nov.; *Hygroamblystegium varium* subsp. *varium* var. *humile* (P. Beauv.) Vanderpoorten & Hedenäs, comb. nov.

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New national and regional bryophyte records, 21

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. ***Acrolophozia fuegiana*** R.M.Schust.

Contributors: J. Váňa, R. Ochyra, M. Lebouvier, B. Cykowska and H. Bednarek-Ochyra

Îles Kerguelen: Grande Terre: Péninsule Courbet: south-eastern slope of Mont Crozier overlooking Val Studer, *ca* 600 m a.s.l., 49°17′36.9″S, 70°00′15.8″E: (1) on thin damp soil in deep shady rock crevices in the fellfield, forming large monospecific patches with scattered plants of *Andreaea flabellata*, *Blindia magellanica* and *Pedinophyllopsis abdita*, 28 December 2006, *leg.* R. Ochyra *3845/06* (with Ch. Brumbt) (KRAM); (2) same locality, on damp soil covering large block, in large monospecific patches with an occasional admixture of scattered shoots of *Bucklandiella pachydictyon*, *Dicranella gremmenii* and *Blindia magellanica*, 28 December 2006, *leg. R. Ochyra 3846/06* (with Ch. Brumbt) (KRAM).

Acrolophozia fuegiana is a member of a small subantarctic genus of three species (Schuster, 1986, 2002), two of which are known to occur on South Georgia (Hässel de Menéndez, 1980). *Acrolophozia pectinata* Hässel is endemic to this island and *A. fuegiana* appears to have its optimum occurrence here. Elsewhere, it is only known from a few records from the Falkland Islands (Engel, 1990) and Isla Grande de Tierra del Fuego (Schuster, 1966; Hässel de Menendez, 1980), where it occurs at alpine sites. The third species, *A. pectinata* R.M.Schust., is a plant of alpine areas in the South Island of New Zealand (Engel & Glenny, 2008). The subantarctic range of *A. fuegiana* is now considerably extended to Îles Kerguelen where it was found at a high elevation of 600 m, which is an equivalent of the alpine zone in the austral cool-temperate region. The large population of the species consists of plants which profusely produce mature perianths. The discovery of *A. fuegiana* on this remote archipelago in the South Indian Ocean results in the change of its phytogeographical status and at present it has to be considered as an amphiatlantic subantarctic species. Likewise, it confirms the close subantarctic affiliation of the genus *Acrolophozia* itself.

2. ***Anacamptodon fortunei*** Mitt.

Contributors: R. Ochyra and H. Bednarek-Ochyra

Lord Howe Island: along trail from Neds Road to Kims Lookout via Malabar, 50−210 m a.s.l, 31°31′S, 159°04′E, scrub rain forest with large basalt boulders, *Malaleuca howeana* and *Cassinia tenuifolia* dominant near ocean cliffs, with *Dryopteris australasica* and *Cryptocarya triplinervis* closed rain forest dominant further inland, 18 November 1981, *leg. D. H. Vitt 28599* (with H. P. Ramsay) (KRAM).

Anacamptodon fortunei is a very distinctive species which differs immediately from all other congeners by having a strong subpercurrent costa and bistratose leaf margins. So far, it has been known only from Japan (Noguchi, 1991) and eastern China on mainland Asia (Gao & Fu, 2002) and here its geographical range is markedly extended to Australasia in the Southern Hemisphere. This seemingly strange distribution pattern is not rare amongst mosses and is exhibited by some other species, for example *Bryum blandum* Hook.f. & Wilson (Ochi, 1972).

3. ***Aneura subcanaliculata*** R.M.Schust.

Contributors: J. Váňa, R. Ochyra, M. Lebouvier, B. Cykowska and H. Bednarek-Ochyra

Île Amsterdam: Cratère Inférieur of Cratères Vénus south of La Roche Godon, 299 m a.s.l., 37°48′49.306″S, 77°33′36.068″E, on spots of soil on the inner side of the crater rim, 27 November 2007, *leg. M. Lebouvier A002/2* (KRAM).

Aneura subcanaliculata was only recently described from subantarctic Prince Edward Islands (Schuster, 1989) and it was subsequently discovered on Île de la Possession in Îles Crozet (Grolle, 2002) and on Île Australia in Îles Kerguelen (Váňa & Gremmen, 2006). Here, its range is expanded to the isolated and orphaned Île Amsterdam. Thus, *A. subcanaliculata* still may be considered as a subantarctic species, nearly endemic to the Kerguelen Province, only slightly penetrating into the south-cool-temperate zone in the South Indian Ocean sector.

