

New national and regional bryophyte records, 6

(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. *Chrysoblastella chilensis* (Mont.) Reimers (Syn. *Cheilothela chilensis* (Mont.) Broth.)

Contributor: C. C. Townsend

Costa Rica: Prov. San José; Cerro la Muerte, on the ground by a track a little S. of the Pan American Highway at 85 km, alt. ca 3140 m, ca 9° 34' N, 83° 46' W, 10 April 1993, Townsend 93/554. Specimens in USJ and the private herbarium of C. C. Townsend.

This species was not detected in the field, but subsequently extracted in a few small tufts among a gathering of *Campylopus standleyi* E.B. Bartram. It was quite unfamiliar to me, but would not come out satisfactorily in the generic keys of Griffin & Morales (1983) or Sharp, Crum & Eckel (1994). I accordingly sent the specimen to Dr Griffin, who kindly named it as *Cheilothela chilensis* and referred me to the excellent description and figure by Newton (1977). Reimers (1926), in transferring the species to *Chrysoblastella*, also made reductions that established the latter as a monotypic genus — a view supported by Buck (1981). Ochyra (1999) adds two further names to its synonymy (*Dichodontium brasiliense* Broth. and *D. opacifolium* Dix.), and also provides excellent figures. I have since encountered *C. chilensis* in Torres del Paine Parco Nazionale, Chile.

The species is recorded by Delgadillo, Bello & Cárdenas (1995) from Chile, Peru, Bolivia, Brazil, Colombia, and the Dominican Republic. It is also in Argentina (*cf.* Matteri 5047 in Musci Patagonici Exsiccati 15, from Lago Argentino), but it has not been previously recorded from mainland America in or north of the Panamanian isthmus.

The key of Griffin & Morales (1983) may be modified as below to include *Chrysoblastella*:

GROUP E.

9. Lamina cells and the dorsal surface of the nerve strongly bimammillose, the leaf apex strongly mammillose all round; leaf margin not toothed; leaves bistratose and cells obscure except in the basal quarter. *Chrysoblastella*
9. Lamina cells and dorsal surface of nerve together not strongly bimammillose, the leaf apex not strongly mammillose all round; leaf margin entire or toothed; leaves unistratose, or bistratose only along the margins or towards the apex. 9A

(Renumbering the existing dichotomy 9 as 9A)

- 9A. Cells unimammillose or unipapillose, papillae not branched. 10
- 9A. Cells pluripapillose, or if unipapillose then the papillae branched. 12

Allen (1994) contains no general generic key, but *Chrysoblastella* differs from all Ditrichaceae dealt with in that work by the characters given for the genus in the above modified key section.

2. *Ditrichum gracile* (Mitt.) Kuntze

Contributor: I. Novotný

Romania: Southern Carpathians, Muntii Haghimaşului, Cheile Bicazului, defile, 12 July 1972, Pospíšil 50985 (BRNM, KRAM).

The taxonomic evaluation of the *Ditrichum flexicaule* complex by Frisvoll (1985) showed that *D. gracile* (*D. crispatissimum* (Müll. Hal.) Paris) is a distinct species scattered but widely distributed over nearly the whole world. This species occurs largely on limestone substrata. In the Iberian Peninsula and on the Balearic Islands it has more sub-Mediterranean characteristics and demands higher and more persistent humidity (Casas, Brugués & Cros, 1990; Casas *et al.*, 1992). On the other hand, *D. flexicaule* s. str. shows a more marked Mediterranean nature and a higher drought tolerance. In the Czech Republic and Slovakia *D. gracile* and the transitional phenotypes to *D. flexicaule* are rather rare. They are somewhat more abundant in Slovakia. As regards orographic distribution *D. flexicaule* is more frequent at lower elevations, but it reaches the alpine belt. The altitudinal range of *D. gracile* is similar but it is more characteristic of higher elevations (Novotný, 1996). In Austria it occurs frequently in the calcareous and central Alps, from the lower montane to the alpine region, but here it also reaches the snow-bed zone and it is more frequent than *D. flexicaule* (Grims, 1999). *D. gracile* is not recorded in the latest catalogue of the bryophytes of Romania (Mohan, 1998), so the specimen collected in 1972 by V. Pospíšil must be considered the first record of this species from this country and from the Southern Carpathians (Transylvanian Alps).

3. *Dryptodon patens* (Hedw.) Brid.

