Bryophytes of Uganda, 4. New and additional records, 2.

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Abstract 20 hepatics and 16 mosses are reported new to Uganda, 1 moss being also new to Africa. A further 6 taxa are recorded for the second time from Uganda.

INTRODUCTION

This is the fourth paper giving preliminary results of the British Bryological Society (BBS) Expedition to Uganda, supported by the UK Darwin Initiative Fund. The first paper of the series (Wigginton, et al. 1999) provides the background to the expeditions, and full details of the numbered collecting sites. Reference should be made to that paper for latitude/ longitude and UTM reference points and the general habitat. Most of the records were made during the BBS Expeditions to Uganda in 1996 and 1997, although some were collected by earlier workers and lodged unidentified in BM, and others were collected by G. & S. Miehe and their students from University of Marburg, Germany, as part of their studies on tropical montane ecology. Only a small proportion of the BBS collections have so far been examined,

and so additional collections of at least some of the taxa listed in this paper are to be expected. A number of identifications have been made in genera yet to be revised, and it has not been possible to check all of these against types. Where comment is made about any taxon, the author's initials are added in square brackets.

Nomenclature follows O'Shea (1999a) for mosses, and Wigginton & Grolle (1996) for liverworts, except where otherwise stated. For each record we give the district, site name, site number in parentheses, habitat, altitude, collector and specimen number. Specimens will be deposited at the Royal Botanic Garden, Edinburgh, and at the Herbarium, Department of Botany, Makerere University, Kampala.

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Abbreviations: NP: National Park; FR: Forest Reserve; MUBFS: Makerere University Biological Field Station (at Kanyawara, Kibale NP, Fort Portal).

* = new to Uganda ** = new to Africa

LIVERWORTS

ANEURACEAE

*Riccardia holstii E.W.Jones KABALE. Bwindi NP, near Mubwindi Swamp (81b), on rotten wood in swampy forest, 2015 m, 26 January 1996, Hodgetts 4063a, det. M.J. Wigginton. This species is morphologically similar to R. longispica, differing in being monoicous. There are records only from Cameroon, Tanzania, Zaire and Zimbabwe.

*Riccardia longispica (Steph.) Pearson RUKUNGIRI. Bwindi NP (70), on soil under overhanging rocks, with Calypogeia fissa, Lepidozia succida and Pallavicinia lyellii, 1560 m, 31 January 1996, Stevenson 3263d, det. M.J. Wigginton. An apparently local or overlooked species, recorded elsewhere only from Cameroon, Tanzania and Zaire.

ANTHOCEROTACEAE

Anthoceros myriandroecius Steph. KABAROLE. Nyabitaba path, Rwenzori NP (39e), on damp shaded rock in stream near the Mahoma river crossing, 2080 m, 2 February 1997, Wigginton 8049a, det. M.J. Wigginton. The first record from Uganda was made by Lye & Katende (Lye & Pócs 1997), and the present record is published with equal caution because of the poor knowledge of the genus in Africa and the need for a revision. Recorded in recent years from neighbouring Kenya, Rwanda and Tanzania. [MJW]

*Anthoceros sambesianus Steph. KABALE. Bwindi NP, 1 km W. of Ruhiija camp, (79), on damp volcanic shale by forest track, 2400 m, 25 January 1996, *Matcham 1036a*, det. H.W. Matcham. Otherwise known only from Rwanda, Lesotho and former Rhodesia.

AYTONIACEAE

*Plagiochasma beccarianum Steph. TORORO. Tororo Hill, 0°40'N 34°10'E, on limestone rocks, 4000 ft., 28 July 1955, A.C. Crundwell 511, det. T. Pócs (E). A few records from Eritrea south to S Africa.

GEOCALYCACEAE

*Heteroscyphus dubius (Gottsche) Schiffn. MASINDI. Bunyoro, Budongo Forest, July 1955, E.W. Jones 539 (BM), det. E.W. Jones, conf. A.J. Harrington (in September 2000). Whilst several records of H. dubius were published new to Uganda in Porley et al. (1999), all of those cited collections have been re-determined as Lophocolea martiana. This collection from Budongo Forest, not previously published, thus appears to be the first for Uganda, and currently the only one. A predominantly West African species. [MJW].

HAPLOMITRIACEAE

*Haplomitrium gibbsiae (Steph.) R.M.Schust. KAPCHORWA. Mt. Elgon: below rim of caldera (121), in flush in afromontane grass-heath, with Cratoneuron filicinum, 3960-3990 m, 10 July 1998, Matcham 12377a, det. N.G. Hodgetts. Recorded also in Lesotho, and widely disjunct in Chile, Argentina, the Indian Himalayas and New Zealand.