4. ***Barbilophozia floerkei*** (F.Weber & D.Mohr) Loeske

Contributors: B. Papp, Cs. Németh and M. Sabovljević

Albania: DISTRICT OF KORÇE (RETHI I KORÇËS): *ca* 1.6 km northwest of village 'Vithkuq', in the limestone gorge of river 'Osum', 40.53772°N, 20.56922°E, *ca* 1250 m a.s.l., 27 May 2007, *leg. Z. Barina, D. Pifkó, Cs. Németh 11856/2*, *det.* B. Papp (BP no. *49607/H*).

This boreal, montane liverwort is not included in the bryophyte checklist of Albania (Colacino & Sabovljević, 2006), which remains among the bryologically least explored countries of Europe (Sabovljević *et al.*, 2001). Korçe is itself one of the least known areas within Albania. According to the checklist of the liverworts and hornworts of Southeast Europe (Sabovljević & Natcheva, 2006), *B. floerkei* is reported from several other Balkan countries (Bulgaria, Macedonia, Montenegro, Romania, Serbia and Slovenia).

5. ***Bryum neodamense*** Itzigs. ex Müll.Hal.

Contributor: Frank Müller

Slovenia: S CERKNICA: Cerkniško jezero: in the area Kotel NW of the village Otok, 45°44′30″N, 14°21′50″E, on sandy wet soil at the edge of the lake, 20 July 2006, *leg. F. Müller (DR 039630)*.

The species is cited in Martinčič (1968) and Pavletić, Martinčič & Düll (1999) for Slovenia, but in a later checklist of Slovenia, Martinčič (2003) excluded the species from the bryoflora of this country, because all the Slovenian records refer to *B. subneodamense* Kindb. (*B. neodamense* var. *ovatum* (Jur.) Lindb. & Arn.). The record mentioned above is therefore the first record of true *B. neodamense* for the country. *Bryum neodamense* is treated as a separate species in Hill *et al.* (2006) and most of the European bryophyte floras, but considered as an inconstant phenotype of *B. pseudotriquetrum* (Hedw.) P.Gaertn., E.Mey. & Scherb. by Holyoak & Hedenäs (2006).

6. ***Campyliadelphus elodes*** (Lindb.) Kanda

Contributors: B. Papp, Cs. Németh and M. Sabovljević

Albania: VELËPOJË: 2 June 1959, *leg. Z. Kárpáti, det.* L. Vajda, *rev.* B. Papp, August 2008 (BP no. *64469*).

The specimen was identified as *Campylium chrysophyllum* (Brid.) Lange by L. Vajda. In addition to the locality name, the specimen label contains a reference to the habitat in the Hungarian language as 'Vitex cserjés', meaning *Vitex* shrub community. The specimen was found by M.S. during a database recording project concerning Balkan material in the Bryophyte Herbarium of the Hungarian Natural History Museum. *Campyliadelphus elodes* has not been reported previously from Albania (Colacino & Sabovljević, 2006), although it is known from numerous Balkan countries (Bulgaria, Croatia, Greece, Montenegro, Romania, Serbia and Slovenia: Sabovljević *et al.*, 2008). The specimen comes from the region of Shkodra, currently regarded as the bryologically richest area in Albania.

7. ***Campylium polygamum*** (Schimp.) Lange & C.E.O.Jensen

Contributors: R. Ochyra, T. Pócs & H. Bednarek-Ochyra

Kenya: Mt. ELGON NATIONAL PARK: 1 km WSW of Koitoboss summit, 3960 m a.s.l., *Carex runssorensis*–*Alchemilla* bogs at the Suam River sources, on peaty soil, 17 January 1992, *leg. E.M. Kungu 9222/F* (EGR, KRAM).

Since the discovery of *Campylium polygamum* in sub-Saharan Africa in the Kilimanjaro Mountains in Tanzania and KwaZulu-Natal Province in South Africa (Ochyra & Pócs, 1992), it was subsequently found on Mount Elgon at three stations in the Ugandan part of this extinct volcano (Ochyra *et al*., 2002). Here, an additional locality of this species is reported from this massif but it lies on the Kenyan side, thus being a new country record. As is the case with records of *C. polygamum* in Uganda which are at high elevations of 4000–4120 m, the new locality is situated in the summit part of the mountain in the afro-alpine zone.

8. ***Cephalozia bicuspidata*** (L.) Dumort.

