

An Updated Checklist of Bryophytes of Karnataka

Uwe Schwarz

Abstract: SCHWARZ, U. (2013): An Updated Checklist of Bryophytes of Karnataka.

During the analysis of collections made by the author and company in Madikeri (Coorg) district the need of an updated checklist became eminent. Literature studies were carried out alongside with the identification of specimen. Liverworts were added to the existing checklist of mosses of Karnataka. Location information of previous publications has been critically revised and reflected in the current list. An extended history of the bryological exploration of the state of Karnataka is given.

1. Introduction

Karnataka is one of the southern states of India. It borders the Arabian Sea to the west, Maharashtra to the north, Andhra Pradesh and Telangana to the east, Tamil Nadu to the south east and Kerala to the south west. It covers an area of more than 190,000 square kilometres and got a population of approximately 61 million.

From east to west there are 3 geographical regions – the coastal region, the Western Ghats and the Bayaluseeme region comprising the plains of the Deccan plateau. The majority of the state is part of the Bayaluseeme region that stretches for 150 to 200 km from the eastern foot of the Western Ghats to the state borders in the east. Due to its arid nature this region was hardly visited by bryologists.

The climate is influenced by the monsoon, providing seasonal rainfalls with a gradient from about 3500 mm in the west, with maximums up to 5000 mm, to 5-600 mm in the east. The temperatures vary accordingly between an average of 27° along the coast and much higher temperatures but under drier conditions in the interior.

2. Exploration of the Bryoflora of the State of Karnataka

Even though the coastal plains and the mountains of the Western Ghats hold a rich flora the state of Karnataka has never been in focus for intensive bryological research. Records are usually based on occasional visits of botanists and bryologist in the known, botanical interesting areas. Figure 1 shows the localities of bryological research.

The first record of bryophytes in the state of Karnataka dates back to October 1892 when G.A. GAMMIE collected *Bryum argenteum* var. *australe* REHMANN ex DIXON at Castle Rock (Uttara Kannada district). This record was referred to in several publications, e.g. SEDGWICK, L.J. 1913. GAMMIE was at that time in charge of the Lloyd Botanic Garden in Darjeeling before he took up curatorship of the herbarium of the Calcutta Royal Botanic Gardens and took later on government posts in Bombay and Pune.

It was A.E. LOWRIE who contributed next to the bryoflora of the state. In 1895 and 1896 he collected a few mosses in Coorg (Madikeri). Specimen of *Fimbraria angusta* STEPHANI, *Lejeunea*

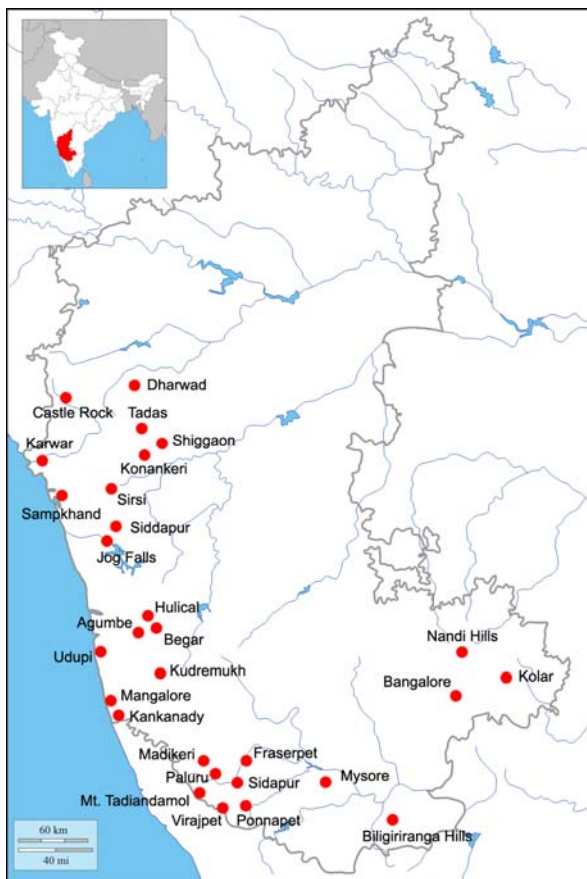


Figure 1 Bryological collection localities

lowriana STEPHANI and *Leucobryum imbricatum* BROTH. are deposited in the herbaria of Geneva (G) and Paris (PC). These samples were very likely taken during the preparation of a progress report of the forest administration in Coorg in 1895 – 96.

The first major collection from the area, consisting of more than 300 numbers, originates from T.L. WALKER who visited Coorg in December 1897 and January 1898. BROTHERUS 1899 published the result, describing more than 20 new taxa new to science of which around 10 are still valid. WALKER was assistant superintendent of the Geological Survey of India from 1897 – 1901. He used the time during geological field work in with T.H. HOLLAND to carry out his botanical studies in Coorg.

I. PFLEIDERER, a South West German / Swiss missionary worked as a teacher at the Mission High School in Mangalore. His bryophyte collections dated from 1905 – 1911 origin mostly from the vicinity of Mangalore but he collected in Coorg, Kudremukh and Udupi as well. His specimen can for instance be found in the herbaria of Geneva (G) and Paris (PC).

R.M. MAXWELL, a member of the Indian Civil Service, collected in 1908 and 1909 in the north western part of Karnataka. During that time the “Kanara Jungles” were part of the Bombay presidency. References to his specimen can be found in DIXON 1909 and SEDGWICK 1910. Even though MAXWELL lived in India from 1907 – 1944 he only used his early years in India for botanical studies.

L.J. SEDGWICK was as MAXWELL a member of the Indian Civil Service working as an Indian census superintendent. Apart from his collection of vascular plant he also collected bryophytes, mostly in today’s state of Maharashtra. His moss collections between 1907 and 1919 were initially published by himself in SEDGWICK 1910, SEDGWICK 1911 and SEDGWICK 1913. A substantial number of records from the Kanara District that are based on SEDGWICKS collections from October 1919 were identified and published in DIXON 1921.

G. FOREAU contributed to the bryoflora of Karnataka with a few collections from the Mangalore area dating back to 1925 and 1926 and being published in DIXON & POTIER DE LA VARDE 1927. As a missionary at the Jesuit Sacred Heart College at Shembaganur in the Palni Hills his botanical studies focused mostly at that area in today’s state of Tamil Nadu. He published his discoveries of the bryoflora of Madras in FOREAU 1930 and 1931 as well as in his “Musci Madurenses Indiae Meridionalis Exsiccati”. His late works (FOREAU 1961 and 1964) cover the moss flora of the Palni Hills and South India.

A.R. RAO contributed with 2 specimens from Mangalore that were collected in 1938. Based at the University of Lucknow he worked closely together with BIRBAL SAHNI, one of Indias most

renowned paleobotanists. He is not identical with Prof. A.R. RAO working at the same institute who was only born in 1924.

S.K. PANDE intensified the research on diversified aspects of Bryophytes at the University of Lucknow in 1923 laying the corner stone of the high reputation of bryological research at this institution. His own works cover a time span from the early 1930s to the late 1950s mostly focusing on Liverworts. During his research he visited the Shimoga district at least in 1940 and 1950. Species as *Cephalozia pandei* UDAR & D. KUMAR, *Cololejeunea pandei* UDAR & G. SRIVAST., *Heteroscyphus pandei* S.C. SRIVAST. & A. SRIVAST., *Metzgeria pandei* S.C. SRIVAST. & UDAR, *Notoscyphus pandei* UDAR & AD. KUMAR, *Notothylas pandei* UDAR & V. CHANDRA and *Radula pandei* UDAR & KUMAR, DHIRENDRA are dedicated to him.

H.C. GANGULEE, the internationally renowned author of the “Mosses of Eastern India and Adjacent Regions”, was bryologically active between the 1950s till the early 1980s. He visited Bangalore in 1958 from where the only record from the area that can be assigned to him – *Barbula indica* (HOOK.) SPRENG. – was collected. Before he retired in 1979 he was head of the Department of Botany, University of Calcutta.

Between 1960 and 1964 it was R.S. RAGHAVAN, who contributed to the knowledge of the moss flora of the region. He mentioned 35 species from Shimoga District in RAGHAVAN & WADHWA 1968. Both were working for the Botanical Survey of India in Pune, where also their moss collection is kept. Apart from another article, RAGHAVAN & WADHWA 1970, no further collections of bryophytes have been made by the authors.

Apart from collection in the United Kingdom C.C. TOWNSEND contributed to bryology with a lot of collections that were made abroad. Those originate for instance from northern and tropical Africa, Canary Islands and western Asia. In 1973 he visited the Nandi Hills, approximately 50 km north to Bangalore during a botanical field trip with colleagues from Britain and India. He published his results in TOWNSEND 1988. The 32 records give a very good indication of the moss flora of south eastern Karnataka.

Between the mid of the 1970s and end of the 1980s there were regular visits by bryologists of the department of botany from the University of Lucknow. It was G. ASTHANA, U.S. AWASTHI, V. CHANDRA, A. KUMAR, D. KUMAR, V. NATH, D SHARMA, S.C. SRIVASTAVA and R. UDAR who visited the bryologically interesting areas like Agumbe, Coorg and Kudremukh. The records were published in various papers as well in PhD thesis and it can be assumed that there are more unpublished records of species in particular deposited in the herbarium at Lucknow.

Despite the close proximity of the state of Kerala, bryologist from this state hardly visited the area. It was only K.P. RAJESH who contributed *Bryum tuberosum* MOHAMED & DAMANHURI to the list.

A valuable contribution might have been provided by V.C. BATH who worked on mosses of the Western Ghats and the coastal belt of Karnataka (BATH 2009). According to the university staff the thesis hasn't been published yet and a copy could therefore not be provided.

The author itself started his bryological investigation in 2012 during his assignment to the IT department of Mercedes-Benz in India. IT colleagues like H. WINKELMANN and BHARGAV RAM accompanied him to locations in Coorg and Biligiriranga Hills. A major collection was done during field trips with J.-P. FRAHM and F. SCHUMM to Coorg in 2012 – the later a lichenologist who studied the lichen flora of that area. The preliminary results were published in SCHWARZ and FRAHM 2013. One of the most interesting findings was the discovery of a *Phycolepidozia* species – a leafless Cephaloziellaceae from Mt. Tadiandamol. A publication is in preparation.

4. Methodology

The lists are divided by Anthocerotae, Hepaticae and Musci. Whenever possible primary literature was evaluated. All records found in secondary literature were mentioned as well, even if the respective data from primary sources was already cited.

The evaluation of the taxonomical status is following TROPICOS in most of the cases. A critical judgment of possible miss identification was not executed and will be subject to future studies.

Family, genus and taxa numbers for the states of Kerala and Tamil Nadu were calculated after taxonomical adjustments.

The following locations mentioned in previous publications to hold bryophyte records for the area don't belong to the state of Karnataka and were excluded from the list:

- Panchgani – State of Maharashtra, Satara district
- Lonavla – State of Maharashtra, Pune district
- Mahabaleshwar – State of Maharashtra, Satara district

5. Anthocerotae

1. *Anthoceros bhاردwajii* UDAR & A. K. ASTHANA (Anthocerotaceae)

Jog Falls - ASTHANA & SRIVASTAVA 1991 [Coll./herb. no. UDAR ET AL. 6343/82 (LWU), 09/1982]; Karnataka - SINGH, DEY, SINGH 2010

2. *Anthoceros indicus* STEPHANI (Anthocerotaceae)

Mysore - BAPNA & KACHROO 2000a

Anthoceros notothyloides STEPHANI = *Anthoceros subtilis* STEPHANI

3. *Anthoceros subtilis* STEPHANI (Anthocerotaceae)

Mangalore - [Coll./herb. no. PFLEIDERER, I. 60883 (G), 09/1906] [Coll./herb. no. PFLEIDERER, I. 60882 (G), 08/1907] - ASTHANA & SRIVASTAVA 1991 (as *Anthoceros notothyloides*) [Coll./herb. no. PFLEIDERER, I. 12822 (G - Type), 09/1906] [Coll./herb. no. PFLEIDERER, I. 12823 (G - Type), 08/1907] - BAPNA & KACHROO 2000a (as *Anthoceros notothyloides*)

Aspiromitus mangaloreus STEPHANI = *Folioceros mangaloreus* (STEPHANI) D.C. BHARDWAJ

4. *Folioceros dixitianus* (MAHAB.) D.C. BHARDWAJ (Anthocerotaceae)

Castle Rock - BAPNA & KACHROO 2000a

5. *Folioceros mangaloreus* (STEPHANI) D.C. BHARDWAJ (Anthocerotaceae)

Agumbe - ASTHANA & SRIVASTAVA 1991 [Coll./herb. no. PANDÉ, S.K. 5020/51, 5022/51 (LWU), 08/02/1951] - BAPNA & KACHROO 2000a; Mangalore - [Coll./herb. no. PFLEIDERER, I. 69645 (G), 08/1907] - ASTHANA & SRIVASTAVA 1991 [Coll./herb. no. PFLEIDERER, I. 14577 (G)] - BAPNA & KACHROO 2000a

6. *Notothylias dissecta* STEPHANI (Notothykladaceae)

Agumbe - ASTHANA & SRIVASTAVA 1991 [Coll./herb. no. PANDÉ, S.K. 319 R/WG (LSU), 09/1950] - BAPNA & KACHROO 2000a

7. *Notothylias pandei* UDAR & V. CHANDRA (Notothykladaceae)

Jog Falls - ASTHANA & SRIVASTAVA 1991 [Coll./herb. no. R. UDAR; V. CHANDRA NS528 (LWU), 10/1962] - BAPNA & KACHROO 2000a

8. *Notothylas pflidereri* UDAR & D.K. SINGH (Notothyladaceae)

Mangalore - ASTHANA & SRIVASTAVA 1991 [Coll./herb. no. PFLEIDERER, I. 12823 (G), 08/1907] - UDAR & SINGH 1979a [Coll./herb. no. PFLEIDERER, I. 12823 (G - p.p.), 08/1907]

9. *Phaeoceros laevis* (L.) PROSK. (Anthocerotaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - SINGH, DEY, SINGH 2010 - SINGH & SINGH 2007

6. Hepaticae**1. *Acanthocoleus yoshinaganus* (S. HATT.) KRUIJT (Lejeuneaceae)**

Madikeri - BAPNA & KACHROO 2000b

2. *Archilejeunea apiculifolia* STEPHANI (Lejeuneaceae)

Kudremukh - [Coll./herb. no. PFLEIDERER, I. 67057 (G), 04/1911] - BAPNA & KACHROO 2000b - VERMA & SRIVASTAVA 2011

Archilejeunea indica STEPHANI = *Schiffneriolejeunea pulopenangensis* (GOTTSCHE) GRADST.