Contributor: Marko Sabovljević

The Federal Republic of Yugoslavia: Serbia: Kosovo: Mt Šara, Virovi, UTM 34TDM86, ca 2200 m alt., *leg.* M. Sabovljević, 26 June 1997, *det.* H. Blom (Sept. 2000), *conf.* J. Muñoz. Specimens in E and the private herbarium of M. Sabovljević, no. 761.

Dryptodon patens was collected during an investigation of the bryophytes of Mt Šara (South Serbia, province of Kosovo) in the

alpine ecosystem on the Serbian side of the border between Serbia and the Former Yugoslav Republic of Macedonia, and close to the frontier with Albania. The plants were growing on damp siliceous rocks by a high mountain stream above the tree-line. The plants at this locality were growing in dull green patches 2–4 cm long, the stems prostrate below and erect above. All the plants collected were sterile.

The distribution of *D. patens* is documented by Ochyra & Szmajda (1990). It is a newly recorded species for the bryophyte flora of Serbia and the Federal Republic of Yugoslavia (Sabovljević & Stevanović, 1998, 1999). The studies of Ade & Koppe (1955), Pavletic & Zabijakin (1960), Martincić (1980) and Sabovljević (1998) give much information on the bryophytes of Mt Šara (for both Serbia and FRY Macedonia), but they do not cite this species. In the Balkans *D. patens* is known from Slovenia, Croatia (Velebit Mt), Bosnia and Herzegovina, Romania, Greece, Bulgaria, and Macedonia (Pavletic, 1955; Martincić, 1968; Greven, 1995; Düll, 1984, 1985; Düll *et al.*, 1999). We can expect it to occur also in Albania. The range of localities of *D. patens* in the Balkans is very scattered, although its habitat preference suggests that it could be more widely distributed.

4. *Eurhynchium asperisetum* (Müll.Hal.) E.B.Bartram

Contributor: L. Hedenäs

Malaysia: Peninsular Malaysia, Pehang, Cameron Highlands, Gunung Brinchang, along road to peak, 4° 32' N, 101° 24' E, 1850 m a.s.l., brook valley, on boulder in brook, L. Hedenäs, 25 May 2001, *det.* L. Hedenäs. Specimens in E, NY, S (S no. B57855).

Eurhynchium asperisetum is known from several areas in Asia, mainly in the S.E. (Ignatov, Koponen & Norris, 1999). During an excursion to the Cameron Highlands in Peninsular Malaysia in 2001, together with I. Bisang, B. C. Tan and Y. Chang, I collected a *Eurhynchium* specimen that turned out to be *E. asperisetum*. This is the first known find of the species in Malaysia (Mohamed & Tan, 1988; Ignatov *et al.*, 1999).

5. *Fissidens laxitextus* Broth. ex Gangulee

Contributors: M-A. Bruggeman-Nannenga & C. C. Townsend

Pakistan: Rawalpindi District; Wah, on damp bank by mill stream near the Mogul Gardens, 33° 50' N, 72° 44' E, 3 April 1973, *Townsend 73/1617A*. Specimen in the private herbarium of C.C. Townsend.

This binomial made its first appearance in Bruehl (1931) as a *nomen nudum*, and was validly published by Gangulee (1964, p. 144) with a description and figure — the latter being cited in the text as “pl.3”, a reference repeated in *Index Muscorum*. In fact, the figure occupies the upper half of t.19; it was reproduced by Gangulee (1971, p. 529) as fig. 250. Townsend (1993) did not publish the gathering 73/1617 with others made at the same period. It was determined by A. H. Norkett as *Fissidens bryoides* Hedw. var. *bryoides* and was later submitted to Bruggeman-Nannenga, who found it to consist of two elements — *F. bryoides* var. *schmidii* (Müll.Hal.) R.S.Chopra & S.S.Kumar and

F. laxitextus, here given the “A” suffix. It is odd that Norkett overlooked the latter, both species being present in approximately equal quantity (though both sterile) and one species limbate and the other not. The type is from India — Sepoydhurra Forest in Kurseong, Darjeeling District. Gangulee (1971) also records it from Nepal, “a number of specimens at about 2,000 m” having been collected by Norkett, though none is cited. Norkett’s gatherings are housed in BM.

