGION XII MAGALLANES: PROV. DE MAGALLANES: roadside cutting along Route 5, 58 km north of Punta Arenas, 52°21′88.1″S, 71°05′17.1″E, *ca* 20 m a.s.l., *leg.* H.W. Matcham & J.G. Duckett, 6 September 2006 (UMAG, Priv. Herb. J.G. Duckett, Priv. Herb. H.W. Matcham).

Predominately a northern hemisphere species, *Aloina brevirostris* was previously known from the southern hemisphere only from South Africa (Hodgetts, Matcham & Duckett, 1999) and the Alexander Island and James Ross Island group in the Antarctic (Ochyra, Bednarek-Ochyra & Lewis Smith, 1998). At the site in Chile, *A. brevirostris* was associated with *Pterygoneurum ovatum* (Hedw.) Dixon. The Chilean specimens are synoicous, whereas the related *A. catillum* (Müll.Hal.) Broth. is described (Delgadillo, 1975) as being dioicous, cladautoicous or paroicous and has so far been recorded only from Argentina. According to Delgadillo (1975) its taxonomic position requires further study.

2. ***Bryum archangelicum*** Schimp.

Contributors: R. Ochyra and R. D. Seppelt

Heard Island: no locality or habitat details given, 53°05″S, 73°30″E, 19 March 1980, *leg.* J. Jenkin No. *80/115* (Seppelt no. *10743*) (ADT).

Bryum archangelicum is here broadly conceived to include the species long known as *B. inclinatum* (Brid.) Turton (Holyoak, 2004). Because the latter name is a later homonym, this common Holarctic moss has been named *B. amblyodon* Müll.Hal. in recent decades. This reservation is necessary since some authors (e.g. Nyholm, 1993; Zolotov, 2006) still argue for the specific distinctness of these two species. The broadly interpreted *B. archangelicum* is a bipolar species with some intermediate stations in the tropical and subtropical regions of South America (Ochi, 1980 as *Bryum amblyodon*). In the temperate and polar regions of the Southern Hemisphere *B. archangelicum* is scattered in western Patagonia, the Falkland Islands and the Tierra del Fuego archipelago (Ochi, 1982). Moreover, it deeply penetrates the maritime Antarctic, extending along the western coast of the Antarctic Peninsula to central Alexander Island (Ochyra & Ochi, 1986; Ochyra, Lewis Smith & Bednarek-Ochyra, in press) and recently it was also discovered in the Schirmacher Oasis in Dronning Maud Land on the continent (Ochyra & Singh, in press). In the Subantarctic, the species has so far been known from a highly isolated station on Îles Kerguelen (Ochi, 1972) and the present record represents an extension of the species in the Kerguelen Province. The material consists of a single mature capsule which allows an accurate determination.

3. ***Bryum orbiculatifolium*** Cardot & Broth.

Contributors: R. Ochyra and R. D. Seppelt

Heard Island: no locality or habitat details given, 53°05′S, 73°30′E, 19 March 1980, *leg.* J. Jenkin No. *80/097* (Seppelt no. *10997*) (ADT).

Bryum orbiculatifolium is a very characteristic and readily recognised species with deeply concave, orbicular leaves. It has been very occasionally collected in western Patagonia (Ochi, 1982), subantarctic South Georgia (Ochyra, Bednarek-Ochyra & Lewis Smith, 2002) and Tristan da Cunha (Dixon, 1960 as *Bryum cymbifoliellum*). It extends to the northern maritime Antarctic where is known from the volcanic Leskov Island and Candlemas Island in the South Sandwich Islands archipelago (Convey *et al.*, 2001) and Deception Island in the South Shetland Islands (Lewis Smith, 2005a, b, c) and recently, it was also encountered on the continent in the Schirmacher Oasis in Dronning Maud Land (Ochyra & Singh, in press). The report of the species from King George Island in the latter archipelago (Ochyra & Ochi, 1986; Ochyra, 1998) is based on a misdetermination. The discovery of *B. orbiculatifolium* on Heard Island in the Kerguelen Province represents a major extension of its range and confirms its phytogeographical status as an amphiatlantic south-temperate species.