Archilejeunea mariana (GOTTSCHE) STEPHANI = *Cheilojeunea mariana* (GOTTSCHE) B. THIERS & GRADST.

3. *Asterella khasiana* (GRIFF.) GROLLE (Aytoniaceae)

Karnataka - SINGH, DEY, SINGH 2010

4. *Asterella leptophylla* (MONT.) GROLLE (Aytoniaceae)

Mysore - VERMA & SRIVASTAVA 2011

Asterella mercarana (STEPHANI) KACHROO & BAPNA = *Asterella wallichiana* (LEHM.) GROLLE

Asterella mysorensis (KASHYAP) KACHROO & BAPNA = *Asterella wallichiana* (LEHM.) GROLLE

5. *Asterella wallichiana* (LEHM.) GROLLE (Aytoniaceae)

Agumbe - BAPNA & KACHROO 2000b (as *Asterella mercarana*); Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - SINGH, DEY, SINGH 2010 - SINGH & SINGH 2007; Kodagu (Coorg) - [Coll./herb. no. PFLEIDERER, I. 67382 (G), 10/1906]; Madikeri - BAPNA & KACHROO 2000b (as *Asterella mercarana*); Mysore - BAPNA & KACHROO 2000b (as *Asterella mysorensis*)

6. *Bazzania ovistipula* (STEPHANI) ABEYW. (Lepidoziaceae)

Karnataka - SINGH, DEY, SINGH 2010; Kudremukh - BAPNA & KACHROO 2000a - MIZUTANI 1967a [Coll./herb. no. PFLEIDERER, I. 11187 (G), 04/1911] - SHARMA & SRIVASTAVA 1993

7. *Bazzania pusilla* (STEPHANI) S. HATT. (Lepidoziaceae)

Kudremukh - [Coll./herb. no. PFLEIDERER, I. 67258 (G), 04/1911]

8. *Caudalejeunea pluriplicata* UDAR & U.S. AWASTHI & SHAHEEN (Lejeuneaceae)

Agumbe - UDAR, AWASTHI, SHAHEEN 1982 [Coll./herb. no. D. KUMAR, A. KUMAR, U.S. AWASTHI 4732/81 (LWU), 1981] - VERMA & SRIVASTAVA 2011 [Coll./herb. no. D. KUMAR, A. KUMAR, U.S. AWASTHI 4732/81 (LWU), 1981]

9. *Caudalejeunea reniloba* (GOTTSCHE) STEPHANI (Lejeuneaceae)

Agumbe - BAPNA & KACHROO 2000b

10. *Cephaloziella kiaeri* (AUSTIN) S.W. ARNELL (Cephaloziellaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

Chandonanthus birmensis STEPHANI = *Mastigophora diclados* (BRID. EX F. WEBER) NEES**11. *Cheilolejeunea birmensis* (STEPHANI) MIZUT. (Lejeuneaceae)**

Agumbe - ASTHANA, SRIVASTAVA, ASTHANA 1995 [Coll./herb. no. D. KUMAR, A. KUMAR, U.S. AWASTHI 4716/81 (LWU), 03/05/1981] - BAPNA & KACHROO 2000b

12. *Cheilolejeunea imbricata* (NEES) S. HATT. (Lejeuneaceae)

Agumbe - ASTHANA, SRIVASTAVA, ASTHANA 1995 [Coll./herb. no. S.C. SRIVASTAVA; U.S. AWASTHI; D. SHARMA 8815/85 (LWU), 14/10/1985] - BAPNA & KACHROO 2000b

13. *Cheilolejeunea laeviuscula* (MITT.) STEPHANI (Lejeuneaceae)

Agumbe - ALAM 2012; Madikeri - ALAM 2012 - ASTHANA, SRIVASTAVA, ASTHANA 1995 [Coll./herb. no. D. KUMAR, A. KUMAR, U.S. AWASTHI 4616/81, 4658/81 (LWU), 01/05/1981]

14. *Cheilolejeunea mariana* (GOTTSCHE) B. THIERS & GRADST. (Lejeuneaceae)Agumbe - BAPNA & KACHROO 2000b (as *Archilejeunea mariana*)**15. *Cheilolejeunea rigida* STEPHANI (Lejeuneaceae)**

Madikeri - [Coll./herb. no. PFLEIDERER, I. 112873 (G), 10/1906] [Coll./herb. no. PFLEIDERER, I. 282945 (G), 10/1906]

16. *Cheilolejeunea trapezia* (NEES) MIZUT. (Lejeuneaceae)

Karnataka - SINGH, DEY, SINGH 2010

17. *Cololejeunea appressa* (A. EVANS) BENEDIX (Lejeuneaceae)

Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6251/82, 6284/82, 6523/82, 6525/82, 6530/82 (LWU), 28/09/1982] [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4731/81, 4747/81 (LWU), 04/05/1981] [Coll./herb. no. PANDÉ, S.K. 3879/50, 3880/50 (LWU), 15/10/1950] - VERMA 2009; Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6152/82, 6153/82, 6154/82, 6508/82, 6513/82, 6515/82, 6516/82, 6517/82, 6518/82, 6519/82 (LWU), 27/09/1982] [Coll./herb. no. PANDÉ, S.K. 3759/40, 3782/40, 4414/40, 4414/40, 4417/40, 4419/40 (LWU), 05/01/1940] - VERMA 2009; Karnataka - ASTHANA 2001

Cololejeunea dentifolia UDAR & G. SRIVAST. = *Cololejeunea gottschei* (STEPHANI) MIZUT.**18. *Cololejeunea epiphylla* G. ASTHANA & A. SHUKLA (Lejeuneaceae)**

Megarvalli - ASTHANA & SHUKLA 2010 [Coll./herb. no. G. ASTHANA ET AL. 19762/06 (LWU)]

19. *Cololejeunea floccosa* (LEHM. & LINDENB.) STEPHANI (Lejeuneaceae)

Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. PANDÉ, S.K. 3879/50, 3880/50 (LWU), 15/10/1950] [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4731/81, 4755/81 (LWU), 04/05/1981] [Coll./herb. no. 6233/82, 6241/82, 6242/82, 6245/82, 6248/82, 6249/82, 6250/82, 6285/82, 6301/82, 6304/82, 6521/82, 6523/82, 6524/82, 6533/82, 6535/82 (LWU), 28/09/1982]; Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6508/82, 6516/82 (LWU), 27/09/1982]

20. *Cololejeunea foliicola* S.C. SRIVAST. & G. SRIVAST. (Lejeuneaceae)

Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. PANDÉ, S.K. 3781/40, 3786/40, 3788/40, 3793/40,

3794/40, 4797/40, 4414/40, 4434/40 (LWU), 05/01/1940] [Coll./herb. no. R. UDAR ET AL. 6150/82, 6151/82, 6152/82, 6153/82, 6154/82, 6155/82, 6513/82, 6514/82, 6517/82, 6518/82, 6519/82 (LWU), 27/09/1982] - BAPNA & KACHROO 2000b - VERMA & SRIVASTAVA 2011 [Coll./herb. no. R. UDAR ET AL. 6515/82 (LWU), 27/09/1982] [Coll./herb. no. R. UDAR ET AL. 6515/82 (LWU), 27/09/1982]; Karnataka - ASTHANA 2001; Madikeri - BAPNA & KACHROO 2000b

21. *Cololejeunea furcilibulata* (BERRIE & E.W. JONES) R.M. SCHUST. (Lejeuneaceae)

Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4755/81 (LWU), 04/05/1981] - BAPNA & KACHROO 2000b; Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6508/82 (LWU), 27/09/1982] - BAPNA & KACHROO 2000b; Karnataka - ASTHANA 2001 - PÓCS, MANJU, RAJESH, MADHUSOODANAN 2007

22. *Cololejeunea goebelii* (GOTTSCHKE EX K.I. GOEBEL) SCHIFFNER (Lejeuneaceae)

Karnataka - ASTHANA 2001

23. *Cololejeunea gottschei* (STEPHANI) MIZUT. (Lejeuneaceae)

Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4593/81 (LWU), 04/05/1981] - UDAR & SRIVASTAVA 1982 (as *Cololejeunea dentifolia*); Karnataka - ASTHANA 2001 (as *Cololejeunea dentifolia*) - SINGH, DEY, UPADHYAY 2010

24. *Cololejeunea hasskarliana* (LEHM. & LINDENB.) STEPHANI (Lejeuneaceae)

Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6250/82 (LWU), 28/09/1982]; Karnataka - ASTHANA 2001 - SINGH, DEY, SINGH 2010; Mt. Tadiandamol - SCHWARZ & FRAHM 2013

25. *Cololejeunea hyalina* G. ASTHANA & S.C. SRIVAST. (Lejeuneaceae)

Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6516/82 (LWU), 27/09/1982] - VERMA & SRIVASTAVA 2011 [Coll./herb. no. R. UDAR ET AL. 6516/82 (LWU), 27/09/1982] [Coll./herb. no. R. UDAR ET AL. 6516/82 (LWU), 27/09/1982]

26. *Cololejeunea karnatakensis* G. ASTHANA & S.C. SRIVAST. (Lejeuneaceae)

Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6241/82, 6242/82, 6250/82, 6303/82, 6524/82, 6527/82, 6530/82, 6533/82 (LWU), 28/09/1982]; Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6508/82 (LWU), 27/09/1982] - VERMA & SRIVASTAVA 2011 [Coll./herb. no. R. UDAR ET AL. 6516/82 (LWU), 27/09/1982] [Coll./herb. no. R. UDAR ET AL. 6516/82 (LWU), 27/09/1982]

27. *Cololejeunea kashyapii* UDAR & G. SRIVAST. (Lejeuneaceae)

Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6164/82 (LWU), 27/09/1982] [Coll./herb. no. PANDÉ, S.K. 3758/40, 3780/40, 3787/40 (LWU), 05/01/1940] - BAPNA & KACHROO 2000b - VERMA & SRIVASTAVA 2011 [Coll./herb. no. PANDÉ, S.K. 3775/40 (LWU), 05/01/1940] [Coll./herb. no. PANDÉ, S.K. 3775/40 (LWU), 05/01/1940]; Karnataka - ASTHANA 2001

28. *Cololejeunea lanciloba* STEPHANI (Lejeuneaceae)

Jog Falls - BAPNA & KACHROO 2000b

29. *Cololejeunea latilobula* (HERZOG) TIXIER (Lejeuneaceae)

Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6277/82 (LWU), 28/09/1982] -

VERMA 2009; Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6153/82, 6153/82, 6164/82, 6515/82 (LWU), 27/09/1982] - VERMA 2009; Karnataka - SINGH, DEY, SINGH 2010; Madikeri - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4621/81, 4634/81, 4658/81 (LWU), 01/05/1981] - VERMA 2009

30. *Cololejeunea longifolia* (MITT.) BENEDIX (Lejeuneaceae)

Karnataka - BAPNA & KACHROO 2000b

31. *Cololejeunea marginata* (LEHM. & LINDENB.) SCHIFFNER (Lejeuneaceae)

Mysore - BAPNA & KACHROO 2000b

32. *Cololejeunea minutissima* (SM.) SCHIFFNER (Lejeuneaceae)

Karnataka - ASTHANA 2001; Madikeri - [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4610/81, 4615/81, 4658/81 (LWU), 01/05/1981] - VERMA 2009

33. *Cololejeunea mizutaniana* UDAR & G. SRIVAST. (Lejeuneaceae)

Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. PANDÉ, S.K. 3877/50, 3880/50 (LWU), 15/10/1950] [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4787/81 (LWU), 04/05/1981] [Coll./herb. no. R. UDAR ET AL. 6233/82, 6241/82, 6245/82, 6246/82, 6247/82, 6248/82, 6249/82, 6250/82, 6251/82, 6252/82, 6285/82, 6299/82, 6301/82, 6302/82, 6204/82, 6509/82, 6523/82, 6529/82, 6534/82, 6535/82 (LWU), 28/09/1982] - BAPNA & KACHROO 2000b; Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. PANDÉ, S.K. 3761/40, 3778/40, 3782/40 (LWU), 05/01/1940] - BAPNA & KACHROO 2000b - VERMA & SRIVASTAVA 2011 [Coll./herb. no. PANDÉ, S.K. 3794/40 (LWU), 05/01/1940] [Coll./herb. no. PANDÉ, S.K. 3794/40 (LWU), 05/01/1940]

Cololejeunea pandei UDAR & G. SRIVAST. = *Cololejeunea trichomanis* (GOTTSCHE) STEPHANI

34. *Cololejeunea peraffinis* (SCHIFFNER) SCHIFFNER (Lejeuneaceae)

Agumbe - BAPNA & KACHROO 2000b; Jog Falls - BAPNA & KACHROO 2000b; Mysore - BAPNA & KACHROO 2000b

35. *Cololejeunea planissima* (MITT.) ABEYW. (Lejeuneaceae)

Abbi Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4591/81 (LWU), 30/04/1981]; Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. PANDÉ, S.K. 5316/50, 15/10/1960] [Coll./herb. no. R. UDAR ET AL. 6253/82, 6284/82, 6257/82 (LWU), 28/09/1982] [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4718/82 (LWU), 03/05/1981] [Coll./herb. no. R. UDAR ET AL. 6277/82 (LWU), 28/09/1982]; Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6508/82, 6520/82 (LWU), 27/09/1982]; Karnataka - SINGH, DEY, SINGH 2010; Madikeri - [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4624/81, 4626/81, 4634/81 (LWU), 01/05/1981]

36. *Cololejeunea sigmoidea* JOVET-AST & TIXIER (Lejeuneaceae)

Jog Falls - BAPNA & KACHROO 2000b; Karnataka - ASTHANA 2001

37. *Cololejeunea trichomanis* (GOTTSCHE) STEPHANI (Lejeuneaceae)

Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4755/81, 4792/81 (LWU), 04/05/1981] [Coll./herb. no. PANDÉ, S.K. 3877/50, 3880/50, 5316/50 (LWU), 15/10/1950] [Coll./herb. no. R. UDAR ET AL. 6241/82, 6242/82, 6246/82, 6247/82, 6253/82, 6302/82, 6521/82, 6523/82, 6524/82, 6525/82, 6526/82, 6529/82, 6530/82, 6531/82, 6532/82, 6535/82 (LWU), 28/09/1982] - UDAR & SRIVASTAVA 1982

(as *Cololejeunea pandei*); Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6508/82, 6516/82 (LWU), 27/09/1982]; Karnataka - SINGH, DEY, SINGH 2010

38. *Cololejeunea udarii* G. ASTHANA & S.C. SRIVAST. (Lejeuneaceae)

Agumbe - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4755/81 (LWU), 04/05/1981] [Coll./herb. no. PANDÉ, S.K. 3872/50, 3877/50, 3879/50, 3880/50, 5316/50 (LWU), 15/10/1950] [Coll./herb. no. R. UDAR ET AL. 6242/82, 6248/82, 6251/82, 6253/82, 6254/82, 6284/82, 6303/82, 6522/82, 6524/82, 6526/82, 6527/82, 6533/82 (LWU), 28/09/1982] [Coll./herb. no. D. KUMAR; A. KUMAR; U.S. AWASTHI 4786/81, 4789/81, 4792/91, 4793/81 (LWU), 04/05/1981] - VERMA 2009; Jog Falls - ASTHANA & SRIVASTAVA 2003 [Coll./herb. no. R. UDAR ET AL. 6150/82, 6152/82, 6153/82, 6154/82, 6513/82, 6515/82, 6517/82, 6518/82, 6519/82, 6520/82 (LWU), 27/09/1982] [Coll./herb. no. PANDÉ, S.K. 3755/40, 3759/40, 3761/40, 3762/40, 3763/40, 3776/40, 3785/40, 3788/40, 3789/40, 3761/40, 3762/40, 3763/40, 3776/40, 3785/40, 3788/40, 3789/40, 3791/40, 3794/40, 3795/40, 4414/40, 4417/40, 4419/40, 4434/40, 4444/40 (LWU), 05/01/1940] - VERMA 2009; Karnataka - SINGH, DEY, SINGH 2010

39. *Drepanolejeunea yunnanensis* (P.C. CHEN) GROLLE & R.L. ZHU (Lejeuneaceae)

Karnataka - SINGH, DEY, SINGH 2010

40. *Dumortiera hirsuta* (SW.) NEES (Dumortieraceae)

Mt. Tadiandamol - SCHWARZ & FRAHM 2013

41. *Fimbraria angusta* STEPHANI (Aytoniaceae)

Kodagu (Coorg) - [Coll./herb. no. LOWRIE, A.E. 67355 (G), 09/1895]

Fimbraria mescarana STEPHANI = *Asterella wallichiana* (LEHM.) GROLLE

42. *Fossombronia indica* STEPHANI (Fossombroniaceae)

Mangalore - [Coll./herb. no. PFLEIDERER, I. 264641 (G), 08/1906] [Coll./herb. no. PFLEIDERER, I. 121839 (G), 08/1906] - VERMA & SRIVASTAVA 2011

43. *Frullania arecae* (SPRENG.) GOTTSCHKE (Jubulaceae)

Agumbe - ALAM 2012; Kudremukh - [Coll./herb. no. PFLEIDERER, I. 66752 (G), 1905] - NATH & ASTHANA 1998 (as *Frullania wallichiana*) [Coll./herb. no. PFLEIDERER, I. 15898 (G - Typus), 1905]

44. *Frullania breviramea* STEPHANI (Jubulaceae)

Kudremukh - [Coll./herb. no. PFLEIDERER, I. 60729 (G), 1905]

45. *Frullania campanulata* SANDE LAC. (Jubulaceae)

Agumbe - ALAM 2012

46. *Frullania ericoides* (NEES EX MART.) MONT. (Jubulaceae)

Kudremukh - ALAM 2012

Frullania indica STEPHANI = *Frullania arecae* (SPRENG.) GOTTSCHKE

47. *Frullania neurota* TAYLOR (Jubulaceae)

Agumbe - ALAM 2012; Kodagu (Coorg) - ALAM 2012 - BAPNA & KACHROO 2000b; Madikeri - ALAM 2012

- 48. *Frullania obscura*** (SW.) DUMORT. (Jubulaceae)
Mt. Tadiandamol - SCHWARZ & FRAHM 2013
- 49. *Frullania tamarisci*** (L.) DUMORT. (Jubulaceae)
Agumbe - NATH & ASTHANA 1998 [Coll./herb. no. CHANDRA, V. NATH 204114, 204112, 204125, 17/08/1984]
- 50. *Frullania tamarisci*** subsp. *obscura* (VERD.) S. HATT. (Jubulaceae)
South Canara - BAPNA & KACHROO 2000b
Frullania wallichiana MITT. = *Frullania arecae* (SPRENG.) GOTTSCHKE
- 51. *Frullanoides liebmanniana*** (LINDENB. & GOTTSCHKE) SLAGEREN (Lejeuneaceae)
Mysore - BAPNA & KACHROO 2000b
- 52. *Frullanoides tristis*** (STEPHANI) SLAGEREN (Lejeuneaceae)
Nandi Hills - AWASTHI & SRIVASTAVA 1988
- 53. *Gongylanthus indicus*** S.C. SRIVAST. & P.K. VERMA (Arnelliaceae)
Kabbinakad - SCHWARZ & FRAHM 2013
Harpalejeunea indica STEPHANI = *Lejeunea neelgherriana* GOTTSCHKE
- 54. *Herbertus capensis*** (STEPHANI) SIM (Herbertaceae)
Kudremukh - BAPNA & KACHROO 2000a
- 55. *Herbertus dicranus*** (TAYLOR) TREVIS. (Herbertaceae)
Mt. Tadiandamol - SCHWARZ & FRAHM 2013
- 56. *Heteroscyphus argutus*** (NEES) SCHIFFNER (Geocalycaceae)
Karnataka - BAPNA & KACHROO 2000b - SINGH, DEY, SINGH 2010; Kolar - SRIVASTAVA & SRIVASTAVA 1989 [Coll./herb. no. R. UDAR ET AL. 7409/82 (LWU), 02/10/1982]; Kudremukh - SRIVASTAVA & SRIVASTAVA 1989 [Coll./herb. no. R. UDAR ET AL. 8771/85 (LWU), 13/10/1985]; Madikeri - SRIVASTAVA & SRIVASTAVA 1989 [Coll./herb. no. S.C. SRIVASTAVA ET AL. 8832/85 (LWU), 11/10/1985]
- 57. *Heteroscyphus coalitus*** (HOOK.) SCHIFFNER (Geocalycaceae)
Kolar - SRIVASTAVA & SRIVASTAVA 2002 [Coll./herb. no. R. UDAR ET AL. 6409/82 (LWU), 02/10/1982]; Kudremukh - SRIVASTAVA & SRIVASTAVA 2002 [Coll./herb. no. S.C. SRIVASTAVA ET AL. 8771/85 (LWU), 13/10/1985]; Madikeri - BAPNA & KACHROO 2000b - SRIVASTAVA & SRIVASTAVA 2002 [Coll./herb. no. S.C. SRIVASTAVA ET AL. 8832/85 (LWU), 11/10/1983]
- 58. *Jubula javanica*** STEPHANI (Jubulaceae)
Mt. Tadiandamol - SCHWARZ & FRAHM 2013
- 59. *Jungermannia caespiticia*** LINDENB. (Jungermanniaceae)
North Canara - BAPNA & KACHROO 2000a
- 60. *Jungermannia stephanii*** (SCHIFFNER) AMAKAWA (Jungermanniaceae)
South Canara - BAPNA & KACHROO 2000a
Jungermannia tetragona LINDENB. = *Solenostoma tetragonum* (LINDENB.) R.M. SCHUST. EX VANA & D.G. LONG

- 61. *Lejeunea aloba*** SANDE LAC. (Lejeuneaceae)
Jog Falls - BAPNA & KACHROO 2000b (as *Rectolejeunea aloba*)
- 62. *Lejeunea eckloniana*** LINDENB. (Lejeuneaceae)
Agumbe - ALAM 2012 (as *Taxilejeunea eckloniana*); Madikeri - ALAM 2012 (as *Taxilejeunea eckloniana*)
- 63. *Lejeunea flava*** (SW.) NEES (Lejeuneaceae)
Agumbe - ALAM 2012; Jog Falls - ALAM 2012; Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - SINGH, DEY, SINGH 2010 - SINGH, DEY, UPADHYAY 2010; Kudremukh - ALAM 2012; Mysore - BAPNA & KACHROO 2000b
- 64. *Lejeunea kashyapii*** M. DEY, D.K. SINGH & D. SINGH (Lejeuneaceae)
Agumbe - ALAM 2012; Madikeri - ALAM 2012
- 65. *Lejeunea lowriana*** STEPHANI (Lejeuneaceae)
Kodagu (Coorg) - [Coll./herb. no. LOWRIE, A.E. 61215 (G), 01/1896] - BAPNA & KACHROO 2000b - MIZUTANI 1964 - VERMA & SRIVASTAVA 2011 [Coll./herb. no. LOWRIE, A.E. 008152/1896 (G), 01/1896] [Coll./herb. no. LOWRIE, A.E. 008152/1896 (G), 01/1896]
- 66. *Lejeunea neelgherriana*** GOTTSCHKE (Lejeuneaceae)
Kudremukh - [Coll./herb. no. PFLEIDERER, I. 61220 (G), 04/1911]
- 67. *Lejeunea stevensiana*** (STEPHANI) MIZUT. (Lejeuneaceae)
Kudremukh - BAPNA & KACHROO 2000b
- 68. *Lejeunea wightii*** LINDENB. (Lejeuneaceae)
Agumbe - ALAM 2012; Kudremukh - MIZUTANI 1964; Madikeri - ALAM 2012
- 69. *Leptolejeunea elliptica*** (LEHM. & LINDENB.) SCHIFFNER (Lejeuneaceae)
Karnataka - SINGH, DEY, SINGH 2010
- 70. *Leptolejeunea maculata*** (MITT.) SCHIFFNER (Lejeuneaceae)
Karnataka - SINGH, DEY, UPADHYAY 2010
- 71. *Leptolejeunea schiffneri*** STEPHANI (Lejeuneaceae)
Agumbe - BAPNA & KACHROO 2000b; Jog Falls - BAPNA & KACHROO 2000b
- 72. *Leptolejeunea subacuta*** STEPHANI EX A. EVANS (Lejeuneaceae)
Agumbe - BAPNA & KACHROO 2000b; Jog Falls - BAPNA & KACHROO 2000b
- 73. *Lophocolea kurzii*** SANDE LAC. (Lophocoleaceae)
Kabbinakad - SCHWARZ & FRAHM 2013
- 74. *Lophocolea muricata*** (LEHM.) NEES (Lophocoleaceae)
Mt. Tadiandamol - SCHWARZ & FRAHM 2013
- 75. *Lopholejeunea gradsteinii*** UDAR, U.S. AWASTHI & SHAHEEN (Lejeuneaceae)
Agumbe - BAPNA & KACHROO 2000b; Madikeri - BAPNA & KACHROO 2000b
- 76. *Lopholejeunea nigricans*** (LINDENB.) STEPHANI (Lejeuneaceae)
Karnataka - SINGH, DEY, SINGH 2010