6. *Fissidens planifrons* Besch. (Syn. *F. vulcanicus* Renauld & Cardot)

Contributors: M-A. Bruggeman-Nannenga, C.C.Townsend & †T.Arts

Réunion: Cap Méchant, puits des Français, on volcanic rock boulder, alt. 20 m, 27 April 2000, *Arts 154/01*. Specimens in BR and the private herbarium of M-A. Bruggeman-Nannenga.

Sri Lanka: Central Province; Kandy District, very closely appressed to granite rock on the hill Gannoruwa, near Peradeniya, 7° 17' N, 80° 35' E, 28 January 1973, *Townsend 73/727*. Specimens in PDA and the private herbarium of C. C. Townsend.

Fissidens planifrons was described from the Comorean island of Mayotte by Beschereille (1885, p. 85), together with a var. *corticeus*. *F. vulcanicus*, described by Renauld & Cardot (1897, p. 34) and again (1915, p. 171) in Grandidier, with a figure in the Atlas (1898–1913, pl. 36 f. 1), was recorded from Diego Suarez, Madagascar. Thériot (1927) recorded *F. vulcanicus* from another Comorean island, Anjouan, without locality, but later (1932) supplied a locality, at the same time stating his conclusion that *F. vulcanicus* was merely a small form of *F. planifrons*. This conclusion was supported by Bizot & Dury (1970, p. 682) but not by Bruggeman-Nannenga (1997, pp 165, 169), who considered *F. planifrons* to be distinct from *F. vulcanicus* by its ex- to per-current costa and relatively wider leaves. Since the 1997 paper more specimens have been collected, some of which are hard to place on the basis of these two characters. We too therefore consider the two to be conspecific. *F. planifrons* is a very distinctive species with frondose plants, large axillary nodules, narrow (5–10 times as long as wide in the upper parts), bistratose leaves with narrowly acute tips that end in one or more large, pointed cells or a mucro, costae that may end as many as 15 cells below the apex and are often obscured by chlorophyllose cells in the distal part, and the cells multipapillose. The leaves are typically elimbate, but in a few collections there is a weak, short limbidium just below the apex. This is unique in the Fissidentaceae, where partial limbidia are typically restricted to (parts of) the vaginant laminae, and when limbidia are present on part of the dorsal or apical laminae they extend from the base of the apical upward and from the middle of the dorsal downward and upward.

F. planifrons is thus new to Asia. In mainland Africa it has been reported from Tanzania (Bizot & Dury, 1970; Bizot & Poćs, 1979 — we have not seen these specimens), but its main distribution is on the islands: Madagascar, the Comores and now Réunion. Disjuncts between Sri Lanka and eastern Africa are by no means unknown, but usually in less apparently rare species.

7. *Hygrohypnum cochlearifolium* (Venturi) Broth.

Contributors: R. Ochyra and I. Novotný

Romania: Southern Carpathians, Masivul Bucegi, Sinaia, Virfucu Dor (2030 m) – M. Furnica (2103 m), 5 July 1972, Pospíšil 50766 (BRNM).

Hygrohypnum cochlearifolium is a rare arctic-alpine moss having a strongly discontinuous range in the Northern Hemisphere. It appears to be most widespread in Europe where it is bicentric in distribution. It occurs rarely in the arctic archipelago of Svalbard (Frisvoll & Elvebakk, 1996) and in Fennoscandia (Söderström, 1996), and has a scattered distribution in central parts of the continent. It appears to be most widespread in the Alps of Austria, Switzerland and Italy, where it occurs in the subalpine and alpine belts at elevations of 1700–2830 m (Limpricht, 1904; Grims, 1999). Additionally, it is very rare in the Central Pyrenees of Spain and in the High Tatras in the Western Carpathians of Poland and Slovakia. *H. cochlearifolium* was not recorded in the latest catalogue of bryophytes of Romania (Mohan, 1998), so the specimen collected in 1972 by the late Czech bryologist Valentin Pospíšil (1912–1999) must be considered as the first record of this species from this country and from the Southern Carpathians (Transylvanian Alps).

8. *Pohlia flexuosa* Harv.

Contributors: G. Brusa & C. C. Townsend

Italy: Lombardy, prov. Varese: slope of Mount Lema, near the Swiss border, on recently excavated banks in a beech wood, usually on moist siliceous rocks or on soil in the rock crevices, ca 1200 m, UTM 32TMR89, leg. G. Brusa, 14 August 2001, det. G. Brusa, conf. C. C. Townsend. Specimen in the private herbarium of G. Brusa (no. 3514).