4. ***Bucklandiella didyma*** (Mont.) Bednarek-Ochyra & Ochyra

Contributors: H. Bednarek-Ochyra and R. Ochyra

Australia: NEW SOUTH WALES: Diggers Creek, 24 km N.E. of Mt Kosciusko, 36°21′S, 148°29′E, 1500 m a.s.l., in open *Eucalyptus* forest with introduced *Salix* along stream, on exposed rock besides stream, 9 February 1978, *leg.* H. Streimann no. *5435* (ALTA, H, KRAM). AUSTRALIAN CAPITAL TERRITORY: Namadgi National Park, Mt Gudgenby, 54.5 km SW of Capital Hill, Canberra, 35°46.5′S, 148°54.5′E, *ca* 1720 m a.s.l., rocky pinnacle of Mt Gudgenby, on exposed boulders, 16 January 1985, *leg.* J. A. Curnow no. *268* & H. Lepp (DUKE).

New Zealand: OTAGO: Clinton Valley, wet rocks, *leg.* W. Petrie no. *619* (in Herb. T. W. Naylor Beckett) and *sine numero* (in herb. W. Bell) (H, two specimens).

Bucklandiella didyma is one of the few austral species of the broadly conceived genus *Racomitrium* which had not been considered conspecific with *Racomitrium crispulum* (Hook.f. & Wilson) Hook.f. & Wilson by Clifford (1955). The name has long remained in obsolescence but Deguchi (1984) examined the original material of this species and confirmed its distinctiveness. Bednarek-Ochyra, Ochyra & Buck (1999) outlined the morphological differences between *Bucklandiella didyma* and *B. crispula* (Hook.f. & Wilson) Bednarek-Ochyra & Ochyra and extended its geographical range to south-eastern Brazil. Subsequent revisionary studies of the austral collections revealed that the species is widely distributed on subantarctic islands from South Georgia to the Kerguelen Province, and in Tristan da Cunha, South Africa, and in the northern maritime Antarctic (Ochyra, Lewis Smith & Bednarek-Ochyra, 2008). Its range is now extended to south-eastern Australia and the South Island of New Zealand. Accordingly, *B. didyma* is defined as a pan-south-temperate species and the monographic study of *Bucklandiella* in the Southern Hemisphere (Bednarek-Ochyra & Ochyra, in progress), should precisely establish its geographical range in Australasia.

5. ***Bucklandiella pachydictyon*** (Cardot) Bednarek-Ochyra & Ochyra

Contributors: H. Bednarek-Ochyra and R. Ochyra

Prince Edward Islands: MARION ISLAND: no locality or habitat details given, 53°05′S, 73°30′E, 14 March 1952, *leg.* R.W. Rand no. *3642* (GRO).

Îles Crozet: ÎLE DE LA POSSESSION: summit of Mont Branca, west of Port Alfred, 380 m a.s.l., 46°25′S, 51°50′E, on exposed rock surface, 23 December 1978, *leg.* Bell *1457* (AAS, KRAM).

Bucklandiella pachydictyon is an amphiatlantic south-temperate species which is widely distributed but scattered in the Fuegian region and in the *Nothofagus* zone at the western fringes of southern South America where it extends northward to the Cautin Province of Chile in the Valdivian region (Herzog, 1938), with an isolated location in Central Andes of Bolivia at an elevation of 3600 m (Churchill, Griffin & Muñoz, 2000). In addition, it occurs frequently on subantarctic South Georgia (Bell, 1974) and infrequently on Îles Kerguelen (Cardot, 1916; Ochyra, personal observations), and penetrates southwards into the maritime Antarctic (Ochyra, Lewis Smith & Bednarek-Ochyra, in press). The discovery of the species

on Marion Island in the Prince Edward Islands archipelago and on Île de la Possession in the Îles Crozet archipelago completes its continuous range in the western part of the Subantarctic.