- 77. *Lopholejeunea sikkimensis*** STEPHANI (Lejeuneaceae)
Agumbe - ALAM 2012; Karnataka - SINGH & GOSH 2007
- 78. *Lopholejeunea subfusca*** (NEES) SCHIFFNER (Lejeuneaceae)
Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - SINGH, DEY, UPADHYAY 2010; Madikeri - ALAM 2012
- 79. *Mastigophora diclados*** (BRID. EX F. WEBER) NEES (Anastrophyllaceae)
Mt. Tadiandamol - SCHWARZ & FRAHM 2013 (as *Chandonanthus birmensis*)
Metzgeria coorgense S.C. SRIVAST. & SM. SRIVASTAVA = *Metzgeria crassipilis* (LINDB.) A. EVANS
- 80. *Metzgeria crassipilis*** (LINDB.) A. EVANS (Metzgeriaceae)
Madikeri - SRIVASTAVA & SRIVASTAVA 2004 (as *Metzgeria coorgense*) [Coll./herb. no. D. KUMAR, A. KUMAR, U.S. AWASTHI 4555/81 (LWU), 30/04/1981] - VERMA & SRIVASTAVA 2011 (as *Metzgeria coorgense*)
Metzgeria decipiens (C. MASSAL.) SCHIFFNER = *Metzgeria furcata* (L.) CORDA
- 81. *Metzgeria furcata*** (L.) CORDA (Metzgeriaceae)
Bangalore - BAPNA & KACHROO 2000b; Kudremukh - BAPNA & KACHROO 2000b (as *Metzgeria decipiens*) - SRIVASTAVA & UDAR 1975 (as *Metzgeria decipiens*)
- 82. *Microlejeunea inflatiloba*** STEPHANI (Lejeuneaceae)
Udupi - [Coll./herb. no. PFLEIDERER, I. 112612 (G), 02/1913]
- 83. *Microlejeunea ulicina*** (TAYLOR) STEPHANI (Lejeuneaceae)
Agumbe - ALAM 2012; Jog Falls - ALAM 2012
- 84. *Notoscyphus lutescens*** (LEHM. & LINDENB.) MITT. (Jungermanniaceae)
Kabbinakad - SCHWARZ & FRAHM 2013; Kudremukh - BAPNA & KACHROO 2000a - UDAR & KUMAR 1981
- 85. *Notoscyphus paroicus*** SCHIFFNER (Geocalycaceae)
Kudremukh - [Coll./herb. no. PFLEIDERER, I. 112168 (G), 04/1911] - GROLLE 1960 (as *Saccogyna subalternifolia*) [Coll./herb. no. PFLEIDERER, I. 112168 (G), 04/1911]; North Canara - BAPNA & KACHROO 2000a
Pallavicinia crispata (MONT.) STEPH. = *Pallavicinia lyellii* (HOOK.) GRAY
- 86. *Pallavicinia levieri*** SCHIFFNER (Pallaviciniaceae)
Kabbinakad - SCHWARZ & FRAHM 2013
- 87. *Pallavicinia lyellii*** (HOOK.) GRAY (Pallaviciniaceae)
Agumbe - BAPNA & KACHROO 2000b; Bangalore - BAPNA & KACHROO 2000b (as *Pallavicinia crispata*); Karnataka - MANJU, RAJESH, MADHUSOODANAN 2009
- 88. *Phycolepidozia spec.*** (Cephalozellaceae)
Mt. Tadiandamol - GRADSTEIN, FRAHM, SCHWARZ, LAENEN, VANDERPOORTEN 2013
- 89. *Plagiochila elegans*** MITT. (Plagiochilaceae)
Agumbe - RAWAT & SRIVASTAVA 2008; Karnataka - SINGH, DEY, SINGH 2010

- 90. *Plagiochila flexuosa* MITT. (Plagiochilaceae)**
Kudremukh - BAPNA & KACHROO 2000b - RAWAT & SRIVASTAVA 2008
- 91. *Plagiochila fruticosa* MITT. (Plagiochilaceae)**
Karnataka - SINGH, DEY, SINGH 2010
Plagiochila grossevittata STEPHANI = *Plagiochila semidecurrans* (LEHM. & LINDENB.) LEHM. & LINDENB.
- 92. *Plagiochila himalayana* SCHIFFNER (Plagiochilaceae)**
Kudremukh - [Coll./herb. no. PFLEIDERER, I. 67762 (G), 04/1911]
Plagiochila kudremuktii STEPHANI = *Plagiochila himalayana* SCHIFFNER
- 93. *Plagiochila nepalensis* LINDENB. (Plagiochilaceae)**
Karnataka - SINGH, DEY, SINGH 2010; Nandi Hills - RAWAT & SRIVASTAVA 2008
- 94. *Plagiochila semidecurrans* (LEHM. & LINDENB.) LEHM. & LINDENB. (Plagiochilaceae)**
Kudremukh - [Coll./herb. no. PFLEIDERER, I. 61545 (G), 04/1911]
- 95. *Ptychanthus striatus* (LEHM. & LINDENB.) NEES (Lejeuneaceae)**
Agumbe - ALAM 2012; Jog Falls - ALAM 2012; Karnataka - SINGH, DEY, SINGH 2010; Nandi Hills - ALAM 2012
Ptychocoleus mangaloreus STEPHANI = *Schiffneriolejeunea pulopenangensis* (GOTTSCHE) GRADST.
- 96. *Radula campanigera* MONT. (Radulaceae)**
Kudremukh - BAPNA & KACHROO 2000b
- 97. *Radula javanica* GOTTSCHE (Radulaceae)**
Kudremukh - UDAR & KUMAR 1983 [Coll./herb. no. PFLEIDERER, I. 5016 (G), 04/1905]
- 98. *Radula pandei* UDAR & KUMAR, DHIRENDRA (Radulaceae)**
Agumbe - BAPNA & KACHROO 2000b - UDAR & KUMAR 1983 [Coll./herb. no. R. UDAR ET AL. 6268/82, 6282/82, 6293/82, 6295/82 (LWU), 28/09/1982] [Coll./herb. no. S.K. PANDE; K.P. SRIVASTAVA 5428/50, 5429/50 (LWU), 15/10/1950] [Coll./herb. no. D. KUMAR, A. KUMAR, U.S. AWASTHI 4701/81, 4706/81 (LWU), 03/05/1981];
Madikeri - BAPNA & KACHROO 2000b - UDAR & KUMAR 1983 [Coll./herb. no. D. KUMAR, A. KUMAR, U.S. AWASTHI 4630/81, 4636/81, 4649/81 (LWU), 01/05/1981] - VERMA & SRIVASTAVA 2011 [Coll./herb. no. D. KUMAR, A. KUMAR, U.S. AWASTHI 4630/81 (LWU), 01/05/1981] [Coll./herb. no. D. KUMAR, A. KUMAR, U.S. AWASTHI 4630/81 (LWU), 01/05/1981]
- 99. *Reboulia hemisphaerica* (L.) RADDI (Aytoniaceae)**
Karnataka - SINGH, DEY, SINGH 2010; North Canara - BAPNA & KACHROO 2000b
Rectolejeunea aloba (SANDE LAC.) STEPHANI = *Lejeunea aloba* SANDE LAC.
- 100. *Rectolejeunea olivacea* (STEPHANI) S.C. SRIVAST. & A. AGARWAL (Lejeuneaceae)**
Agumbe - BAPNA & KACHROO 2000b - SRIVASTAVA & AGARWAL 1986 [Coll./herb. no. D. KUMAR, A. KUMAR, U.S. AWASTHI 5015/81 (LWU), 04/05/1981]
- 101. *Rhaphidolejeunea yunnanensis* P.C. CHEN (Lejeuneaceae)**
Agumbe - BAPNA & KACHROO 2000b

102. *Riccardia levieri* SCHIFFNER (Aneuraceae)

Bangalore - BAPNA & KACHROO 2000b; Karnataka - SINGH, DEY, SINGH 2010 - SINGH & SINGH 2007

103. *Riccia billardieri* MONT. & NEES EX GOTTSCHKE, LINDENB. & NEES (Ricciaceae)

Karnataka - BAG, SINGH, BHATTACHARYA 2007 - SINGH, DEY, SINGH 2010 - SINGH & GOSH 2007

104. *Riccia discolor* LEHM. & LINDENB. (Ricciaceae)

Agumbe - BAPNA & KACHROO 2000b; Jog Falls - BAPNA & KACHROO 2000b; Mangalore - BAPNA & KACHROO 2000b

105. *Riccia huebeneriana* LINDENB. (Ricciaceae)

Karnataka - BAG, SINGH, BHATTACHARYA 2007; Mangalore - BAPNA & KACHROO 2000b

106. *Riccia mangalorica* AHMAD EX JOVET-AST (Ricciaceae)

Mangalore - AHMAD 1942

107. *Riccia plana* TAYLOR (Ricciaceae)

Mangalore - BAPNA & KACHROO 2000b

Saccogyna subalternifolia STEPHANI = *Notoscyphus paroicus* SCHIFFNER

108. *Schiffneriolejeunea indica* (STEPAHNI) UDAR & AWASTHI (Lejeuneaceae)

Mangalore - UDAR & AWASTHI 1982 [Coll./herb. no. RAO, A.R. 1100 S/38 (LWU), 22/06/1938] [Coll./herb. no. PFLEIDERER, I. 14999/1938 (G - Type)] - VERMA & SRIVASTAVA 2011 [Coll./herb. no. PFLEIDERER, I. 14999/1938 (G - Type), 22/06/1938]

109. *Schiffneriolejeunea pulopenangensis* (GOTTSCHKE) GRADST. (Lejeuneaceae)

Mangalore - [Coll./herb. no. PFLEIDERER, I. 112096 (G), 08/1907] [Coll./herb. no. PFLEIDERER, I. 112094 (G), 08/1906] [Coll./herb. no. PFLEIDERER, I. 67008 (G)]

110. *Solenostoma tetragonum* (LINDENB.) R.M. SCHUST. EX VÁNA & D.G. LONG

(Jungermanniaceae)

South Canara - BAPNA & KACHROO 2000a (as *Jungermannia tetragona*)

111. *Spruceanthus semirepandus* (NEES) VERD. (Lejeuneaceae)

Karnataka - MANJU, RAJESH, MADHUSOODANAN 2009; Kudremukh - ALAM 2012 - BAPNA & KACHROO 2000b

112. *Targionia hypophylla* L. (Targioniaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - MANJU, RAJESH, MADHUSOODANAN 2009; Mysore - BAPNA & KACHROO 2000b

Taxilejeunea eckloniana (LINDENB.) A. AGARWAL = *Lejeunea eckloniana* LINDENB.

113. *Taxilejeunea tenerrima* STEPHANI (Lejeuneaceae)

Kudremukh - BAPNA & KACHROO 2000b

6. Musci

Acrocryphaea concavifolia (GRIFF.) BOSCH & SANDE LAC. = *Schoenobryum concavifolium* (GRIFF.)

GANGULEE

1. *Actinodontium raphidostegum* (MÜLL. HAL.) BOSCH & SANDE LAC. (Daltoniaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Kanara - GANGULEE 1974-1977; Karnataka - FRAHM, SCHWARZ, MANJU 2013

2. *Aerobryidium aureonitens* (HOOK. EX SCHWÄGR.) BROTH. (Meteoriaceae)

Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/542, 20/01/1973]

3. *Aerobryidium filamentosum* (HOOK.) M. FLEISCH. (Meteoriaceae)

Biligiriranga Hills - [Coll./herb. no. SCHWARZ, U. 10868, 31/12/2012]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Virajpet - BROTHERUS 1899 (as *Meteorium filamentosum*) [Coll./herb. no. WALKER, T.L. 140]

4. *Aerobryopsis longissima* (DOZY & MOLK.) M. FLEISCH. (Meteoriaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1974-1977; Murnad - BROTHERUS 1899 (as *Aerobryum longissimum*) [Coll./herb. no. WALKER, T.L. 108]

Aerobryum longissimum (DOZY & MOLK.) MÜLL. HAL. = *Aerobryopsis longissima* (DOZY & MOLK.) M.

FLEISCH.

5. *Anoetangium stracheyanum* MITT. (Pottiaceae)

Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/520, 20/01/1973]

6. *Anoetangium walkeri* BROTH. (Pottiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 277]

7. *Anomobryum auratum* (MITT.) A. JAEGER (Bryaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/523, 20/01/1973]

8. *Anomobryum cymbifolium* (LINDB.) BROTH. (Bryaceae)

Sidapur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 258]

9. *Archidium birmannicum* MITT. EX DIXON (Archidiaceae)

Jog Falls - [Coll./herb. no. SEDGWICK, L.J. 964681 (BM), 10/1919] - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6477, 10/1919]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Karwar - [Coll./herb. no. SEDGWICK, L.J. 964679 (BM), 10/1919] - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6383, 10/1919]; Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/528, 20/01/1973] [Coll./herb. no. TOWNSEND, C.C. 73/531, 20/01/1973]

Atrichum pallidum RENAULD & CARDOT = *Atrichum subserratum* (HARV. & HOOK. F.) MITT.