Contributors: J. Váňa, R. Ochyra, M. Lebouvier, B. Cykowska and H. Bednarek-Ochyra

Îles Kerguelen: GRANDE TERRE: Péninsule Courbet: Plateau des Frondrières between Riv. des Américains et Riv. des Glaciers west of Baie de l'Aurore Australe, on the summit of 'peak 275', 275 m a.s.l., 49°21′27.296″S, 70°01′44.288″E, on dry soil in rock crevices, associated with *Hygrolembidium ventrosum*, *Dicranella gremmenii* and *Philonotis scabrifolia*, 12 December 2006, *leg. R. Ochyra 2462/06* (KRAM).

Île Amsterdam: between Cratère Inférieur and Cratère Supérieur of Cratères Vénus south of La Roche Godon, 308 m a.s.l., 37°48′55.566″S, 77°33′33.494″E, on wet walls

in a hole, associated with *Calypogeia fissa*, 27 November 2007, *leg. M. Lebouvier A006/1* (KRAM).

Cephalozia bicuspidata is a bipolar species, having basically a pan-Holarctic range in the north and numerous transitional stations in the Neotropics and Africa. In the Southern Hemisphere it has apparently a pan-south-temperate distribution, ranging from southern South America, through Tristan da Cunha and South Africa to Tasmania. In the Subantarctic it has so far been recorded from South Georgia, Marion Island in the Prince Edward Islands and Île de la Possession in Îles Crozet (Váňa, 1988) and here its range is extended to Îles Kerguelen, the largest archipelago in this biome, and Île Amsterdam in the southern cool-temperate zone. The plants collected here are sterile but otherwise they fit well morphologically other austral populations of this species. With the discoveries of *Acrolophozia fuegiana* (contribution 1 in this paper) and *Cephalozia bicuspidata* the known hepatic flora of Îles Kerguelen is increased to 40 species (Váňa & Gremmen, 2006; Váňa *et al*., 2009), while the discovery of *Aneura subcanaliculata* and *Lophocolea variabilis* (contributions 3 and 15 in this paper) and *Cephalozia bicuspidata* have augmented the hepatic flora of Île Amsterdam to 18 species (Grolle, 2002).

9. ***Distichium capillaceum*** (Hedw.) Bruch & Schimp.

Contributors: R. Ochyra and M. Lebouvier

Îles Kerguelen: GRANDE TERRE: Presqu'île Jeanne d'Arc: north-westernmost part of the peninsula, on the plateau and cliff overlooking the right-hand side of Ravin du Charbon, *ca* 1 km west of Port-Jeanne d'Arc, 153 m a.s.l., 49°33′31.8″S, 69°48′52.4″E, on stony slope forming large pure tufts on damp soil in rock crevices on steep stream bank, 3 December 2006, *leg. R. Ochyra* No. *1198/06* (KRAM).

Distichum capillaceum is a bipolar species with numerous intermediate stations in the mountains throughout the tropics. In the Southern Hemisphere, the species is frequent in southern South America and in the maritime Antarctic where it extends to lat. 72°05′S on Alexander Island (Ochyra, Lewis Smith & Bednarek-Ochyra, 2008). Moreover, it is scattered in south-eastern Australia, Tasmania and New Zealand. These two widely separated centres of occurrence are now bridged by the locality discovered on Îles Kerguelen which are situated roughly mid-way between them. In the absence of sporophytes the plants from this archipelago are interpreted as *D. capillaceum* mostly by default, since the sterile plants of this species are almost indistinguishable from *D. inclinatum* (Hedw.) Bruch & Schimp., especially the phenotypes with short-subulate leaves. The latter is exceedingly rare in the Southern Hemisphere and actually it is known only from a single locality on James Ross Island on the eastern coast of the Antarctic Peninsula, whereas *D. capillaceum* is widespread on subantarctic South Georgia (Newton, 1977) and the fertile plants from this island show striking overall similarity to the plants from Îles Kerguelen.

10. ***Ditrichum gracile*** (Mitt.) Kuntze

Contributors: B. Papp, Cs. Németh and M. Sabovljević

Albania: DISTRICT OF KORÇE (RETHI I KORÇËS): Region 'Mokre Gore', *ca* 1.9 km northeast of village 'Strelcë' in the limestone gorge of brook 'Verba' between Mount 'Melenice' (1213 m) and cliff 'Selca', on shady limestone rock, 40.74820°N, 20.52181°E, *ca* 930 m a.s.l., 23 May 2007, *leg. Z. Barina, D. Pifkó, Cs. Németh 11649/3*, *det.* B. Papp (BP, no. *175977*).