6. ***Entodon concinnus*** (De Not.) Paris

Contributors: Tamás Pócs, B.O. van Zanten and Peter Erzberger

Hungary: GÖDÖLLŐ HILLS: Comit. Pest, Vácrátót, Botanical Garden, in the turf of the Conifer collection, 8 September 1983, *leg.* et *det.* T. Pócs & B.O. van Zanten *s.n.*, *conf*. P. Erzberger, 30 April 2007 (EGR, dupl. in B, BP).

In the checklist of Hungarian bryophytes (Erzberger & Papp, 2004), *Entodon concinnus* was excluded because earlier reports had been considered doubtful by Hungarian authorities (Boros, 1968; Orbán & Vajda, 1983) and no specimen could be located. Recently, T.P. made available several specimens from EGR, which had not been seen during the preparation of the checklist, and one proved to be *E. concinnus*.

Perhaps this species has been overlooked in the past due to a superficial similarity to common species like *Pseudoscleropodium purum* (Hedw.) M.Fleisch., *Pleurozium schreberi* (Willd. ex Brid.) Mitt., or *Calliergonella cuspidata* (Hedw.) Loeske. These species have in fact been confused with *E. concinnus*, as is evident from several incorrectly named specimens in Hungarian herbaria seen by P.E.

The apparent rarity of *E. concinnus* in Hungary is somewhat enigmatic, since there should be sufficient potential growth sites in the limestone districts.

7. ***Grimmia decipiens*** (Schultz) Lindb.

Contributors: Peter Erzberger and Eva Maier

Hungary: BALATON UPLANDS: Comit. Veszprém, on the north face of the hill 'Halápihegy' near Zalahaláp, north of Tapolca, 46°55′50.4″N, 17°27′15.8″E, *ca* 250 m a.s.l., on basalt scree (waste from quarry), *leg*. P. Erzberger no. *10833*, 30 March 2005, *det.* E. Maier, 19 September 2005 (B).

Grimmia decipiens was considered doubtful in the recent checklist of the bryophytes of Hungary (Erzberger & Papp, 2004) because earlier reports had been rejected by Boros (1968) and no specimen had been located. Therefore, the above-mentioned collection is the first confirmed record for Hungary.

8. ***Grimmia elatior*** Bruch ex Bals.-Criv. & De Not.

Contributors: Peter Erzberger, Eva Maier and Péter Szűcs

Hungary: BALATON UPLANDS: Comit. Veszprém, on the hill 'Szentgyörgyhegy' near Tapolca, on basalt, *leg*. J. Szepesfalvi, 8 April 1927, *det.* E. Maier, July 2007 (BP, 159733). The original label on the specimen reads: Herbar. Musei Nat. Hungar. Budapest, Flora Hungarica, Grimmia apocarpa (L.) Hedw. Comit. Zala. In monte 'Szentgyörgyhegy' ad opp. Tapolca. Solo basaltico. 1927.IV.8. leg. J. Szepesfalvi.

This specimen was unnamed by the collector; however, later '*Grimmia apocarpa* (L.) Hedw.' was added in a different handwriting (perhaps by Á. Boros or L. Vajda). During revision of *Schistidium* specimens from BP by P.E. and Wiebke Schröder (Erzberger & Schröder, 2008), the specimen was recognised as *Grimmia* sp. and sent to E.M. for revision, who established its true identity. The collection site on the north side of Lake Balaton is famous for its basalt rocks with the relict fern *Notholaena marantae* (L.) Desv., and interesting bryophytes like *Pterogonium gracile* (Hedw.) Sm., *Saelania glaucescens* (Hedw.) Broth. in crevices, and *Mannia fragrans* (Balb.) Frye & L.Clark, *Oxymitra incrassata* (Brot.) Sérgio & Sim-Sim, *Pyramidula tetragona* (Brid.) Brid. and others in the open grasslands near the top (414 m a.s.l.).