10. *Atrichum subserratum* (HARV. & HOOK. F.) MITT. (Polytrichaceae)

Kabbinakad - SCHWARZ & FRAHM 2013 (as *Atrichum pallidum*); Nandi Hills - TOWNSEND 1988 (as *Atrichum pallidum*) [Coll./herb. no. TOWNSEND, C.C. 73/529, 20/01/1973]

11. *Barbella bombycina* (RENAULD & CARDOT) M. FLEISCH. (Meteoriaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

Barbella convolvens (MITT.) BROTH. = *Pseudotrachypus convolvens* (MITT.) W.R. BUCK

Barbella cubensis (MITT.) BROTH. = *Barbella trichophora* (MONT.) M. FLEISCH.

Barbella pendula (SULL.) M. FLEISCH. = *Neodictyella pendula* (SULL.) W.R. BUCK

12. *Barbella rufifolia* (THWAITES & MITT.) BROTH. (Meteoriaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Siddapur - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6488]

Barbella trichophora (MONT.) M. FLEISCH. = *Barbelopsis trichophora* (MONT.) W.R. BUCK

13. *Barbella trichophora* (MONT.) M. FLEISCH. (Meteoriaceae)

Kodagu (Coorg) - GANGULEE 1974-1977 (as *Barbella cubensis*)

14. *Barbelopsis trichophora* (MONT.) W.R. BUCK (Meteoriaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013 (as *Barbella trichophora*); Madikeri - BROTHERUS 1899 (as

Meteorium enerve) [Coll./herb. no. WALKER, T.L. 58]; Nalknad Palace - BROTHERUS 1899 (as *Meteorium*

enerve) [Coll./herb. no. WALKER, T.L. 323]; Paluru - BROTHERUS 1899 (as *Meteorium enerve*) [Coll./herb. no.

WALKER, T.L. 40]

15. *Barbula arcuata* GRIFF. (Pottiaceae)

Hatur - BROTHERUS 1899 (as *Barbula comosa*) [Coll./herb. no. WALKER, T.L. 186]; Karnataka - FRAHM,

SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 (as *Barbula comosa*) [Coll./herb. no. WALKER, T.L. 78]

Barbula comosa DOZY & MOLK. = *Barbula arcuata* GRIFF.

16. *Barbula consanguinea* (THWAITES & MITT.) A. JAEGER (Pottiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Nigadi - [Coll./herb. no. SEDGWICK, L.J. 1006667 (BM), 1919];

Shiggaon - [Coll./herb. no. SEDGWICK, L.J. 749401 (BM)] - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 3487]

17. *Barbula dharvarensis* DIXON (Pottiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Nigadi - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 5703]

18. *Barbula indica* (HOOK.) SPRENG. (Pottiaceae)

Bangalore - AZIZ & VOHRA 2008 [Coll./herb. no. GANGULEE, H.C. 3174, 3177, 10/1958]; Kabbinakad -

SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Nandi Hills - TOWNSEND 1988

[Coll./herb. no. TOWNSEND, C.C. 73/533, 20/01/1973]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L.

156]

19. *Barbula indica* fo. *sterilis* (M. FLEISCH.) DIXON (Pottiaceae)

Sampkhand - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6432]

20. *Barbula spathulifolia* (DIXON & P. DE LA VARDE) R.H. ZANDER (Pottiaceae)

Kankanady - [Coll./herb. no. PFLEIDERER, I. 963416 (BM, Pfeleiderer No. 19), 17/11/1925] - AZIZ & VOHRA 2008

(as *Hydrogonium spathulifolium*) [Coll./herb. no. FOREAU, G. Foreau 19 (BM), 17/11/1925]; Karnataka -

FRAHM, SCHWARZ, MANJU 2013

21. *Brachymenium bryoides* HOOK. EX SCHWÄGR. (Bryaceae)

Hatur - BROTHERUS 1899 (as *Brachymenium weissia*) [Coll./herb. no. WALKER, T.L. 185]; Madikeri -

BROTHERUS 1899 (as *Brachymenium weissia*) [Coll./herb. no. WALKER, T.L. 38]; Murnad - BROTHERUS 1899

(as *Brachymenium weissia*) [Coll./herb. no. WALKER, T.L. 83]

22. *Brachymenium exile* (DOZY & MOLK.) BOSCH & SANDE LAC. (Bryaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/516, 20/01/1973] [Coll./herb. no. TOWNSEND, C.C. 73/538, 20/01/1973]

Brachymenium leptostomoides (MÜLL. HAL.) A. JAEGER = *Brachymenium systylium* (MÜLL. HAL.) A. JAEGER

23. *Brachymenium longicolle* THÉR. (Bryaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

24. *Brachymenium nepalense* HOOK. (Bryaceae)

Hatur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 321] [Coll./herb. no. WALKER, T.L. 184]; Hulical - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 90441C, 16/10/1964]; Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 2]; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 67] [Coll./herb. no. WALKER, T.L. 67]; Murnad - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 91]; Pollebetta - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 233]; Shimoga - RAGHAVAN & WADHWA 1970; Sidapur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 270]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 128]

25. *Brachymenium systylium* (MÜLL. HAL.) A. JAEGER (Bryaceae)

Murnad - BROTHERUS 1899 (as *Brachymenium leptostomoides*) [Coll./herb. no. WALKER, T.L. 89]

26. *Brachymenium turgidum* BROTH. EX DIXON (Bryaceae)

Castle Rock - SEDGWICK 1911; Dharwad - [Coll./herb. no. SEDGWICK, L.J. 983793 (BM), 03/1918] - DIXON 1921 (as *Brachymenium turgidum* var. *nanum*) [Coll./herb. no. SEDGWICK, L.J. 3591]; Konankeri - [Coll./herb. no. SEDGWICK, L.J. 983792 (BM), 02/1918] - DIXON 1921 (as *Brachymenium turgidum* var. *nanum*) [Coll./herb. no. SEDGWICK, L.J. 3509]; Tadas - [Coll./herb. no. SEDGWICK, L.J. 983791 (BM), 03/1918] - DIXON 1921 (as *Brachymenium turgidum* var. *nanum*) [Coll./herb. no. SEDGWICK, L.J. 5373]

Brachymenium turgidum var. *nanum* DIXON = *Brachymenium turgidum* BROTH. EX DIXON

27. *Brachymenium walkeri* BROTH. (Bryaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 27] [Coll./herb. no. WALKER, T.L. 10] [Coll./herb. no. WALKER, T.L. 47]; Murnad - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 81]; Paluru - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 43]; Pollebetta - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 213]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 124, 154]

Brachymenium weissia HOOK. = *Brachymenium bryoides* HOOK. EX SCHWÄGR.

28. *Brachythecium buchananii* (HOOK.) A. JAEGER (Hypnaceae)

Hatur - BROTHERUS 1899 (as *Hypnum buchanani*) [Coll./herb. no. WALKER, T.L. 187]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/524, 20/01/1973]

29. *Brachythecium procumbens* (MITT.) A. JAEGER (Brachytheciaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Virajpet - BROTHERUS 1899 (as *Hypnum procumbens*) [Coll./herb. no. WALKER, T.L. 16]

30. *Bryosedgwickia densa* (HOOK.) BIZOT & P. DE LA VARDE (Hypnaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Vanakaeabbi Falls - RAGHAVAN & WADHWA 1968

[Coll./herb. no. RAGHAVAN, R.S. 62547A, 16/05/1960] - RAGHAVAN & WADHWA 1970 [Coll./herb. no. RAGHAVAN, R.S. 62547A, 19/05/1960]

Bryosedgwickia kirtikarii CARDOT & DIXON = *Platygyriella kirtikarii* (CARDOT & DIXON) W.R. BUCK

Bryum andrei CARDOT & P. DE LA VARDE = *Bryum paradoxum* SCHWÄGR.

31. *Bryum apalodictyoides* MÜLL. HAL. (Bryaceae)

Hatur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 189] [Coll./herb. no. WALKER, T.L. 191]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Nalknad Palace - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 325]

32. *Bryum apiculatum* SCHWÄGR. (Bryaceae)

Agumbe - RAGHAVAN & WADHWA 1968 (as *Bryum ghatense*) [Coll./herb. no. RAGHAVAN, R.S. 62807, 21/05/1960]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Shimoga - RAGHAVAN & WADHWA 1970 (as *Bryum ghatense*)

33. *Bryum argenteum* HEDW. (Bryaceae)

Agumbe - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62804B, 21/05/1960]; Castle Rock - DIXON 1911 (as *Bryum argenteum* var. *australe*) [Coll./herb. no. GAMMIE, G.A. 100 (collection no. Sedgwick), 1892] - SEDGWICK 1913 (as *Bryum argenteum* var. *australe*); Hatur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 193]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 67] [Coll./herb. no. WALKER, T.L. 31] [Coll./herb. no. WALKER, T.L. 39]; Shiggaon - DIXON 1921 (as *Bryum argenteum* var. *australe*) [Coll./herb. no. SEDGWICK, L.J. 3486]; Shimoga - RAGHAVAN & WADHWA 1970

Bryum argenteum var. *australe* REHMANN EX DIXON = *Bryum argenteum* HEDW.

34. *Bryum argenteum* var. *lanatum* (P. BEAUV.) HAMPE (Bryaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

35. *Bryum billarderi* SCHWÄGR. (Bryaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Virajpet - MOHAMED 1979 (as *Bryum neelgheriense*)

36. *Bryum coronatum* SCHWÄGR. (Bryaceae)

Agumbe - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62805, 21/05/1960]; Hulical - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 90441A, 16/10/1964]; Kanagalgudda - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 90100B, 20/08/1963]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Shimoga - RAGHAVAN & WADHWA 1970

37. *Bryum doliolum* DUBY (Bryaceae)

Pollebetta - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 215]; Ponnepet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 238]; Titimati - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 259]

Bryum erythrinum MITT. = *Bryum thomsonii* MITT.

38. *Bryum euryphyllum* DIXON & P. DE LA VARDE (Bryaceae)

Kankanady - DIXON & POTIER DE LA VARDE 1927 [Coll./herb. no. FOREAU, G. 26, 17/02/1926]

Bryum ghatense BROTH. & DIXON = *Bryum apiculatum* SCHWÄGR.

Bryum giganteum (SCHWÄGR.) ARN. = *Rhodobryum giganteum* (SCHWÄGR.) PARIS

Bryum medianum MITT. = *Bryum neelgheriense* MONT.

Bryum neelgheriense MONT. = *Bryum billarderi* SCHWÄGR.

39. *Bryum neelgheriense* MONT. (Bryaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013 (as *Bryum medianum*); Ponnepet - BROTHERUS 1899 (as *Bryum medianum*) [Coll./herb. no. WALKER, T.L. 249]

40. *Bryum paradoxum* SCHWÄGR. (Bryaceae)

Nandi Hills - TOWNSEND 1988 (as *Bryum andrei*) [Coll./herb. no. TOWNSEND, C.C. 73/525, 20/01/1973]

41. *Bryum porphyroneuron* var. *erythrinum* (MITT.) M. FLEISCH. (Bryaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1974-1977

42. *Bryum ramosum* (HARV.) MITT. (Bryaceae)

Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 290]

Bryum srilankense MOHAMED = *Bryum wightii* MITT.

43. *Bryum thomsonii* MITT. (Bryaceae)

Gonikopaul - BROTHERUS 1899 (as *Bryum erythrinum*) [Coll./herb. no. WALKER, T.L. 203]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 (as *Bryum erythrinum*) [Coll./herb. no. WALKER, T.L. 33]; Pollebetta - BROTHERUS 1899 (as *Bryum erythrinum*) [Coll./herb. no. WALKER, T.L. 214]; Virajpet - BROTHERUS 1899 (as *Bryum erythrinum*) [Coll./herb. no. WALKER, T.L. 145]

44. *Bryum tuberosum* MOHAMED & DAMANHURI (Bryaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013 (as *Rosulabryum tuberosum*); Udupi - MANJU, RAJESH, MADHUSOODANAN 2004 [Coll./herb. no. RAJESH, K.P. CU 80140 (CALI)]

45. *Bryum wightii* MITT. (Bryaceae)

Hulical - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 90441B, 16/10/1964]; Kabbinakad - SCHWARZ & FRAHM 2013; Kanagaludda - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 90099, 20/08/1963]; Karnataka - FRAHM, SCHWARZ, MANJU 2013 (as *Bryum srilankense*); Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 280] - MOHAMED 1982; Nalknad Palace - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 329] - MOHAMED 1982 (as *Bryum srilankense*)

46. *Callicostella papillata* (MONT.) MITT. (Pilotrichaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013

47. *Callicostella papillata* fo. *purpurascens* DIXON (Pilotrichaceae)

Sampkhand - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6439]

48. *Calymperes afzelii* SW. (Calymperaceae)

Kabbinakad - [Coll./herb. no. J.-P. FRAHM; F. SCHUMM; U. SCHWARZ 10685, 10686, 10687, 10688 (herb. U. Schwarz), 04/11/2012]

49. *Calymperes erosum* MÜLL. HAL. (Calymperaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Sidapur - [Coll./herb. no. SEDGWICK, L.J. 518365 (BM)];

Siddapur - DIXON 1921 (as *Calymperes fordii*) [Coll./herb. no. SEDGWICK, L.J. 6486]; Udupi - [Coll./herb. no. PFLEIDERER, I. 851893 (BM)]

Calymperes fordii BESCH. = *Calymperes erosum* MÜLL. HAL.