This species is absent from the bryophyte checklist of Albania (Colacino & Sabovljević, 2006). According to the checklist of the mosses of South-Eastern Europe (Sabovljević *et al*., 2008) it is currently known from the following Balkan countries: Bulgaria, Bosnia-Hercegovina, Montenegro, Romania, Serbia and Slovenia.

11. ***Grimmia crinita*** Brid.

Contributor: B. Papp

Hungary: GYŐR-SOPRON-MOSON COUNTY: Fertőrákos village, Kőfejtő (quarry), 47°42′37.4″N, 16°38′42.3″E, limestone wall, 165 m a.s.l., 28 August 2008, *leg. et det. B. Papp, conf.* E. Maier, P. Erzberger (BP, no. *175911*).

The village of Fertőrákos is situated at the western border of Hungary near Lake Fertő. Mining activity (aimed at the production of large limestone boulders for construction purposes) has left huge excavations in the calcareous bedrock. The species was found at the entrance of the mine on a large northwest facing vertical rock wall. Except for several small patches of *G. crinita*, no other species were found on the wall. This submediterranean *Grimmia* species was previously unknown in Hungary (Erzberger & Papp, 2004), although it is present in Austria (Düll, 1984), which is the closest neighbouring country to the new locality.

12. ***Gymnostomum lanceolatum*** M.J.Cano, Ros & J.Guerra (*Gymnostomum calcareum* var. *lanceolatum* (M.J.Cano, Ros & J.Guerra) Sérgio)

Contributor: Frank Müller

Sardinia: NUORO: Oliena E: *ca* 2 km SE of Su Gologone, 40°17′16″N, 9°30′07″E, on limestone rocks, 24 March 2008, *leg. F. Müller (DR 039628*).

The species was described by Cano, Ros & Guerra (1994) from Spain. Recently the species has been recorded from many new localities in the Mediterranean area from Turkey, Croatia, Greece, Italy, Spain, and Morocco (Aleffi, Sabovljević & Tacchi, 2004). In Italy it was previously known only from Apulia (Aleffi *et al.*, 2004) and from Campania (Sérgio, 2006). Sérgio (2006) has reduced the species to a variety of *G. calcareum*, but this view is not generally accepted.

13. ***Gymnostomum viridulum*** Brid.

Contributor: B. Papp

Hungary: VAS COUNTY: Cák village, Kőfejtő (quarry), metamorphic rocks containing lime, 47°21′31.6″N, 16°30′57.6″E, 320 m a.s.l., 28 August 2008, *leg. et det. B. Papp* (BP, no. *175976*); BUDAPEST COUNTY: Mt Sas-hegy in Budapest, 47°28′56.1″N, 19°01′06.8″E, open dolomite grassland, on soil in a rock crevice, 250 m a.s.l., 28 March 2008, *leg. et det. B. Papp* (BP, no. *175975*).

The village of Cák is on the western border of Hungary. In the small quarry mainly pebbly conglomerate rocks are present consisting of dolomite, limestone, marly limestone, schist, and gneiss. *Gymnostomum viridulum* was found at the foot of large vertical walls with a large number of axillary gemmae, and the individuals were embedded in a cyanobacterial crust. A second specimen of the same species was found in material collected inside the capital territory of Hungary, in a small nature reserve that holds many rare species of dolomitic rocky grasslands. Some historical collections have also been made at this locality and a revision of *Gyroweisia* specimens has led to the conclusion that the species has been present on the hill since the 1950s. The label of the earliest of these specimens reads as follows: Comit. Pest, in pedem montis Sashegy, Budapest. 25.06.1954, *leg. et det. L. Vajda* as *Gyroweisia tenuis* (Hedw.) Schimp., *rev.* B. Papp (25.12.2008) (BP, no. *27463*).

A further historical *Gyroweisia* specimen from the herbarium of the Hungarian Natural History Museum, Budapest, was also revised as *Gymnostomum viridulum*. The collection data read as follows: Comit. Komárom, in rupibus calcareis supra pag. Dunaalmás [Komárom-Esztergom County, on limestone rocks at Dunaalmás village], 150 m a.s.l. 28.04.1942, *leg., det.* Á. Boros, as *Barbula convoluta* Hedw., *rev.* I. Galambos (13.12.1983) as *Gyroweisia tenuis* (Hedw.) Schimp., *rev.* B. Papp (25.12.2008) (BP, no. *105454*).