A second Hungarian locality of *G. elatior* was discovered recently. In August 2007, P.E. and P.Sz. collected two specimens of *Grimmia*, which were revised as *G. elatior* by E.M.: Com. Pest, Mt Naszály near Vác, 47°49′30″N, 19°09′50″E, *ca* 550 m a.s.l., on sandstone boulder scree near the summit, associated with *Hedwigia ciliata* var. *leucophaea* Bruch & Schimp., *leg*. P. Erzberger nos. *12613*, *12614* and P. Szűcs, 11 August 2007, *det*. E. Maier, 22 October 2007 (B).

Grimmia elatior is not included in the recent checklist of Hungary (Erzberger & Papp 2004). It is new to the bryophyte flora of Hungary.

9. ***Grimmia lisae*** De Not.

Contributors: Peter Erzberger and Eva Maier

Hungary: BÖRZSÖNY MTS: Comit. Nógrád, on andesite boulders in the valley of the stream 'Kemence-patak' near the village of Diósjenő, *leg.* L. Vajda, 10 April 1955 (sub *Grimmia apocarpa* (L.) Hedw.), *det.* E. Maier, March 2007. Specimen in BP (46335). The original label on the specimen reads: Herbarium Musei Hist. Nat. Hungar. Budapest, Flora Hungarica, Grimmia apocarpa (L.) Hedw. Comit. Nógrád. In rupibus andesiticis vallis rivi Kemencepatak, prope Diósjenő, montes Börzsöny. 10/IV 1955 *Leg.*: Det.: L. Vajda.

This specimen was sent to E.M. for determination during revision of *Schistidium* in Hungarian herbaria by P.E. and Wiebke Schröder (Erzberger & Schröder, 2008).

Grimmia lisae is not included in the recent checklist of Hungary (Erzberger & Papp, 2004), it is a new species in the bryophyte flora of Hungary.

10. ***Orthotrichum pulchellum*** Brunt.

Contributors: V. Plášek and I. Marková

Czech Republic: BOHEMIA: České Švýcarsko National Park, 2.5 km W.N.W. of Chřibská village, valley of Doubický potok stream, loc. 'hájenka Saula', bark of *Fraxinus excelsior*, GPS coordinates (WGS 84) 50°52′21″N, 14°26′48″E, 335 m a.s.l., 3 August 2006. *leg*. I. Marková no. *78/2006*, *det*. V. Plášek (Priv. Herb. Marková).

The specimen cited above is the first collection of this epiphytic moss from the Czech Republic. In

Europe, it is reported from many countries situated mainly along the western seacoasts (from southern Scandinavia to northern Spain). The number of its localities has increased recently and the moss appears to be spreading to the east (Frahm, 2002; Lüth, 2004). In the Czech Republic, it was recorded growing vertically on the bark of *Fraxinus excelsior* at a height of 205 cm above the ground, with an E.N.E. aspect. The size of the population was 2 cm^2, and associated species were: *Brachythecium salebrosum* (Hoffm. ex F.Weber & D.Mohr) Schimp., *Hypnum cupressiforme* Hedw. and *Orthotrichum pumilum* Sw. ex Anon.

11. ***Philonotis polymorpha*** (Müll.Hal.) Broth.

Contributors: R. Ochyra, H. Bednarek-Ochyra and R. D. Seppelt

Macquarie Island: (1) Sawyer Creek Gorge, 54°30′S, 158°53′30.0″E, on rock on steep seepage slope opposite main waterfall gorge, 5 December 1981, *leg.* R. D. Seppelt no. *12109* (ADT, KRAM); (2) Flat Creek Waterfall, S.E. of Cormorant Point, 54°34′28.0″S, 158°52′E, 25 m a.s.l., on peat in hanging moss carpet in splash zone at edge of watercourse, with *Montia fontana*, *Brachythecium*, 5 November 1981, *leg.* R. D. Seppelt no. *11600* (ADT, KRAM).