50. *Calymperes lonchophyllum* SCHWÄGR. (Calymperaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Siddapur - [Coll./herb. no. SEDGWICK, L.J. 851954 (BM), 10/1919] - DIXON 1921 (as *Calymperes nietneri* var. *atro-viride*) [Coll./herb. no. SEDGWICK, L.J. 6482]

51. *Calymperes mangaloreense* DIXON & P. DE LA VARDE (Calymperaceae)

Kankanady - [Coll./herb. no. PFLEIDERER, I. 518431 (BM, Pflleiderer No. 22), 19/11/1925] - DIXON & POTIER DE LA VARDE 1927 [Coll./herb. no. FOREAU, G. 22, 19/11/1925]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mangalore - [Coll./herb. no. PFLEIDERER, I. 518416 (BM), 09/1906] - ELLIS 1989 [Coll./herb. no. PFLEIDERER, I. 18 (Bryotheca Levier 6829), 09/1906]; Udupi - [Coll./herb. no. PFLEIDERER, I. 518432 (BM, Pflleiderer No. 37a)]

Calymperes nietneri var. *atro-viride* DIXON = *Calymperes lonchophyllum* SCHWÄGR.

52. *Calypothecium recurvulum* (BROTH.) BROTH. (Pterobryaceae)

Kanara Jungles - [Coll./herb. no. MAXWELL, R.M. 987773 (BM), 02/1908] [Coll./herb. no. MAXWELL, R.M. 987774 (BM), 02/1908] [Coll./herb. no. MAXWELL, R.M. 987772 (BM), 02/1908]

53. *Calypothecium urvilleanum* (MÜLL. HAL.) BROTH. (Pterobryaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1974-1977; South Coorg - BROTHERUS 1899 (as *Meteorium tumidum*) [Coll./herb. no. WALKER, T.L. 296]

54. *Calypothecium wightii* (MITT.) M. FLEISCH. (Pterobryaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Murnad - BROTHERUS 1899 (as *Pterobryum patulum*) [Coll./herb. no. WALKER, T.L. 88]

Campyodontium flavescens (HOOK.) BOSCH & SANDE LAC. = *Mesonodon flavescens* (HOOK.) W.R. BUCK

Campylopodium griffithii (MITT.) MITT. EX BROTH. = *Dicranella griffithii* (MITT.) A. JAEGER

Campylopodium khasianum (GRIFFITHS) PARIS = *Microcampylopus khasianus* (GRIFFITHS) GIESE & J.-P. FRAHM

55. *Campylopus ericoides* (GRIFF.) A. JAEGER (Dicranaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Nandi Hills - TOWNSEND 1988 (as *Campylopus involutus*) [Coll./herb. no. TOWNSEND, C.C. 73/528, 20/01/1973]

56. *Campylopus fragilis* subsp. *goughii* (MITT.) J.-P. FRAHM (Dicranaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Paluru - BROTHERUS 1899 (as *Campylopus goughii*) [Coll./herb. no. WALKER, T.L. 44]

Campylopus goughii (MITT.) A. JAEGER = *Campylopus fragilis* subsp. *goughii* (MITT.) J.-P. FRAHM

Campylopus involutus (MÜLL. HAL.) A. JAEGER = *Campylopus ericoides* (GRIFF.) A. JAEGER

Campylopus nigrescens (MITT.) A. JAEGER = *Campylopus umbellatus* (SCHWÄGR. & GAUDICH. EX ARN.) PARIS

57. *Campylopus recurvus* (MITT.) A. JAEGER (Dicranaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

- 58. *Campylopus schmidii*** (MÜLL. HAL.) A. JAEGER (Dicranaceae)
Mt. Tadiandamol - SCHWARZ & FRAHM 2013
- 59. *Campylopus umbellatus*** (SCHWÄGR. & GAUDICH. EX ARN.) PARIS (Dicranaceae)
Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 (as *Campylopus nigrescens*) [Coll./herb. no. WALKER, T.L. 34, 274]; Mt. Tadiandamol - SCHWARZ & FRAHM 2013; Murnad - BROTHERUS 1899 (as *Campylopus nigrescens*) [Coll./herb. no. WALKER, T.L. 93]
- 60. *Chameleion peguense*** (BESCH.) L.T. ELLIS & A. EDDY (Calymperaceae)
Karnataka - FRAHM, SCHWARZ, MANJU 2013; Udupi - [Coll./herb. no. PFLEIDERER, I. 663181 (BM, Pflleiderer No. 37)] [Coll./herb. no. PFLEIDERER, I. 663193 (BM)]
- 61. *Chionostomum rostratum*** (GRIFF.) MÜLL. HAL. (Sematophyllaceae)
Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1978-1980; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 64, 65]; Mt. Tadiandamol - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 302]; Sidapur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 266]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 131]
- 62. *Claopodium prionophyllum*** (MÜLL. HAL.) BROTH. (Thuidiaceae)
Kabbinakad - SCHWARZ & FRAHM 2013
- 63. *Cryptopapillaria fuscescens*** (HOOK.) M. MENZEL (Metoriaceae)
Agumbe - RAGHAVAN & WADHWA 1968 (as *Papillaria fuscescens*) [Coll./herb. no. RAGHAVAN, R.S. 62530C]; Hatur - BROTHERUS 1899 (as *Papillaria fuscescens*) [Coll./herb. no. WALKER, T.L. 171, 177]; Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - NOGUCHI 1976 (as *Papillaria fuscescens*); Madikeri - BROTHERUS 1899 (as *Papillaria fuscescens*) [Coll./herb. no. WALKER, T.L. 63]; Murnad - BROTHERUS 1899 (as *Papillaria fuscescens*) [Coll./herb. no. WALKER, T.L. 96]; Paluru - BROTHERUS 1899 (as *Papillaria fuscescens*) [Coll./herb. no. WALKER, T.L. 41]; Shimoga - RAGHAVAN & WADHWA 1970 (as *Papillaria fuscescens*); Virajpet - BROTHERUS 1899 (as *Papillaria fuscescens*) [Coll./herb. no. WALKER, T.L. 141]
- Ctenidium stereodontoides* DIXON = *Ectropothecium stereodontoides* (DIXON) WIJK & MARGAD.
- 64. *Curviciadium kurzii*** (KINDB.) ENROTH (Neckeraceae)
Kabbinakad - SCHWARZ & FRAHM 2013
- 65. *Cyathophorum adiantum*** (GRIFF.) MITT. (Daltoniaceae)
Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mt. Tadiandamol - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 314] - SCHWARZ & FRAHM 2013
- 66. *Cyrto-hypnum tamariscellum*** (MÜLL. HAL.) W.R. BUCK & H.A. CRUM (Thuidiaceae)
Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1978-1980 (as *Thuidium tamariscellum*); Virajpet - BROTHERUS 1899 (as *Thuidium tamariscellum*) [Coll./herb. no. WALKER, T.L. 144]
- 67. *Daltonia reticulata*** MÜLL. HAL. (Daltoniaceae)
Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mt. Tadiandamol - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 301]

68. *Dendropogonella rufescens* (SCHIMP.) E. BRITTON (Cryphaeaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Shimoga - RAGHAVAN & WADHWA 1970 [Coll./herb. no. RAGHAVAN, R.S. 62764A, 20/05/1960]; Someshwar - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62764A, 20/05/1960]

69. *Diaphanodon blandus* (HARV.) RENAULD & CARDOT (Trachypodaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1974-1977; Madikeri - BROTHERUS 1899 (as *Trachypus blandus*) [Coll./herb. no. WALKER, T.L. 15] [Coll./herb. no. WALKER, T.L. 66]; Madikeri, Mangalore Road - BROTHERUS 1899 (as *Trachypus blandus*) [Coll./herb. no. WALKER, T.L. 70]

70. *Dicranella griffithii* (MITT.) A. JAEGER (Dicranaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GIESE & FRAHM 1985b; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 76] [Coll./herb. no. WALKER, T.L. 60] - GIESE & FRAHM 1985b [Coll./herb. no. PFLEIDERER, I. PC] [Coll./herb. no. PFLEIDERER, I. 7062 (PC)]; Paluru - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 42]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 157]

71. *Dicranella pomiformis* (GRIFF.) A. JAEGER (Dicranaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 96, 273]

72. *Dixonia orientalis* (MITT.) H. AKIY. & TSUBOTA (Lembophyllaceae)

Mt. Tadiandamol - SCHWARZ & FRAHM 2013

73. *Ectropothecium compressifolium* (MITT.) A. JAEGER (Hypnaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; North Kanara - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6450]

74. *Ectropothecium cyperoides* (HOOK. EX HARV.) A. JAEGER (Hypnaceae)

Gonikopaul - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 250]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 281]; Mt. Tadiandamol - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 304]; Pollebetta - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 162] [Coll./herb. no. WALKER, T.L. 222]; Sidapur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 264]; South East Coorg - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 256]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 112]; Watekoli - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 148]

Ectropothecium reticulatum (DOZY & MOLK.) BESCH. = *Vesicularia reticulata* (DOZY & MOLK.) BROTH.

75. *Ectropothecium stereodontoides* (DIXON) WIJK & MARGAD. (Hypnaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Sampkhand - [Coll./herb. no. SEDGWICK, L.J. 850165 (BM), 10/1919] - DIXON 1921 (as *Ctenidium stereodontoides*) [Coll./herb. no. SEDGWICK, L.J. 6445]

76. *Entodon chloropus* RENAULD & CARDOT (Entodontaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

77. *Entodon plicatus* MÜLL. HAL. (Entodontaceae)

Anmod - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 3308]; Begar - RAGHAVAN & WADHWA 1968

[Coll./herb. no. RAGHAVAN, R.S. 83305B, 17/10/1962]; Kanara - GANGULEE 1978-1980; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Murnad - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 92, 111]; Pollebetta - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 220]

78. *Entodontopsis anceps* (BOSCH & SANDE LAC.) W.R. BUCK & R.R. IRELAND
(Stereophyllaceae)

Kanara - GANGULEE 1978-1980 (as *Stereophyllum anceps*); Karnataka - FRAHM, SCHWARZ, MANJU 2013; Konankeri - DIXON 1921 (as *Stereophyllum anceps*) [Coll./herb. no. SEDGWICK, L.J. 4759]

79. *Entodontopsis nitens* (MITT.) W.R. BUCK & R.R. IRELAND (Stereophyllaceae)

Nandi Hills - TOWNSEND 1988 (as *Stereophyllum ligulatum*) [Coll./herb. no. TOWNSEND, C.C. 73/548, 20/01/1973]

80. *Entodontopsis wightii* (MITT.) W.R. BUCK & R.R. IRELAND (Stereophyllaceae)

Kanara - GANGULEE 1978-1980 (as *Stereophyllum wightii*); Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1978-1980 (as *Stereophyllum wightii*); Madikeri - BROTHERUS 1899 (as *Stereophyllum wightii*) [Coll./herb. no. WALKER, T.L. 6]; Pollebetta - BROTHERUS 1899 (as *Stereophyllum wightii*) [Coll./herb. no. WALKER, T.L. 212]; Ponnappet - BROTHERUS 1899 (as *Stereophyllum wightii*) [Coll./herb. no. WALKER, T.L. 245, 246]; Watekoli - BROTHERUS 1899 (as *Stereophyllum wightii*) [Coll./herb. no. WALKER, T.L. 149]

81. *Entosthodon buseanus* DOZY & MOLK. (Funariaceae)

Kabbinakad - SCHWARZ & FRAHM 2013 (as *Entosthodon wallichii*)

Entosthodon wallichii MITT. = *Entosthodon buseanus* DOZY & MOLK.

82. *Erythrodonium julaceum* (HOOK. EX SCHWÄGR.) PARIS (Entodontaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1978-1980; Madikeri - BROTHERUS 1899 (as *Erythrodonium juliforme*) [Coll./herb. no. WALKER, T.L. 85]; Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/547, 20/01/1973]; South Coorg - BROTHERUS 1899 (as *Erythrodonium juliforme*) [Coll./herb. no. WALKER, T.L. 210]

Erythrodonium juliforme PARIS = *Erythrodonium julaceum* (HOOK. EX SCHWÄGR.) PARIS

83. *Fissidens anomalus* MONT. (Fissidentaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mt. Tadiandamol - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 310]

84. *Fissidens biformis* MITT. (Fissidentaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013 (as *Fissidens coorgensis*); Kodagu (Coorg) - GANGULEE 1969-1972; Sidapur - [Coll./herb. no. WALKER, T.L. 1094185 (BM)] - BROTHERUS 1899 (as *Fissidens coorgensis*) [Coll./herb. no. WALKER, T.L. 267]

85. *Fissidens bryoides* subsp. *schmidii* (MÜLL. HAL.) NORK. (Fissidentaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mangalore - GANGULEE 1969-1972

86. *Fissidens carnosus* BROTH. (Fissidentaceae)

Hatur - [Coll./herb. no. WALKER, T.L. 1094201 (BM)] - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 178];
Karnataka - FRAHM, SCHWARZ, MANJU 2013

Fissidens coorgensis BROTH. = *Fissidens bififormis* MITT.