It is clear that this species was mistaken for *Gyroweisia tenuis* by earlier Hungarian bryologists, and has been present in the country at least since the 1940–50s.

14. ***Hygroamblystegium fluviatile*** (Hedw.) Loeske

Contributors: Manuela Sim-Sim, Leena Luís and Michael Stech

Portugal: AZORES: Ilha das Flores (Flores Island), Poço do Bacalhau, on wet rocks close to the waterfall, 25SFD5070, *ca* 50 m a.s.l., 9 September 2008, *leg. Manuela Sim-Sim* (LISU), *s.n.*

Hygroamblystegium fluviatile is a sub-oceanic species, with a wide distribution (Dierssen, 2001). However, this is the first reference for the Azores bryoflora, although the species is already known in Macaronesia, from Madeira and the Canary Islands (Sjögren, 2001). It was collected on Flores Island, growing on very wet rocks close to the foot of a waterfall above a natural pool on the western side of the island. The adjacent vegetation is a remnant of the natural forest, and it was associated with other hygrophytic species such as *Conocephalum conicum* (L.) Dumort., *Homalia webbiana* (Mont.) Schimp and *Pellia epiphylla* (L.) Corda.

15. ***Lophocolea variabilis*** Schiffn.

Contributors: J. Váňa, R. Ochyra, M. Lebouvier, B. Cykowska and H. Bednarek-Ochyra

Île Amsterdam: south-western coast of the island between pointe d'Entrecasteaux and pointe del Cano, 29 m a.s.l., 37°51′45.986″S, 77°31′57.137″E, on ground in tufts of *Dicranoloma subconfine*, 6 December 2007, *leg. M. Lebouvier* A076/5 *(KRAM)*.

Île Saint-Paul: Le Dos de Chèvre on the north-eastern side of the island above Crête de la Novara, *ca* 230 m a.s.l., 38°42′39.01″S, 77°31′35.512″E, on ground in tufts of *Campylopus incrassatus*, 21 November 2007, *leg. M. Lebouvier S005/1* (KRAM).

Lophocolea variabilis, which under the broadly conceived genus *Chiloscyphus* bears the name *C. werthii* J.J.Engel & R.M.Schust., is a rare species which has hitherto been known only from a few records from Îles Kerguelen (Schiffner, 1906; Váňa & Gremmen, 2006). Now its range is extended to two small isolated islands in the South Indian Ocean, namely Île Saint-Paul which lies some 1400 km north of Îles Kerguelen and Île Amsterdam which is situated some 75 km to the north from the former. This discovery makes the phytogeographical status of this species a little uncertain and it may be considered as a south-cool-temperate species slightly penetrating into the Subantarctic. The discovery of this species increased to nine the number of hepatics known from Île Saint-Paul (Grolle, 2002).

16. ***Lophozia lancistipa*** (Grolle) R.M.Schust.

Contributor: J. Váňa

Heard Island: lower part of high scree slope below Round Hill, in mossy *Azorella* feldmark vegetation, *ca* 20 m a.s.l., 13 December 2000, *leg. N. J. M. Gremmen* H-0332 *(ADT, PRC)*.

Lophozia lancistipa was described (as *Andrewsianthus lancistipus* Grolle) from subantarctic Marion Island (Grolle, 1971). Subsequently it was discovered in Prince Edward Island (Gremmen, 1982; Grolle, 2002; Schuster, 2002), on Île de la Possession in Îles Crozet (Grolle, 2002) and on Île Australia in Îles Kerguelen (Váňa & Gremmen, 2006). The range is here expanded to Heard Island; the above mentioned specimen was formerly incorrectly determined as *Lophozia leucorhiza* (Váňa & Gremmen, 2005). With the discovery of this species in Heard Island the known liverwort flora of this island increased to 19 species (Váňa & Gremmen, 2005). The species is a typical example of a subantarctic species endemic to the Kerguelen Province.

17. ***Orthothecium intricatum*** (Hartm.) Schimp.

Contributors: B. Papp, Cs. Németh and M. Sabovljević

Albania: DISTRICT OF KORÇE (RETHI I KORÇËS): *ca* 1.6 km northwest of village 'Vithkuq', in the limestone gorge of 'Osum' river, 40.53772°N, 20.56922°E, *ca* 1250 m a.s.l., 27 May 2007, *leg. Z. Barina, D. Pifkó, Cs. Németh* 11856/4, det. *B. Papp (BP, no.* 175978*)*.