Philonotis polymorpha is a poorly and still imperfectly known hydrophytic species, growing mostly on stream banks, as well as shores of ponds and lakes, occasionally forming swards of several square metres. The plants can sometimes reach a considerable length, to 30 cm. It is widely distributed on the Southern Ocean islands, including South Georgia (Clarke, 1973 as *P. acicularis*), Prince Edward Islands (van Zanten, 1971 as *P.* cf. *angustifolia*; Ochyra, personal observations), Tristan da Cunha (Dixon, 1937) and Îles Kerguelen from whence it was originally described (Müller, 1883, 1889), and reaches the northern maritime Antarctic (Ochyra, Bednarek-Ochyra & Lewis Smith, 1998). With the present record, its geographical range is markedly extended to subantarctic Macquarie Island in the Australasian sector of the Subantarctic. Accordingly, the phytogeographical status of *P. polymorpha* has to be redefined as circumsubantarctic. This species is omitted from the recently published moss flora of Macquarie Island and it was misnamed *Aulacomnium palustre* (Hedw.) Schwägr. (Seppelt 2004), although the latter species also occurs on the island. The discovery of *P. polymorpha* and the recent addition of *Bucklandiella lamprocarpa* (Müll.Hal.) Bednarek-Ochyra & Ochyra (Bednarek-Ochyra & Ochyra, 2007) increases the number of moss species known from this subantarctic island to 86, with a further four taxa which have not yet been definitely named to species.

12. ***Physcomitrium spathulatum*** var. ***spathulatum*** (Hornsch.) Müll.Hal.

Contributors: H.W. Matcham and J.G. Duckett

Botswana: Tuli Game Reserve, *ca* 200 km south east of Francistown, sandy soil, north bank of the River Limpopo, 22°12′36.5″S, 29°06′34.1″E, *ca* 519 m a.s.l., *leg.* H.W. Matcham & J.G. Duckett, 24 November 2005 (Priv. Herb. J.G. Duckett, Priv. Herb. H.W. Matcham).

13. ***Pterygoneurum ovatum*** (Hedw.) Dixon

Contributors: H.W. Matcham and J.G. Duckett

Chile: REGION XII MAGALLANES: PROV. DE MAGALLANES: roadside cutting along Route 5, 58 km north of Punta Arenas, 52°21′88.1″S, 71°05′17.1″E, *ca* 20 m a.s.l., *leg.* H.W. Matcham & J.G. Duckett, 6 September 2006 (UMAG, Priv. Herb. J.G. Duckett, Priv. Herb. H.W. Matcham).

Pterygoneurum ovatum is new to Latin America. Elsewhere in the southern hemisphere, it is recorded from Antarctica (Lewis Smith, 1985; Ochyra, Lewis Smith & Bednarek-Ochyra, in press) and Australia (Scott & Stone, 1976). At the site in Chile, it was associated with *Aloina brevirostris* (Hook. & Grev.) Kindb.

14. ***Schistidium frigidum*** H.H.Blom **var. *frigidum***

Contributor: Louis Thouvenot

Andorra (Pyrenees): ORDINO: Coma del Forat (Arcalis), UTM 31T CH7519, at base of sheer slope of mica schist crag, 2456 m a.s.l., with *Andreaea rupestris* var. *rupestris* Hedw., *leg.* L. Thouvenot no. *3281*, 15 July 2007, *conf.* H. H. Blom (PC, Priv. Herb. Thouvenot).

Schistidium frigidum has a circumpolar arctic-alpine distribution and in Europe, it is known from the Nordic countries and the Alps (Blom, 1996). This species is unrecorded in the Pyrenees, the Iberian Peninsula (Casas, 2000) and France. The present discovery in Andorra (Eastern Pyrenees) extends its area towards the south-western European high mountains. According to Blom, the species is very variable and the features of the Andorran *S. frigidum* include small cupulate urns, somewhat longer than wide, distinct marginal basal leaf cells (in 1–3 rows), mostly hyaline, with thickened cross-walls, and basal cells near costa wider and thin-walled, forming a conspicuous hyaline group. The vegetative leaves are mostly epilose and the median cells variously smooth or sinuose.

15. ***Scorpiurium sendtneri*** (Schimp.) M.Fleisch.