87. *Fissidens crassinervis* var. *laxus* (SULL. & LESQ.) A. EDDY (Fissidentaceae)

Kankanady - DIXON & POTIER DE LA VARDE 1927 (as *Fissidens immutatus*) [Coll./herb. no. FOREAU, G. 12, 16, 16/02/1925]; Karnataka - FRAHM, SCHWARZ, MANJU 2013 (as *Fissidens immutatus*); Karwar - [Coll./herb. no. SEDGWICK, L.J. 1094225 (BM), 10/1919] [Coll./herb. no. SEDGWICK, L.J. 1094224 (BM), 10/1919] - DIXON 1921 (as *Fissidens immutatus*) [Coll./herb. no. SEDGWICK, L.J. 6380]; Sirsi - [Coll./herb. no. SEDGWICK, L.J. 1094226 (BM), 10/1919] - DIXON 1921 (as *Fissidens immutatus*)

88. *Fissidens crispulus* BRID. (Fissidentaceae)

Guddahalli Hill - DIXON 1921 (as *Fissidens zippelianus*) [Coll./herb. no. SEDGWICK, L.J. 6399]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Karwar - DIXON 1921 (as *Fissidens zippelianus*) [Coll./herb. no. SEDGWICK, L.J. 6376]; Kodagu (Coorg) - GANGULEE 1969-1972 (as *Fissidens zippelianus*); Nandi Hills - TOWNSEND 1988 (as *Fissidens sylvaticus*) [Coll./herb. no. TOWNSEND, C.C. 73/517, 20/01/1973]; Sampkhand - DIXON 1921 (as *Fissidens zippelianus*) [Coll./herb. no. SEDGWICK, L.J. 6448]

Fissidens elimbatus BROTH. = *Fissidens walkeri* var. *elimbatus* (BROTH.) DIXON

89. *Fissidens excedens* BROTH. (Fissidentaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Sidapur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 284]

90. *Fissidens flaccidus* MITT. (Fissidentaceae)

Bangalore - [Coll./herb. no. SCHWARZ, U. 10631, 10/06/2012]

91. *Fissidens fuscoviridis* THWAITES & MITT. (Fissidentaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 137]; Watekoli - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 149]

92. *Fissidens hollianus* DOZY & MOLK. (Fissidentaceae)

Anmod - [Coll./herb. no. SEDGWICK, L.J. 1094299 (BM)] [Coll./herb. no. SEDGWICK, L.J. 1094301 (BM)] [Coll./herb. no. SEDGWICK, L.J. 1094300 (BM)] - DIXON 1921 (as *Fissidens subfirmus*) [Coll./herb. no. SEDGWICK, L.J. 3266, 5375]; Karnataka - FRAHM, SCHWARZ, MANJU 2013 (as *Fissidens subfirmus*)

Fissidens immutatus DIXON = *Fissidens crassinervis* var. *laxus* (SULL. & LESQ.) A. EDDY

93. *Fissidens karwarensis* DIXON (Fissidentaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Karwar - [Coll./herb. no. SEDGWICK, L.J. 1094341 (BM), 10/1919] - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6368]; Shiggaon - [Coll./herb. no. SEDGWICK, L.J. 1094342 (BM), 1918] - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 3485]

94. *Fissidens lutescens* BROTH. (Fissidentaceae)

Kankanady - DIXON & POTIER DE LA VARDE 1927 [Coll./herb. no. FOREAU, G. 13, 18, 16/02/1925]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Virajpet - [Coll./herb. no. WALKER, T.L. 1094351 (BM), 12/1897] - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 159]

95. *Fissidens macrosporus* DIXON (Fissidentaceae)

Jog Falls - [Coll./herb. no. SEDGWICK, L.J. 1094354 (BM), 10/1919] [Coll./herb. no. SEDGWICK, L.J. 1094353 (BM), 10/1919] - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6463]; Karnataka - FRAHM, SCHWARZ, MANJU 2013

96. *Fissidens sedgwickii* BROTH. & DIXON (Fissidentaceae)

Castle Rock - [Coll./herb. no. SEDGWICK, L.J. 1147916 (BM)] - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 3417]; Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013

Fissidens splachnobryoides BROTH. = *Fissidens flaccidus* MITT.

Fissidens subfirmus DIXON = *Fissidens hollianus* DOZY & MOLK.

Fissidens sylvaticus GRIFF. = *Fissidens crispulus* BRID.

97. *Fissidens sylvaticus* var. *auriculatus* (MÜLL. HAL.) GANGULEE (Fissidentaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013

98. *Fissidens walkeri* BROTH. (Fissidentaceae)

Anmod - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 3265]; Bhagamandala - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 334]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Sampkhand - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6436]; Sirsi - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6459]

99. *Fissidens walkeri* var. *elimatus* (BROTH.) DIXON (Fissidentaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Tadas - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 3262]; Virajpet - BROTHERUS 1899 (as *Fissidens elimatus*) [Coll./herb. no. WALKER, T.L. 151]

Fissidens zippelianus DOZY & MOLK. = *Fissidens crispulus* BRID.

100. *Fissidens zollingeri* MONT. (Fissidentaceae)

Kanara - GANGULEE 1969-1972; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mirjan - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6414]

101. *Floribundaria floribunda* (DOZY & MOLK.) M. FLEISCH. (Metoriaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1974-1977

102. *Funaria hygrometrica* HEDW. (Funariaceae)

Hannageregudda - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 82769, 28/09/1962]; Hulical - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 83039, 08/10/1962]; Kabbinakad - SCHWARZ & FRAHM 2013; Kanalgudda - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 90100A, 23/08/1963]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Shimoga - RAGHAVAN & WADHWA 1970; Silviculturist Nursery Agumbe - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 83159, 12/10/1962]

103. *Funaria hygrometrica* var. *clavescens* (SCHWÄGR.) MONT. (Funariaceae)

Agumbe - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 82806, 21/05/1960]; Fraserpet (Kushalanagara) - BROTHERUS 1899 (as *Funaria leptopoda*) [Coll./herb. no. WALKER, T.L. 276]; Karnataka - FRAHM, SCHWARZ, MANJU 2013 (as *Funaria leptopoda*); Madikeri - BROTHERUS 1899 (as *Funaria leptopoda*) [Coll./herb. no. WALKER, T.L. 13, 55]; Paluru - BROTHERUS 1899 (as *Funaria leptopoda*)

- [Coll./herb. no. WALKER, T.L. 48, 54]; Virajpet - BROTHERUS 1899 (as *Funaria leptopoda*) [Coll./herb. no. WALKER, T.L. 118]; Watekoli - BROTHERUS 1899 (as *Funaria leptopoda*) [Coll./herb. no. WALKER, T.L. 152]
Funaria leptopoda GRIFF. = *Funaria hygrometrica* var. *clavescens* (SCHWÄGR.) MONT.
- 104. *Garckea abbreviata*** DIXON & P. DE LA VARDE (Ditrichaceae)
 Kankanady - [Coll./herb. no. FOREAU, G. 964974 (BM, Foreau No. 8), 16/11/1925] - DIXON & POTIER DE LA VARDE 1927 [Coll./herb. no. FOREAU, G. 8, 1925]
- 105. *Garckea flexuosa*** (GRIFF.) MARGAD. & NORK. (Ditrichaceae)
 Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013 (as *Garckea phascoides*); Madikeri - BROTHERUS 1899 (as *Garckea phascoides*) [Coll./herb. no. WALKER, T.L. 25] [Coll./herb. no. WALKER, T.L. 59, 72] [Coll./herb. no. WALKER, T.L. 160]; Mangalore - DIXON & POTIER DE LA VARDE 1927 (as *Garckea phascoides*); Virajpet - BROTHERUS 1899 (as *Garckea phascoides*) [Coll./herb. no. WALKER, T.L. 130]; Watekoli - BROTHERUS 1899 (as *Garckea phascoides*) [Coll./herb. no. WALKER, T.L. 153]
Garckea phascoides (HOOK.) DOZY & MOLK. = *Garckea flexuosa* (GRIFF.) MARGAD. & NORK.
- 106. *Himantocladium cyclophyllum*** (MÜLL. HAL.) M. FLEISCH. (Neckeraceae)
 Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Virajpet - BROTHERUS 1899 (as *Neckera rugulosa*) [Coll./herb. no. WALKER, T.L. 288]
- 107. *Himantocladium plumula*** (NEES) M. FLEISCH. (Neckeraceae)
 Kabbinakad - SCHWARZ & FRAHM 2013
- 108. *Holomitrium javanicum*** DOZY & MOLK. (Dicranaceae)
 Kabbinakad - SCHWARZ & FRAHM 2013
Homalia flabellata (SM.) BOSCH & SANDE LAC. = *Homaliodendron flabellatum* (SM.) M. FLEISCH.
- 109. *Homaliodendron crassinervium*** THÉR. (Neckeraceae)
 Kabbinakad - SCHWARZ & FRAHM 2013
- 110. *Homaliodendron exiguum*** (BOSCH & SANDE LAC.) M. FLEISCH. (Neckeraceae)
 Mt. Tadiandamol - SCHWARZ & FRAHM 2013
- 111. *Homaliodendron flabellatum*** (SM.) M. FLEISCH. (Neckeraceae)
 Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1974-1977; Mt. Tadiandamol - BROTHERUS 1899 (as *Homalia flabellata*) [Coll./herb. no. WALKER, T.L. 308, 309]
- 112. *Hydrogonium orientale*** (F. WEBER) KUCERA (Pottiaceae)
 Karnataka - SINGH & GOSH 2007 (as *Semibarbula orientalis*)
Hydrogonium spathulifolium (DIXON & P. DE LA VARDE) M.N. AZIZ & VOHRA = *Barbula spathulifolia* (DIXON & P. DE LA VARDE) R.H. ZANDER
- 113. *Hymenostomum edentulum*** (MITT.) BESCH. (Pottiaceae)
 Agumbe - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62804A, 21/05/1960]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Konankeri - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 3510]; Shimoga - RAGHAVAN & WADHWA 1970

114. *Hyophila cylindrica* (HOOK. EX HARV.) A. JAEGER (Pottiaceae)

Gonikopaul - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 201]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 18] [Coll./herb. no. WALKER, T.L. 11]; Mangalore - [Coll./herb. no. PFLEIDERER, I. 0719389 (PC), 08/1906]; Murnad - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 110]; Sidapur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 265]; Titimati - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 208, 254]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 122]

115. *Hyophila involuta* (HOOK.) A. JAEGER (Pottiaceae)

Bangalore - [Coll./herb. no. SCHWARZ, U. 10635, 10/06/2012]; Fraserpet (Kushalanagara) - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 271]; Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - DIXON 1921 - FRAHM, SCHWARZ, MANJU 2013 - SINGH & GOSH 2007; Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/539, 73/530, 20/01/1973]; Shimoga - RAGHAVAN & WADHWA 1970; Sunset Point (Agumbe) - RAGHAVAN & WADHWA 1968; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 125]

Hyophila walkeri BROTH. = *Tortella walkeri* (BROTH.) R.H. ZANDER

Hypnum buchanani HOOK. = *Brachythecium buchananii* (HOOK.) A. JAEGER

Hypnum herbaceum MITT. = *Rhynchostegium herbaceum* (MITT.) A. JAEGER

Hypnum procumbens MITT. = *Brachythecium procumbens* (MITT.) A. JAEGER

Hypnum vagans HARV. = *Oxyrrhynchium vagans* (A. JAEGER) IGNATOV & HUTTUNEN

116. *Hypopterygium tamariscina* (HEDW.) BRID. EX MÜLL. HAL. (Hypopterygiaceae)

Mt. Tadiandamol - SCHWARZ & FRAHM 2013

117. *Isopterygium lignicola* (MITT.) A. JAEGER (Hypnaceae)

Hatur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 179, 181]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Pollebetta - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 226] [Coll./herb. no. WALKER, T.L. 218]; Sidapur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 263]; South Coorg - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 206]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 133]

Isopterygium taxirameum (MITT.) A. JAEGER = *Taxiphyllum taxirameum* (MITT.) M. FLEISCH.

118. *Lepidopilum raphidostegum* (MÜLL. HAL.) BROTH. (Daltoniaceae)

Jog Falls - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6404]; Karnataka - FRAHM, SCHWARZ, MANJU 2013

119. *Leucobryum imbricatum* BROTH. (Dicranaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - [Coll./herb. no. LOWRIE, A.E. 0696454 (PC), 01/1896] [Coll./herb. no. LOWRIE, A.E. 0696455 (PC), 01/1896]; Murnad - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 107]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 292]

120. *Leucobryum juniperoideum* (BRID.) MÜLL. HAL. (Dicranaceae)

Mt. Tadiandamol - SCHWARZ & FRAHM 2013

121. *Leucobryum wightii* MITT. (Dicranaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Nalknad Palace - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 327, 328]

122. *Leucoloma amoene-virens* MITT. (Dicranaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

Leucoloma renauldii BROTH. = *Leucoloma tenerum* MITT.