JUNGERMANNIACEAE

*Clasmatocolea vermicularis (Lehm.) Grolle RUKUNGIRI. Bwindi NP, near Kitahurira Bridge (65), on soil on rock exposure in roadside bank, 1460 m, 1 February 1996, Wigginton 5072c, det. M.J. Wigginton. Though newly recorded from Uganda, this species is doubtless widespread but much overlooked. Eastern and southern Africa.

LEJEUNEACEAE

All collections have been determined by M.J. Wigginton unless otherwise indicated.

*Aphanolejeunea fadenii (Pócs) Pócs KABALE. Bwindi NP, near Haruhendo (83a), foliicolous on forest shrub, 1990 m, 29 January 1996, Wigginton 5028c. Also known from Kenya, Rwanda and Tanzania.

*Aphanolejeunea lisowskii Pócs RUKUNGIRI. Bwindi NP, waterfall trail, Buhoma (70), foliicolous on Hymenophyllum sp., with Cololejeunea runssorensis, Drepanolejeunea aff. cultrella, and Prionolejeunea grata, 1500 m, Matcham 1097e, 1 February 1996, det. M.J. Wigginton, conf. T. Pócs. Bwindi NP (70), foliicolous on forest shrub, with Drepanolejeunea cultrella, Radula stenocalyx, 1530 m, 2 February 1996, Wigginton 5097j; foliicolous on forest shrubs, frequent or abundant on some, 1530-1600 m, 7 February 1997, Wigginton 8311b, 8352b. Otherwise known from only four collections, the others from D.R. Congo (2) and Eq. Guinea (2).

Aphanolejeunea moramangae Tixier ex Pócs BUSHENYI. Kalinzu Forest Reserve (49), foliicolous on forest shrub in humid area by stream, 1440 m, 4 February 1997, Wigginton 8064j. The second collection for Uganda, the other from the Ssese Islands in south-central Uganda (Pócs & Lye, 1999). Formerly considered to be an exclusively Lemurian species, it has been recorded recently from Equatorial Guinea (Infante & Heras, 1998).

*Aphanolejeunea truncatifolia Horik. (A. subdiaphana (Ast.) Pócs) RUKUNGIRI. Bwindi NP, 1 km N. of Kitahurira Bridge (64b), foliicolous on forest shrub near stream, 1470 m, 31 January 1996, Wigginton 5063a. The two other records for Africa are from Bioko (Infante, Heras & Buck, 1997), and from Malawi (Wigginton, in prep.).

Archilejeunea autoica Vanden Berghen KABAROLE. Kibale NP (35), on deeply shaded rocks in R. Dura, W. of road bridge, 1245 m, 25 February 1996, Wigginton 5272a. African taxa of Archilejeunea are in need of revision, and it is

possible that *A. autoica* might be a habitatinduced form of another species of *Archilejeunea* (E.W.Jones, *in litt.*). Second record from Uganda. Local in West and East tropical Africa. [MJW]

*Cheilolejeunea pocsii E.W.Jones KABALE. Bwindi NP, Kaseresere valley W. of Ruhiija (83b), bark on fallen branch on forest floor, 2000 m, 29 January 1996, Wigginton 5026g. A local, or probably widely overlooked species, otherwise recorded in Kenya, Rwanda, Tanzania, South Africa and Madagascar.

*Cololejeunea duvignaudii E.W.Jones RUKUNGIRI. Bwindi NP (70), foliicolous on forest shrub, 1530 m, 2 February 1996, Wigginton 5097c. An almost exclusively E. African species, but with one record from Gabon.

*Cololejeunea malanjae Steph. RUKUNGIRI. Bwindi NP (70), foliicolous on forest shrub, 1530 m, 2 February 1996, Wigginton 5097d. This collection most closely matches the description and figures of *C. grossidens* in Vanden Berghen (1972). Widespread in East Africa.

Cololejeunea minutissima subsp. minutissima (Sm.) Schiffn. KABALE. Bwindi NP (81b), foliicolous on forest shrub, 2020 m, 26 January 1996, Wigginton 5126a. TORORO. Tororo Hill, 0°40'N 34°10'E, epiphyte, 1219 m, July 1969, A.C. Crundwell 522, det. T. Pócs. (E). These pre-date the collection published in Pócs & Lye (1999). Eastern and southern Africa.