This taxon is absent in the bryophyte checklist of Albania (Colacino & Sabovljević, 2006), although the occurrence of this calcicolous, boreal montane species is a predictable discovery as there are large, high limestone mountain ranges in the country. According to the checklist of the mosses of South-Eastern Europe (Sabovljević *et al*., 2008) it is known from all Balkan countries except the European part of Turkey and Albania.

18. ***Orthotrichum sordidum*** Sull. & Lesq.

Contributors: V. Plášek

Tajikistan: Dushanbe city, central park, bark of *Platanus orientalis*, GPS coordinates (WGS 84): 38°34′51″N, 68°46′97″E, *ca* 900 m a.s.l., 12 June 2008, *leg. V. Plášek* (OP), *s.n.*

The specimen cited above is the first record of this epiphytic moss from Tajikistan. In Middle Asia it has been reported only from Kazakhstan (Mamatkulov, Baitulin & Nesterova, 1998) and Russia, Armenia and Kyrgyzstan (Ignatov, Afonina & Ignatova, 2006). In Tajikistan it was recorded in the central park of the capital city Dushanbe, growing vertically on bark of *Platanus orientalis* at a height of 120 cm above ground, with a NE exposure. The size of the population was 10 cm^2. Associated species were *Orthotrichum affine* Schrad. ex Brid., *O. anomalum* Hedw. and *O. obtusifolium* Brid.

19. ***Plagiobryum zieri*** (Hedw.) Lindb.

Contributors: B. Papp, Cs. Németh and M. Sabovljević

Albania: District of Korçe (Rethi i Korçës): Grammos Mountains (Mali i Grammozit), *ca* 3.8 km southwest of village Dardhë, northern slope of Mount 'Mali Kuk', 40.49722°N, 20.79204°E, on serpentine rock, *ca* 1555 m a.s.l., 21 May 2007, *leg. Z. Barina, D. Pifkó, Cs. Németh 11512*, *det.* B. Papp (BP, no. *175979*).

Plagiobryum zieri is not known from Albania according to the recent checklist of the country (Colacino & Sabovljević, 2006). The presence of this subarctic, subalpine species in the high mountains of the country is not a surprise. It is reported from almost all the Balkan countries except the European part of Turkey, Greece and Albania (Sabovljević *et al.*, 2008).

20. ***Plagiomnium undulatum*** var. ***madeirense*** T.J.Kop. & Sérgio

Contributors: Michael Stech, Manuela Sim-Sim, Soraia Martins and Cecília Sérgio

Portugal: Azores: Ilha das Flores (Flores Island), Alto do Mosteiro, above Caldeira Funda, wet rock by the road, *ca* 500 m a.s.l., 11 September 2008, *leg. M. Stech 08-423* (L).

Plagiomnium undulatum var. *madeirense* was previously known only from Madeira Island (Koponen & Sérgio, 2001). The present collection from Flores Island is the first report of this variety for the Azores. According to the present distribution, *P. undulatum* var. *madeirense* must thus be considered as a Macaronesian endemic taxon. The status of var. *madeirense* needs further study, as it could not be separated from var. *undulatum* by nuclear ribosomal ITS sequences (Stech & Sim-Sim, 2006). At the respective locality on Flores Island, large plants with long-decurrent leaves and wide laminal cells, referred to var. *madeirense*, grew together with smaller plants resembling var. *undulatum*, as well as with extensive mats of large plants of *Calliergonella cuspidata* (Hedw.) Loeske.

21. ***Pohlia lescuriana*** (Sull.) Ochi

Contributor: B. Papp

Hungary: Borsod-Abaúj-Zemplén County: Serényfalva-Kelemér forest reserve at Kelemér village, 48°20′27.8′′N, 20°26′13.9′′E, in a planted Piceetum in the buffer zone, *ca* 330 m a.s.l., 6 July 2006, *leg. P. Ódor, E. Szurdoki, det.* B. Papp, *conf.* P. Erzberger (BP, no. *176042*); Győr-Moson-Sopron County: Ásványráró branch-system of the Danube at Szigetköz region near Ásványráró village, 47°51′07.9″N, 17°31′14.6″E, *ca* 115 m a.s.l., 24 September 2008, *leg. et det. B. Papp, conf. P. Erzberger* (BP, no *176043*).