Contributor: V. Hugonnot

France: ARDÈCHE: Les Vans, Païolive, 4.25988°E, 44.4428°N, *leg.* V. Hugonnot, 28 March 2005, and additional sites in the Païolive district (PC, Priv. Herb. Hugonnot).

Mastracci (2001) reported *Scorpiurium sendtneri* as new to France, from an old herbarium sheet labelled '*Thamnium alopecurum* forme Draguignan' in 'Provence, Draguignan, du pont de clorques a Encapis 8 janvier 1912 Girod ver: Theriot'. The specimen is apparently stored in G but seems to be lost. Cortini Pedrotti (2006, p. 862) writes that after examination of the type specimen of *Thamnobryum cossyrense* (Bott.) A.J.E.Sm. stored in FI, she came to the conclusion that it is identical with *Scorpiurium circinatum* (Brid.) M.Fleisch. & Loeske and not with *S. sendtneri*. This

is in contradiction with the views of Mastracci (2001), who placed it in synonymy with *S. sendtneri*. I (V.H.) have been able to study an isolectotype of *Thamnium cossyrense* Bott. (under PC0080128) and it is equally referable to *Scorpiurium circinatum*. This casts some doubt about the identity of the French specimen of '*Thamnium alopecurum* forme Draguignan' and consequently the latter should be re-evaluated if the specimen can be traced. All the specimens of *Scorpiurium sendtneri* stored in PC have been examined and no additional specimen originating from France could be found. Consequently, *S. sendtneri* is here confirmed for France. It is basically a northern Mediterranean species with radiations in to Macaronesia and south-western Asia. It has recently been added to the African bryoflora, in Morocco at Jbel Bouhalla (Jiménez *et al*., 2002). Walther (1975) uses the informal combination 'monstr. *Microphylla*' to describe the epiphytic monstrous form bearing numerous caducous branchlets bearing reduced leaves. This form has been observed very frequently in south Ardèche, including over calcareous rocks. The basic structure of that form is generally not evident in the field because it is greatly obscured by the profusion of caducuous branchlets (tertiary axes). All the new localities in Ardèche are situated in the Païolive karstic forest, on small vertical and dry calcareous walls, well shaded by the trees in the immediate vicinity. *Scorpiurium sendtneri* has been observed too on the bark of *Quercus humilis* Miller, but this habitat seems to be more exceptional locally.

16. ***Vittia elimbata*** Hedenäs, Vanderpoorten & Goffinet

Contributors: H.W. Matcham, J.G. Duckett and L. Hedenäs

Chile: Region XII Magallanes: Prov. de Ultima Esperanza: Laguna Sofia, *ca* 40 km north-west of Puerto Natales, 51°54′S, 72°59′E, *ca* 111 m a.s.l., *leg.* H.W. Matcham & J.G. Duckett, 7 September 2006, *det.* L. Hedenäs (BM, KRAM, S, UMAG, Priv. Herb. H.W. Matcham).

Vittia elimbata was collected from the edge of the lake at this site, where it would certainly have been inundated periodically; it was possibly washed up by wave action from deeper water. Reassessing the taxonomic position of the Vittiaceae, Vanderpoorten *et al.* (2003) described *V. elimbata* from a single collection in Bolivia at Laguna Ventanani. Gathered from running water on the face of a waterfall at 3810 m a. s. l., it differed from the other two species described in the genus, *viz. V. pachyloma* (Mont.) Ochyra and *V. salina* Hedenäs & J. Muñoz, in lacking a bi- or multistratose leaf border, but had a partly bistratose lamina in the upper part of the leaf. Vanderpoorten *et al.* (2003) synonymized the Vittiaceae into the Amblystegiaceae.

Our collection from Laguna Sofia in the Patagonian steppe represents a markedly southerly extension of range of this aquatic moss, although it is not an entirely unexpected extension phytogeographically, considering the number of other disjunct species found in the Andes and in southern South America.