Cololejeunea minutissima subsp. myriocarpa (Nees & Mont.) R.M.Schust. TORORO. Tororo Hill, 0°40'N 34°10'E, epiphyte, 1219 m, July 1969, A.C. Crundwell 523, det. T. Pócs. (E). This pre-dates the collections published in Pócs & Lye (1999). Local in East, West and southern Africa.

Cololejeunea nigerica (E.W.Jones) R.M.Schust. MASINDI. Budongo Forest, in crown of Cryptomeria, July 1955, E.W. Jones 563, 564 p.p., det. E.W. Jones. (E). This predates the collections published in Pócs & Lye (1999). A predominantly West African species, extending eastwards to Uganda.

Cololejeunea obliqua (Nees & Mont.) Schiffn. BUSHENYI. Kalinzu FR (49), foliicolous on forest shrub, 1440 m, 4 February 1997, Wigginton 8064h. KABAROLE. Itwara F.R.(23), foliicolous on a species of Asclepiaceae, with C. bolombensis and C. obtusifolia, 1250 m, 29 January 1997, Wigginton 3183b. In Uganda, previously recorded from Kibale NR and from the Ssese Islands. Widespread in West and East tropical Africa.

*Cololejeunea parva Vanden Berghen KABAROLE. Kibale NP, Sebitoli (31b), foliicolous on Porothamnium stipitatum on forest tree, 1400 m, 27 February 1996, Wigginton 5294b, and foliicolous on Hymenophyllum sp. on forest tree, Wigginton 5294d. These collections are named as C. parva on the basis of the small lobule, about 0.3 the length of the lobe (or less) and down to one eighth of its size, and usually more or less triangular, though variable in shape (fide Vanden Berghen, 1977). Apart from the relative size of the lobule, the Kibale plants appear very similar to C. mocambiquensis (Arnell, 1955); for example, in the size of stem cortical cells, and the size of lobe cells and distribution of papillae (the lobule usually lacking papillae in both species). The similarity of the two taxa has already been remarked on by Pócs (Bizot & Pócs, 1979). Differences in the sexual state and the perianth have been reported: C. parva from Rwanda (De Sloover 18703), monoicous, with an unbeaked perianth (Vanden Berghen, 1977); C. mocambiquensis from Madagascar (Onraedt 5254), dioicous, with a beaked perianth (Tixier, 1979). But fertile plants of neither species have been reported from elsewhere, and the relationships of the two taxa require further investigation. [MJW]

Cololejeunea runssorensis (Steph.) Pócs RUKUNGIRI. Bwindi NP, waterfall trail, Buhoma (70), epiphytic on Hymenophyllum sp. (with Aphanolejeunea lisowskii, Drepanolejeunea aff. cultrella, and Prionolejeunea grata), 1500 m, Matcham 1097f. The holotype of Aphanolejeunea runssorensis collected by Scott Elliott at Wimi, Rwenzori in 1894 is the only other record from Uganda. An exclusively East African species.

Diplasiolejeunea cornuta **Steph.** RUKUNGIRI. Bwindi NP (73), foliicolous on forest shrub, 1550 m, 7 February 1997, *Wigginton 8348a*. In Uganda, previously recorded in Kibale Forest and from Mt. Elgon. Predominantly east tropical Africa and the East African islands, and apparently less frequent as an foliicolous species than on twigs.

*Drepanolejeunea cultrella (Mitt.) Steph. RUKUNGIRI. Bwindi NP (70), foliicolous on forest shrub, 1530 m, 2 February 1996, Wigginton 5097b. Widespread in sub-Saharan Africa.

*Drepanolejeunea symoensii Vanden Berghen & Grolle KABALE. Bwindi NP, near Haruhendo (83a), foliicolous on forest shrub, 1990 m, 29 January 1996. RUKUNGIRI. Bwindi NP (70), foliicolous on forest shrub, 1530 m, 2 February 1996, Wigginton 5097a. With an apparently very restricted range in E. tropical Africa, with records also from Burundi, Rwanda and eastern D.R. Congo.

*Lejeunea hepaticola (Steph.) Steph. KAPCHORWA. Mt. Elgon NP, Hunter's Cave to Piswa trail (115), on Erica arborescens associated with Orthotrichum arborescens, Frullania ecklonii and Plagiochila sp., 3500 m, 11 July 1998, Porley 9199d. Otherwise known from Kenya, Tanzania and D.R. Congo.