The species was identified in 2008 during elaboration of material collected from the Serényfalva-Kelemér forest reserve during systematic sampling in the framework of the bryophyte community monitoring project, part of the Hungarian National Biodiversity Monitoring System (Papp, Ódor & Szurdoki, 2005). The specimen from Ásványráró was also found during a monitoring project, in the branch-system of the Danube. This species is absent from the checklist of Hungary (Erzberger & Papp, 2004). It is assumed that it was overlooked or mistaken for a *Bryum* species with rhizoidal gemmae, and it is expected that thorough sampling in the future will reveal additional localities.

22. ***Polytrichum piliferum*** Hedw.

Contributors: R. Ochyra and M. Lebouvier

Îles Kerguelen: Grande Terre: Presqu'île Bouquet de la Grye: Port Couvreux, 1 km north-west of the hut, cliffs on the right side of the stream, 49°16′54.7″S, 69°41′24.4″E, *ca* 50 m a.s.l., on spots of soil on dry and exposed slope covered with *Festuca contracta*, *Agrostis magellanica*, *Acaena magellanica* and scattered *Azorella selago*, 19 November 2006, *leg. R. Ochyra 428/06* (KRAM).

Polytrichum piliferum is a bipolar species, widespread throughout the Holarctic and scattered in the cool-temperate and cold regions in the Southern Hemisphere, with some transitional stations in tropical and southern Africa and on the Hawaiian Islands. Ochyra, Lewis Smith & Bednarek-Ochyra (2008) indicate the occurrence of this species on Îles Kerguelen but no reference to the source of this record is given. The species was collected by the authors at several stations on Grande Terre and on islands in Golfe du Morbihan during the 2006/2007 mission, sometimes growing in great abundance. Here, an exemplary record is cited to substantiate the dot on the map of its global distribution in *The illustrated moss flora of Antarctica*.

23. ***Pterygoneurum subsessile*** (Brid.) Jur.

Contributor: Özlem Tonguç Yayintaş

Turkey: Niğde-Çamardi: Emli Valley, near the village of Çamardı T 844 (37°50′N, 34°58′E), *ca* 670 m a.s.l., on open, dry soil, 2 November 2000, *leg. Özlem Tonguç Yayıntaş* (Çanakkale Onsekiz Mart University Herbarium, MO), *s.n.*

Pterygoneurum subsessile has a wide distribution in North and South America, North Africa, Europe and Asia. It is known from areas close to Turkey, such as Israel and Syria (Heyn & Hernnstadt, 2004), Georgia and Azerbaijan (Ignatov, Afonina & Ignatova, 2006) and the Mediterranean area. According to the recent Turkish checklists (Uyar & Çetin, 2004; Kürschner & Erdağ, 2005) *P. subsessile* has not previously been recognized in the country.

P. subsessile in found in arid or semi-arid climates on dry clayey or sandy soil (Lo Giudice & Galesi, 1997). The genus is easily recognized by the short, generally bulbiform habit, and ovate to spathulate leaves with lamellae on the ventral surface of the costa (Zander, 1993). *P. subsessile* is quite like species of *Tortula* sect. *Pottia,* and is approached in most features by *Tortula cuneifolia* (Dicks.) Turner*, T. grandiretis* Broth., and *T. californica* E.B.Bartram, which apparently derived from *Hyophila*-like ancestors (Zander, 1993).

The specimen was collected in the Aladağ Mountains National Park, which comprises 54,514 hectares and is the largest national park in Turkey. Although the main part of this National Park is in Yahyalı, the Park also extends into the neighboring districts of Camardı (Nigde province) and Aladag (Adana province). The study area is mostly covered in forest and has a classical steppe or continental climate. The average annual precipitation is 389 mm according to data from the Çamardı meteorology station. The annual average temperature is 9.1°C. The study area and its environs are the most important areas in the ecoregion for endemism, forest cover and wildlife. A very distinct vegetation on stony ground in this valley is characterized by common communities of *Marrubium globosum, Artemisia caucasica, Veronica tauricola,* and *Teucrium chamaedrys*. In the Emli Valley *Pterygoneurum subsessile* is associated with *Bryum dichotomum* Hedw. and *Crossidium crassinerve* (De Not.) Jur.