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T. L. Blockeel[1], 9 Ashfurlong Close, Dore, Sheffield S17 3NN, UK. E-mail: Tblockeel@aol.com
H. Bednarek-Ochyra & R. Ochyra, Laboratory of Bryology, Institute of Botany, Polish Academy of Sciences, ul. Lubicz 46, 31-512 Kraków, Poland. E-mails: Halina.Bednarek@ib-pan.krakow.pl and Ryszard.Ochyra@ib-pan.krakow.pl
Jeffrey G. Duckett, School of Biological Sciences, Queen Mary, University of London, Mile End Road, London, E1 4NS, UK. E-mail: j.g.duckett@qmu.ac.uk
P. Erzberger, Belziger Str. 37, D-10823 Berlin, Germany. E-mail: erzberger@erzfisch.de
Lars Hedenäs, Swedish Museum of Natural History, Department of Cryptogamic Botany, Box 50007, SE-104 05, Stockholm, Sweden. E-mail: lars.hedenas@nrm.se
V. Hugonnot, Le Bourg, 43 270 Varennes Saint Honorat, France. E-mail: vincent.hugonnot@wanadoo.fr
E. Maier, 8, chemin des Cottenets, CH-1233 Bernex-Genève, Switzerland.
I. Marková, Bohemian Switzerland National park Administration, Pražská 52, CZ-407 46 Krásná Lípa, Czech Republic. E-mail: i.markova@npcs.cz
Howard W. Matcham, 21, Temple Bar, Strettington, Chichester, West Sussex, PO18 0LB, UK. E-mail: hwlgmatch@yahoo.co.uk
V. Plášek, Department of Biology and Ecology, University of Ostrava, Chittussiho 10, CZ-710 00 Ostrava 10, Czech Republic. E-mail: vitezslav.plasek@osu.cz
T. Pócs, Research Group for Bryology of the Hungarian Academy of Sciences, Department of Botany, Eszterházy College, Eger, P.B. 222, H-3301, Hungary. E-mail: colura@chello.hu
R. D. Seppelt, Australian Antarctic Division, Channel Highway, Kingston, Tasmania 7050, Australia. E-mail: rod.seppelt@aad.gov.au
P. Szücs, Verő J.u. 1, H-2931 Almásfüzitő, Hungary.

Louis Thouvenot, 11 rue Saint Léon, F-66000 Perpignan, France. E-mail: thouloup@club-internet.fr
B. O. van Zanten, State University Groningen, Biological Centre, Department of Biology of Plants, PO Box 14, NL-9750 AA Haren, The Netherlands. E-mail: bovzanten@home.nl
[1]Column editor, to whom contributions should be sent.

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Notes on some newly recorded bryophytes from Montenegro

The bryophyte flora of Montenegro is still poorly explored, although considerable progress has been made recently. This is reflected in the publication of a checklist based to a large extent on literature reports (Dragićević & Veljić, 2006) and of several comprehensive contributions (Milikić *et al.*, 2001; Veljić *et al.*, 2001; Dragićević *et al.*, 2001, 2003; Martinčič, 2006; Erzberger & Papp, 2007; Papp & Erzberger, 2007).

The present paper reports observations made during a collection trip to the Orjen Mts and the Bjelasica Mts in July 2007. A complete account of the floristic results will be published elsewhere, but here we wish to draw attention to 25 taxa, eight liverworts and 17 mosses, which, to our knowledge, have not yet been documented for Montenegro.

The Bjelasica Mts are one of the few Montenegran mountain ranges composed of siliceous bedrock, while the Orjen Mts are carboniferous limestone. Owing to their situation close to the sea, the Orjen Mts receive an exceptionally high amount of precipitation (~8000 mm/y; Komar, 1995), the runoff from which vanishes almost immediately in the karstic underground. This can lead to very special microsites where erosion exposes patches of subneutral soil from which the bases have been washed out, and where some subneutrophytic and even acidophytic bryophytes that would not be expected in a calcareous mountain region can be observed: *Trematodon ambiguus*, *Pleuridium acuminatum*, *Pohlia andalusica*, *Pogonatum nanum*, *Polytrichum commune* var. *perigoniale* and *Lophozia sudetica* (Table 1, site 6).