*Lejeunea lomana E.W.Jones RUKUNGIRI. Bwindi NP, near Ruhiija (82), epiphyte on smooth bark of sapling in forest, in hepatic mat dominated by Microlejeunea kamerunensis, 2300 m, 27 January 1996, Stevenson 3070c. Diagnostic features of this species include i) the apical half of the rather large lobule is flattened against the lobe, ii) the free margin of the lobule is visible in situ, iii) the small underleaves. Even though these features are shown in this collection, it is placed in L. lomana with some hesitation because dismally few stems were found, and none is fertile. This is the first published record of this species from E. Africa. However, E.W.Jones determined a Kenyan collection (DUEK7871, Hb. R.J. Fisk) as "probably this species", though he commented that "it is very close to weak forms of L. aethiopica". Furthermore, Jones (1985)

suggested that the two species might possibly be forms of one variable species, though the lack of specimens presented an obstacle to their study. It is otherwise known only from Sierra Leone. [MJW]

Leptolejeunea astroidea (Mitt.) Steph. MASINDI. Budongo Forest 'Siba Line plot', 1°N 31°E, UTM 36N/0301, January 1938, W.J. Eggeling s.n., det. E.W. Jones. (E). This predates previously published collections. Widespread in tropical Africa.

Lopholejeunea subfusca (Nees) Steph. MASINDI. near Sonso, Budongo FR (8), on trunk of Newtonia buchananii on open swamp at forest edge, 950 m, 26 January 1997, Wigginton 3157b. Second record from Uganda, the other from Mpanga, Mpigi District. Widespread in tropical Africa.

*Mastigolejeunea florea (Mitt.) Paris MASINDI. Pabidi Forest, Budongo FR (10a), on trunk of *Uvariopsis congoensis* in forest, 990 m, 25 January 1997, *Wigginton 3129a*. Mainly a species of West Africa, with a few records from East Africa.

*Taxilejeunea pulchriflora Pearson RUKUNGIRI. Bwindi NP, Buhoma (72), appressed to stem of *Cyathea*, shaded by overgrowing robust pleurocarpous mosses, 1460 m, 7 February 1997, *Wigginton 8300d*. Widespread, but apparently local, in E. and W. tropical Africa.

MARCHANTIACEAE

Dumortiera hirsuta (Sw.) Nees NEBBI. By R. Ayudo, behind Paidha (Paida) dispensary (West Nile Province), 2°25'N 30°59'E, 27 August 1956, *R.J. Chancellor L9*, det. E.W. Jones. (E). This pre-dates previously published collections. Widespread in tropical and southern Africa.

METZGERIACEAE

Metzgeria agnewii Kuwahara KABAROLE. Rwenzori mountains, near Lake Bujuku, 0.37°N 29.75°E, epiphyte, 3960 m, January 1956, *T.E.* Fletcher & J. Smith s.n., det. Y. Kuwahara. (E). This collection pre-dates previously published records. A species of tropical East Africa.

MOSSES

BRYACEAE

*Bryum apiculatum Hampe RUKUNGIRI. Bwindi NP, Kitahurira Bridge (64a), on damp, decayed stonework of bridge, with *Philonotis* sp., 1480 m, 30 January 1996, *Wigginton 5045d*, det. M.J. Wigginton. Widespread in tropical and southern Africa, Indian Ocean islands, south and south-east Asia, Australia and Oceania.

*Orthodontium gracile Schwägr. ex Bruch, Schimp. & W.Gümbel KAPCHORWA. Mt. Elgon NP, S of Piswa Hut (112), on trunk of small dead tree by path in riverine *Podocarpus-Olea* forest, 2900 m, 15 July 1998, *Porley 9259a*, det. R.D. Porley. In Africa this species has a mainly eastern distribution, being recorded from Ethiopia, Kenya, Rwanda, Tanzania and D.R. Congo, with an isolated occurrence in Cameroon.

ENCALYPTACEAE

*Encalypta ciliata Hedw. MBALE. Mt. Elgon NP, summit of Mt. Wagagai, 34°32'E 1°7'N, on ground in dry grassland on SW-facing slope, 4321 m, 29 January 1997, *G. & S. Miehe U07-10692 02*, det. B.J. O'Shea. Known previously from Kenya, Tanzania and southern Africa.

ENTODONTACEAE

*Entodon vulcanicus Demaret & V.Leroy KISORO. Mgahinga NP, lower slopes (89a), on fallen trunk of small tree, 2470 m, Wigginton 8380a, det. E.L. Kungu. A species of tropical East Africa.