24. ***Southbya tophacea*** (Spruce) Spruce

Contributors: Manuela Sim-Sim, Michael Stech and M. Glória Esquível

Portugal: AZORES: Ilha das Flores (Flores Island), on the way to Morro Alto, on an exposed slope along the trail, 25SFD5267, *ca* 500 m a.s.l., 9 September 2008, *leg. Manuela Sim-Sim* (LISU), *s.n.*

This species was reported as doubtful in the Azores by Söderström, Urmi & Váňa (2002), although it was already known in Macaronesia, from Madeira and the Canary Islands (Frey *et al.*, 2006). This is the first report of *Southbya tophacea* for Flores Island and we confirm its occurrence in the Azores Archipelago. Therefore, this new record constitutes a range extension of this Mediterranean-Atlantic liverwort towards westernmost Europe. The plants were found in association with *Trichostomum brachydontium* Bruch in a more or less dense mat, brown in colour, on an exposed moist slope along a trail, close to new road infrastructure. Although this taxon is not characteristic of acidophilous substrates, it has previously been collected on neutrophilous to acidophilous substrates in the north of the Portuguese mainland.

25. ***Tortula brevissima*** Schiffn.

Contributor: Frank Müller

Sardinia: NUORO: Dorgali SW: valley of the Rio Flumineddu downriver of Gola su Gorrupu, 40°11′11″N, 9°30′17″E, rocky slopes along a path, 25 March 2008, *leg. F. Müller* (DR *039629*).

In the field the species resembles small forms of *Tortula muralis* Hedw. Therefore the species is probably often overlooked and is more widespread than currently known. In Italy the species was only known from Calabria and Sicily (Aleffi, Tacchi & Cortini Pedrotti, 2008). At the same locality the author has collected *Claopodium whippleanum* (Sull.) Renauld & Cardot, a species only recently reported as new for Sardinia and Italy by Frahm, Lüth & van Melick (2008). It should be noted here that the record of *C. whippleanum* of the author was made about seven weeks before the record of Frahm *et al.* (2008) and therefore represents the first record of this species for Italy.

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Two epiphyllous species of *Drepanolejeunea* (Spruce) Schiffn. new to the Indian bryoflora

The genus *Drepanolejeunea* (Spruce) Schiffn. is represented by six taxa in India. Among these, *D. erecta* (Steph.) Mizut., *D. pulla* (Mitt.) Grolle and *D. vesiculosa* (Mitt.) Steph. are reported from the eastern Himalayas only, *D. ternatensis* (Gottsche) Steph. and *D. ternatensis* var. *lancispina* Herzog are known from south India only, while *D. angustifolia* (Mitt.) Grolle is distributed in the eastern Himalayas as well as in south India (Udar & Awasthi, 1982). During a recent investigation of a collection of liverworts from Western Ghats, we identified two taxa, *D. fleischeri* (Steph.) Grolle & Zhu and *D. pentadactyla* (Mont.) Steph., from Karnataka, south India, which are new to the Indian bryoflora. Earlier, *D. fleischeri* was reported from Sri Lanka and China only (Grolle & Zhu, 2000) while *D. pentadactyla* was known from Cambodia, China, Hawaii, Indonesia, Seram, West Irian, Madagascar, Malaysia, New Caledonia, Philippines, Samoa, Tahiti, Thailand and Vietnam (Zhu & So, 2001). The genus is now represented by eight taxa in India. Among them components *D. fleischeri* and *D. pentadactyla* are follicolous and the remainder are corticolous except for *D. erecta* which is sometimes rupicolous (Udar & Awasthi, 1982).

1. *Drepanolejeunea fleischeri* (Steph.) Grolle & Zhu, Nova Hedwigia 70: 379. 2000. (Fig. 1)

Leptolejeunea fleischeri Steph., Spec. Hepat. **5**: 382. 1913.

Rhaphidolejeunea fleischeri (Steph.) Herzog, Mitt. Thur. Bot. Vereins 50: 104. 1943.

Type locality: Sri Lanka.

Plants yellowish green, 2–11 mm long, leaf shoots 0.9–1.5 mm wide. *Stem* 0.06–0.08 mm in diameter, transverse section with seven cortical cells, 15–18 × 7–15 μm, and three medullary cells, 18 × 11–15 μm. *Leaves* loosely imbricate, widely spreading, leaf-lobes ovate, 0.38–0.56 mm long, 0.22–0.30 mm wide, the margin serrulate, apex acute, apical cells 11–18 × 7–15 μm, median cells 15–22 × 15–18 μm, basal cells 26–49 × 15–20 μm; cuticle smooth; ocellus one at the base of the leaf-lobe, 64–71 × 30 μm. *Leaf–lobule* ovate, inflated, 0.22–0.24 mm long, 0.12–0.13 mm wide, free lateral margin of lobule proximal to the notch bordered by 7–9 or more subquadrate to