There is no previous record of this species for Italy (Cortini Pedrotti, 2001). The collection, however, is of interest not for that reason alone. No narrow, twisted primary propagula are present, but the secondary propagula are identical in form with those of the moss described as *Pohlia myyldermansii* Wilcz. & Dem. var. *pseudomyyldermansii* Arts, Nordhorn-Richter & A.J.E.Smith. This agrees well with the fact that hitherto in mainland Europe the distribution of plants with this type of propagula has been limited to Austria and Switzerland (whereas secondary bulbils of the “var. *myyldermansii*” type occur in Belgium and Germany). Their homogeneous nature in the Italian plants also tends to support the belief of Townsend (1995) that, since mixed types of propagula occur where *P. flexuosa* is native and reproduces sexually, introductions into Europe have been by propagula and thus clonal, and that plants with both forms of propagula on separate plants may spread in Europe in the next few decades.

9. *Rhabdoweisia crenulata* (Mitt.) H. Jameson

Contributor: I. Novotný

Romania: Southern Carpathians, muntii Fagaras, Simbata de Sus, valley of the river Simbata, ca 1000 m, 45° 34' N, 24° 49' E, 14 July 1972, Pospíšil 51085 (BRNM, KRAM).

Rhabdoweisia crenulata is a disjunctive Holarctic moss. It is very rare in Europe, except for the British Isles where it has the main centre of its European distribution. It grows on shaded ledges and in crevices of siliceous rocks in humid or damp situations, often under overhangs. It occurs typically on N.-facing crags, among boulders on scree, and in ravines, especially near waterfalls, at an elevation from sea level to 800 m (Hill, Preston & Smith, 1992). On the continent it was collected for the first time in the present Czech Republic by Velenovský (1897) in the Bohemian Forest [Glacial cirque above Black lake (Cerné jezero)], but this specimen was misidentified as *R. denticulata* (Brid.) Bruch, Schimp. & W. Guembel (= *R. crispata* (Dicks.) Lindb.). Herben (1987) showed that this specimen actually represents *R. crenulata*. So it has been known from the Czech Republic since 1987, from the collection in 1897 by J. Velenovský. In the Bavarian part of this mountain range *R. crenulata* was reported from Great Maple Mt. (Gr. Arber) by Koppe & Koppe (1931). In Fennoscandia it is known from Western Norway (Hegewald, 1972). The southernmost localities of *R. crenulata* in Europe occur in the Pyrenees (Ederra Induráin, 1983) and it is now reported also from the Southern Carpathians of Romania. *R. crenulata* was not recorded in the latest catalogue of bryophytes of Romania (Mohan, 1998), and the specimen collected in 1972 by V. Pospíšil (1912–1999) must therefore be considered as the first record of this species from this country.

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T. L. BLOCKEEL¹, 9 Ashfurlong Close, Dore, Sheffield S17 3NN, UK. E-mail: Tblockeel@aol.com

†T. ARTS, Kerklei 56, B-2960 St Job in't Goor, Belgium.

M. A. BRUGGEMAN-NANNENGA, University of Utrecht, Department of Plant Ecology and Evolutionary Biology, Herbarium Division, Heidelberglaan 2, NL 3584 CS Utrecht, The Netherlands.

G. BRUSA, Via Corridoni 97, 21100 Varese, Italy. E-mail: gbva72@hotmail.com

L. HEDENÄS, Swedish Museum of Natural History, Department of Cryptogamic Botany, Box 50007, S-104 05 Stockholm, Sweden. E-mail: lars.hedenas@nrm.se

I. NOVOTNÝ, Department of Botany, Moravian Museum, Hviezdoslavova 29/A, CZ-627 00 Brno – Slatina, Czech Republic. E-mail: skubesova@mzm.cz

R. OCHYRA, Laboratory of Bryology, Institute of Botany, Polish Academy of Sciences, ul. Lubicz 46, PL-31-512 Kraków, Poland. E-mail: ochyra@ib-pan.krakow.pl

M. S. SABOVLEVIĆ, Department of Plant Ecology and Plant Geography, Institute of Botany and Garden, Faculty of Biology, University of Belgrade, Takovska 43, YU-11000 Belgrade, Yugoslavia. E-mail: marko@psc.ac.yu

C. C. TOWNSEND, 392 Staines Road, Twickenham, Middlesex TW2 5JA, U.K. E-mail: cliff.townsend@lineone.net

¹Column editor, to whom contributions should be sent.