FABRONIACEAE

*Fabronia bizotii Pócs KAPCHORWA. Mt. Elgon NP, south of Piswa Hut (112), on underside of trunk of fallen tree in moist *Olea africana* forest, 2780 m, 6 July 1998, *Porley 9051a*, det.

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R.D. Porley; *Matcham 12041a*, conf. R.E. Magill. First record for East Africa. In the field the conspicuously ciliate margin is reminiscent of *Rhizofabronia*, but differs in the presence of a distinct nerve in the leaf and a peristome. Otherwise known only from Cameroon. [RDP]

*Fabronia leikipiae Müll.Hal. KAMPALA. Makerere University campus (98), on bark, ca. 1235 m, Porley 6a (22 January 1996), 7b, 8a, 9a (23 January 1996), O'Shea 2601a, 2756a (22 January 1997), all det. R.D. Porley. MPIGI. Kawanda Agricultural Research Station, near Kampala (97), on well illuminated isolated tree near SE corner of buildings, 1160 m, 9 February 1996, Wigginton 5271a, det. M.J. Wigginton. This species is distinct in its strongly concave leaves, but the taxonomy of the F. pilifera group is uncertain, and it might eventually be afforded a lower taxonomic status. [MJW]

GRIMMIACEAE

*Grimmia fuscolutea Hook. KAPCHORWA. Mt. Elgon NP, Mubiyi (122), in cleft of large crags of caldera rim, 4210 m, 9 July 1998, Porley 9126a; on boulders in nutrient rich shrubland, 3880 m, 23 September 1997, K. Wesche 1769; both specimens det. J. Muñoz, who considers this to be synonymous with Grimmia abyssinica (Müll.Hal.) Mitt. (Muñoz & Pando, 2000). Otherwise known from Cameroon, Kenya, Lesotho and South Africa. [RDP]

*Grimmia incurva Schwägr. KABAROLE. Rwenzori NP, Mt. Stanley, Elena Glacier, on exposed rocks within 15 m of glacier snout, 4570 m, June 1968, Hamilton 25b (MHU), det. J. Muñoz; on slopes of Mt. Margherita, in rock crevices near Elena Hut, 4920 m, 16 February 1997, Wigginton 5167a, det. R.D. Porley, conf. J. Muñoz. This is the first use of this name in Africa, known previously from a single record from Tanzania (Muñoz & Pando, 2000). [RDP]

*Grimmia unicolor Hook. KAPCHORWA. Mt. Elgon NP, on soil in rocky summit vegetation, 4270 m, 13 March 1997, K. Wesche 1108, det. R.D. Porley; on rock outcrops, 3590 m, 29 May 1997, K. Wesche 1391, det. R. D. Porley; on rock

outcrops, 4060 m, 21 June 1997, K. Wesche 1472, det. R.D. Porley; on rocks, 3300 m, 26 June 1997, K. Wesche 1840; on rocks, 3840 m, 7 October 1997, K. Wesche 1885; trail from Hunter's Cave to caldera (118), on rock outcrops in moorland, 3890 m, 10 July 1998, Porley 9069a; on damp soil amongst rocks on floor of caldera (121), 3980 m, 8 July 1998, *Porley 9090d*; all det. J. Muñoz unless otherwise stated. This is the first use of this name in Africa. Muñoz (pers. comm.) considers that all material named G. obtusolinealis Müll.Hal. belongs to this species; under the latter name O'Shea (1999a) lists Ethiopia and Tanzania, although Muñoz (Muñoz & Pando, 2000) has confirmed it from Ethiopia only. Unusually in Grimmia, two collections are noted as growing directly on soil. [RDP]

LESKEACEAE

**Claopodium pellucinerve (Mitt.) Best KAPCHORWA. Mt. Elgon NP (122), in recess of east-facing rock face, inner face of caldera rim, 4210 m, July 1998, Porley 9105f, det R.D. Porley, conf. W.R. Buck. Genus new to Africa. C. pellucinerve is characterised by its minutely pluripapillose stems and branches, the other species of Claopodium having smooth stems and branches (Noguchi, 1964). The species is known from Mexico, Alaska, Aleutians, British Columbia, Washington and New Mexico, and from India, south-eastern Siberia and Japan. [RDP]

Haplocladium angustifolium (Hampe & Müll.Hal.) Broth. KABAROLE. Grounds of the Mountains of the Moon Hotel, Fort Portal (19), on tree trunk by main drive, 1524 m, Wigginton 3164a, det M.J. Wigginton, conf. B.J. O'Shea. In Uganda, recorded previously from the Rwenzori Mts. and from Kisoro district (Kis, 1985). A species of eastern and southern Africa.