Another site that deserves special mention is the region around Zekova glava peak (2020–2080 m a.s.l.) in the Bjelasica Mts (Table 1, sites 14 and 15). Here, in an area with obvious late snow beds, several species new to Montenegro have been found: *Anthelia juratzkana*, *Diplophyllum taxifolium*, *Gymnomitrion concinnatum*, *Marsupella sphacelata*, *Encalypta microstoma*, *Pseudotaxiphyllum elegans* and *Schistidium umbrosum*.

Out of 15 sites visited, novelties are reported from nine sites (Table 1). Nomenclature follows Hill *et al.* (2006) and Grolle & Long (2000). Voucher specimens are held in the Botanical Museum at Berlin–Dahlem (**B**: collected by P.E.) and the Hungarian Natural History Museum at Budapest (**BP**: collected by B.P.). In evaluating additions to the bryoflora of Montenegro, we consulted, in addition to the papers mentioned above, the regional checklists by Düll (1995), Düll *et al.* (1999), Sabovljević & Stevanović (1999), Sabovljević (2000), Ganeva & Natcheva (2003), Martinčič (2003), Natcheva & Ganeva (2005), Colacino & Sabovljević (2006), Sabovljević & Natcheva (2006), and a preliminary version of the check-list of the mosses of south-east Europe (in prep.).

Anthelia juratzkana (arctic-alpine)

15a, on soil, associated with *Gymnomitrion concinnatum*, *Marsupella sphacelata*, *Saelania glaucescens*, *Timmia austriaca*, *leg.* P.E. *12565, 12569*, *conf.* J. Váňa (**B**); **15**b *leg.* B.P. (**BP** 49229/H).

Calypogeia suecica (suboceanic-montane)

8, on decaying wood with *Riccardia palmata*, *leg.* B.P. (**BP** 49230/H). This species, known from six countries in south-east Europe, has perhaps been overlooked. In Serbia, it is a recent addition (Papp & Sabovljević, 2002).

Diplophyllum taxifolium (boreal subarctic-alpine)

14b, in rock fissures, associated with *Bartramia ithyphylla*, *Heterocladium dimorphum*, *leg.* P.E. *12558, rev*. J. Váňa (**B**). This is the first record of the genus *Diplophyllum* for Montenegro.

Gymnomitrion concinnatum (subarctic alpine)

14a, on soil in siliceous rock crevices associated with *Barbilophozia hatcheri*, *Marsupella sphacelata*, *Lophozia sudetica, leg.* B.P. (**BP** 49231/H); **15**a, on soil, associated with *Anthelia juratzkana*, *Marsupella sphacelata*, *Saelania glaucescens*, *Timmia austriaca*, *leg.* P.E. *12561, 12564, 12565, 12573, conf*. J. Váňa (**B**); **15**b, *leg.* B.P. (**BP** 49232/H). *G. concinnatum*, like *A. juratzkana* and *M. sphacelata*, a typical late-snow bed hepatic, has been added to the Serbian list recently (Erzberger & Papp, 2007).

Lophozia ascendens (boreal-montane)

8, on decaying wood with *Lophozia ventricosa*, *Lepidozia reptans*, *leg.* B.P. (**BP** 49233/H); and *leg.* P.E. *12398* (**B**). In Serbia, *L. ascendens* is a recent addition (Papp & Sabovljević, 2002). We have also found it in the Prokletije Mts in Montenegro recently (Papp & Erzberger, unpublished).

Lophozia sudetica (boreal-montane)

6, on soil in limestone rock crevices associated with *Pohlia andalusica* and *P. cruda*, *leg.* B.P. (**BP** 49234/H). **9**, on siliceous rock associated with *Andreaea rupestris*, *leg.* B.P. (**BP** 49235/H); and **14**a, on soil in siliceous rock crevices with *Barbilophozia hatcheri*, *Gymnomitrion concinnatum* and *Marsupella sphacelata, leg.* B.P. (**BP** 49236/H).