ORTHOTRICHACEAE

*Orthotrichum arborescens Thér. & Naveau KAPCHORWA. Mt. Elgon NP. Inside caldera (121), on giant Senecio, 3990 m, 8 July 1998, Porley 9094a, 9097a; Piswa to Hunter's Cave trail (126), on tree heath, 3385 m, 11 July 1998,

Porley 9148a; (114), tree heath, 3500 m, 11 July 1998, Porley 9162a; (115), on tree heath with Plagiochila sp., 3500 m, 13 July 1998, Porley 9199a; all specimens det. R.D. Porley, conf. M.J. Wigginton; Near Hunter's Cave (117), trunk of Erica arborea, 8 July 1998, Matcham 12082a. Known from East Africa only - from Ethiopia, Kenya, Rwanda and D.R. Congo.

*Orthotrichum subexsertum Schimp. ex Müll.Hal. KAPCHORWA. Mt. Elgon NP, Siti River (131), on twigs of tree in open forest, 2800 m, 16 July 1998, *Porley 9286a*, det. R.D. Porley, conf. M.J. Wigginton. Recorded from Kenya, Rwanda, Lesotho, Natal and the Cape.

PILOTRICHACEAE

*Hookeriopsis gabonensis Broth. & P.de la Varde KABALE. Bwindi NP, Mubwindi swamp path (81a), on fallen rotting log in forest, 2310 m, 26 January 1996, Hodgetts 4042f, det. N.G. Hodgetts, conf. M.J. Wigginton. Hitherto known only from Gabon.

POTTIACEAE

*Gymnostomiella erosulum (Müll.Hal.) Arts TORORO. Bukedi region, Tororo Hill, 34°11'E 0°42'N, on limestone rocks, 28 July 1969, Crundwell 510, det. H.W. Matcham. An uncommon plant, previously known only from Burundi, and from Cameroon, Sierra Leone and Cape Verde islands (Arts, 1998). [HWM]

Hyophila involuta (Hook. f.) A.Jaeger MASINDI. Murchison Falls NP, Rabongo Forest (3), on rock in forest clearing, 915 m, 19 February 1996, Wigginton 5228a, det. M.J. Wigginton. Second record for Uganda of what must be a widespread species in the country, as well as in Africa in general.

PTERIGYNANDRACEAE

*Trachyphyllum inflexum (Harv.) A.Gepp MASINDI. Budongo Forest Reserve: Pabidi Forest (10c), trunk of Combretum molle in open scrub-forest, 1010 m, 25 January 1997, Wigginton 3138b, det. B.J. O'Shea. The

distribution of *Trachyphyllum* was recently reviewed for Africa (O'Shea, 1999b) and SW Uganda fits into the predicted distribution area. Nearest localities are the Usambara mountains of Tanzania, and the Pongo River area of SW Sudan. [BJO]

SEMATOPHYLLACEAE

Radulina borbonica (Bél.) W.R.Buck MASINDI. Nyakafunjo Nature Reserve, Budongo FR (6), on rotting log in forest, with Trichostelium sp., 1050 m, 24 January 1997, Wigginton 3115a. KABAROLE. Itwara Forest Reserve (23), on rotting log in forest, 1250 m, 28 January 1997, Wigginton 3192a. RUKUNGIRI. Bwindi NP, near Kitahurira bridge (64b), on log over stream in forested valley, with Mittenothamnium sp. and Hookeriopsis sp., 1460 m, 31 January 1996, Wigginton 5068a; Bwindi NP, near Rukubira (69), on rotting log in forest, 1610 m, 3 February 1996, Wigginton 5143a. All specimens det. M.J. Wigginton, conf. B.J. O'Shea. Only one previous record from Uganda, from the Ssese Islands. Widespread species in West and East tropical Africa, and doubtless overlooked in Uganda.

THUIDIACEAE

*Thuidium tamariscinum (Hedw.) Bruch, Schimp. & W.Gümbel MBALE: Mt. Elgon NP, 1°09'N 34°29'E, in turf, and moss cushions in brook, 3520 m, 20 June 1997, K. Wesche 1466-161, det. P. Martin. Temperate and boreal Europe and Asia, extending to Japan; disjunct in the Azores and Africa.

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