Leucoloma strictifolium DIXON = *Leucoloma tenerum* MITT.

123. *Leucoloma taylori* (SCHWÄGR.) MITT. (Dicranaceae)

Agumbe - RAGHAVAN & WADHWA 1968 (as *Leucoloma walkeri*) [Coll./herb. no. RAGHAVAN, R.S. 62402A,

14/05/1960]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - BROTHERUS 1899 (as

Leucoloma walkeri) [Coll./herb. no. WALKER, T.L. 294]; Sampkhand - DIXON 1921 (as *Leucoloma walkeri*)

[Coll./herb. no. SEDGWICK, L.J. 6443]; Shimoga - RAGHAVAN & WADHWA 1970 (as *Leucoloma walkeri*);

Someshwar - RAGHAVAN & WADHWA 1968 (as *Leucoloma walkeri*) [Coll./herb. no. RAGHAVAN, R.S. 62673, 15/05/1960]

124. *Leucoloma tenerum* MITT. (Dicranaceae)

Jog Falls - DIXON 1921 (as *Leucoloma renauldii*) [Coll./herb. no. SEDGWICK, L.J. 6468]; Karnataka - FRAHM,

SCHWARZ, MANJU 2013; Sampkhand - [Coll./herb. no. SEDGWICK, L.J. 965924 (BM), 10/1919] - DIXON 1921 (as

Leucoloma strictifolium) [Coll./herb. no. SEDGWICK, L.J. 6444, 10/1919]; Virajpet - BROTHERUS 1899 (as

Leucoloma renauldii) [Coll./herb. no. WALKER, T.L. 293]

Leucoloma walkeri BROTH. = *Leucoloma taylori* (SCHWÄGR.) MITT.

125. *Leucomium aneurodictyon* (MÜLL. HAL.) A. JAEGER (Leucomiaceae)

Dharwad - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 7279b]; Karnataka - FRAHM, SCHWARZ, MANJU 2013

126. *Macgregorella indica* (BROTH.) W.R. BUCK (Fabroniaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Pollebetta - BROTHERUS 1899 (as *Schwetschkea indica*)

[Coll./herb. no. WALKER, T.L. 231, 232]

127. *Macromitrium densum* MITT. (Orthotrichaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

128. *Macromitrium leptocarpum* BROTH. (Orthotrichaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 68]

[Coll./herb. no. WALKER, T.L. 1, 7, 69]; Shimoga - RAGHAVAN & WADHWA 1970; Someshwar - RAGHAVAN &

WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62681, 18/05/1960]; Virajpet - [Coll./herb. no. WALKER, T.L.

982483 (BM, Walker No. 132), 12/1897] - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 132]

129. *Macromitrium maxwellii* CARDOT & DIXON EX BROTH. (Orthotrichaceae)

Kanara Jungles - [Coll./herb. no. MAXWELL, R.M. 982505 (BM, Maxwell No. 16), 10/1908]

130. *Macromitrium moorcroftii* (HOOK. & GREV.) SCHWÄGR. (Orthotrichaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013 - MANJU, RAJESH,

MADHUSOODANAN 2009; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 46,51]

131. *Macromitrium nepalense* (HOOK. & GREV.) SCHWÄGR. (Orthotrichaceae)

Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 46, 51]; Murnad - BROTHERUS 1899 [Coll./herb. no.

WALKER, T.L. 80]

132. *Macromitrium nigricans* MITT. (Orthotrichaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013

133. *Macromitrium schmidii* MÜLL. HAL. (Orthotrichaceae)

Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/545, 20/01/1973]

134. *Macromitrium sulcatum* (HOOK.) BRID. (Orthotrichaceae)

Gonikopaul - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 253]; Hatur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 182]; Kabbinakad - SCHWARZ & FRAHM 2013; Kanara Jungles - DIXON 1909 [Coll./herb. no. MAXWELL, R.M. 16, 10/1908]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1974-1977; Mt. Tadiandamol - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 317, 325]; Ponnepet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 247]; Shimoga - RAGHAVAN & WADHWA 1970; Someshwar - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62680, 18/05/1960]; Virajpet Hill - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 115]

135. *Meesia uliginosa* HEDW. (Meesiaceae)

Agumbe - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62402B, 14/05/1960]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Shimoga - RAGHAVAN & WADHWA 1970

136. *Merceyopsis spathulifolia* DIXON & P. DE LA VARDE (Pottiaceae)

Kankanady - DIXON & POTIER DE LA VARDE 1927 [Coll./herb. no. FOREAU, G. 19, 17/11/1925]

137. *Mesonodon flavescens* (HOOK.) W.R. BUCK (Entodontaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1978-1980 (as *Campyloodontium flavescens*); Madikeri - BROTHERUS 1899 (as *Campyloodontium flavescens*) [Coll./herb. no. WALKER, T.L. 52]; Murnad - BROTHERUS 1899 (as *Campyloodontium flavescens*) [Coll./herb. no. WALKER, T.L. 94, 105]; Mysore - GANGULEE 1978-1980 (as *Campyloodontium flavescens*); South East Coorg - BROTHERUS 1899 (as *Campyloodontium flavescens*) [Coll./herb. no. WALKER, T.L. 255]; Virajpet - BROTHERUS 1899 (as *Campyloodontium flavescens*) [Coll./herb. no. WALKER, T.L. 126]

138. *Meteoriopsis reclinata* (MÜLL. HAL.) M. FLEISCH. (Meteoriaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1974-1977; Madikeri - BROTHERUS 1899 (as *Meteorium reclinatum*) [Coll./herb. no. WALKER, T.L. 3, 16, 20]; Madikeri, Mangalore Road - BROTHERUS 1899 (as *Meteorium reclinatum*) [Coll./herb. no. WALKER, T.L. 71]; Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/544, 20/01/1973]; Virajpet - BROTHERUS 1899 (as *Meteorium reclinatum*) [Coll./herb. no. WALKER, T.L. 167]

139. *Meteoriopsis squarrosa* (HOOK. EX HARV.) M. FLEISCH. (Meteoriaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013 - MANJU, RAJESH, MADHUSOODANAN 2009; Kodagu (Coorg) - GANGULEE 1974-1977; Shimoga - RAGHAVAN & WADHWA 1970; Someshwar - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62678A, 18/05/1960]; Virajpet - BROTHERUS 1899 (as *Meteorium squarrosum*) [Coll./herb. no. WALKER, T.L. 119]

140. *Meteoriopsis squarrosa* var. *longicuspis* NOG. (Meteoriaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kudremukh - NOGUCHI 1976 [Coll./herb. no. PFLEIDERER, I. Bryotheca Levier 5778]

Meteorium enerve THWAITES & MITT. = *Barbellopsis trichophora* (MONT.) W.R. BUCK

Meteorium filamentosum (HOOK.) MITT. = *Aerobryidium filamentosum* (HOOK.) M. FLEISCH.

Meteorium reclinatum (MÜLL. HAL.) MITT. = *Meteoriopsis reclinata* (MÜLL. HAL.) M. FLEISCH.

Meteorium squarrosum (HOOK. EX HARV.) MITT. = *Meteoriopsis squarrosa* (HOOK. EX HARV.) M. FLEISCH.

Meteorium tumidum (DICKS. EX HOOK.) MITT. = *Calyptothecium urvilleanum* (MÜLL. HAL.) BROTH.

141. *Microcampylopus khasianus* (GRIFFITHS) GIESE & J.-P. FRAHM (Dicranaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 (as *Campylopodium khasianum*) [Coll./herb. no. WALKER, T.L. 30]

142. *Microcampylopus laevigatus* (THÉR.) GIESE & J.-P. FRAHM (Dicranaceae)

Karnataka - GIESE & FRAHM 1985a [Coll./herb. no. PFLEIDERER, I. 6831, 6452 (H-BR, JE)]; Madikeri - GIESE & FRAHM 1985a [Coll./herb. no. WALKER, T.L. 30 (H-BR, NY)]

143. *Microdus brasiliensis* (DUBY) THÉR. (Dicranaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

Neckera andamana (MÜLL. HAL.) A. JAEGER = *Neckeropsis andamana* (MÜLL. HAL.) M. FLEISCH.

Neckera rugulosa MITT. = *Himantocladium cyclophyllum* (MÜLL. HAL.) M. FLEISCH.

144. *Neckeropsis andamana* (MÜLL. HAL.) M. FLEISCH. (Neckeraceae)

Kanara Jungles - SEDGWICK 1910 (as *Neckera andamana*); Karnataka - FRAHM, SCHWARZ, MANJU 2013; Karwar - DIXON 1912; Sidapur - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6484]

145. *Neodictydia pendula* (SULL.) W.R. BUCK (Meteoriaceae)

Kabbinakad - SCHWARZ & FRAHM 2013 (as *Barbella pendula*)

146. *Octoblepharum albidum* HEDW. (Octoblepharaceae)

Hulical - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 90442, 16/10/1964]; Kabbinakad - SCHWARZ & FRAHM 2013; Kankanady - [Coll./herb. no. PFLEIDERER, I. 726961 (BM, Pflleiderer No. 21), 18/11/1925]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Shimoga - RAGHAVAN & WADHWA 1970; Udupi - [Coll./herb. no. PFLEIDERER, I. 726967 (BM), 02/1915]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 139]

147. *Orthomnion bryoides* (GRIFF.) NORK. (Mniaceae)

Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/540, 20/01/1973]

148. *Oxyrrhynchium vagans* (A. JAEGER) IGNATOV & HUTTUNEN (Brachytheciaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1978-1980 (as *Rhynchostegium vagans*); Virajpet - BROTHERUS 1899 (as *Hypnum vagans*) [Coll./herb. no. WALKER, T.L. 287] [Coll./herb. no. WALKER, T.L. 163]

Oxystegus tenuirostris (HOOK. & TAYLOR) A.J.E. SM. = *Trichostomum tenuirostre* (HOOK. & TAYLOR) LINDB.

Papillaria fuscescens (HOOK.) A. JAEGER = *Cryptopapillaria fuscescens* (HOOK.) M. MENZEL

149. *Pelekium velatum* MITT. (Thuidiaceae)

Guddahalli Hill - DIXON 1921 (as *Thuidium trachypodum*) [Coll./herb. no. SEDGWICK, L.J. 6400]; Hulical - RAGHAVAN & WADHWA 1968 (as *Thuidium trachypodum*) [Coll./herb. no. RAGHAVAN, R.S. 86240B, 14/02/1963]; Jog Falls - DIXON 1921 (as *Thuidium trachypodum*) [Coll./herb. no. SEDGWICK, L.J. 6470]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Pollebetta - BROTHERUS 1899 (as *Thuidium trachypodum*) [Coll./herb. no. WALKER, T.L. 227, 236]; Shimoga - RAGHAVAN & WADHWA 1970 (as *Thuidium trachypodum*); South Coorg - BROTHERUS 1899 (as *Thuidium trachypodum*) [Coll./herb. no. WALKER, T.L. 207]

150. *Philonotis angusta* MITT. (Bartramiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 56]

151. *Philonotis hastata* (DUBY) WIJK & MARGAD. (Bartramiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Murnad - BROTHERUS 1899 (as *Philonotis imbricatula*) [Coll./herb. no. WALKER, T.L. 87, 101, 102]; Paluru - BROTHERUS 1899 (as *Philonotis heterophylla*) [Coll./herb. no. WALKER, T.L. 53]; Sidapur - BROTHERUS 1899 (as *Philonotis imbricatula*) [Coll./herb. no. WALKER, T.L. 262, 269]; Virajpet - BROTHERUS 1899 (as *Philonotis heterophylla*) [Coll./herb. no. WALKER, T.L. 142, 168] [Coll./herb. no. WALKER, T.L. 117, 158]

Philonotis heterophylla MITT. = *Philonotis hastata* (DUBY) WIJK & MARGAD.

Philonotis imbricatula MITT. = *Philonotis hastata* (DUBY) WIJK & MARGAD.

152. *Philonotis mollis* (DOZY & MOLK.) MITT. (Bartramiaceae)

Gonikopaul - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 204]; Kabbinakad - SCHWARZ & FRAHM 2013; Kanara - GANGULEE 1969-1972; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1969-1972; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 26, 279] [Coll./herb. no. WALKER, T.L. 12]; Malamane - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6473]; Murnad - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 104]; Sampkhand - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6435]; Siddapur - DIXON 1921; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 143]

153. *Philonotis secunda* (DOZY & MOLK.) BOSCH & SANDE LAC. (Bartramiaceae)

Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/519, 20/01/1973] [Coll./herb. no. TOWNSEND, C.C. 73/532, 20/01/1973]

154. *Philonotis thwaitesii* MITT. (Bartramiaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

155. *Physcomitrium coorgense* BROTH. (Funariaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1969-1972; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 170]

156. *Pinnatella alopecuroides* (MITT.) M. FLEISCH. (Neckeraceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1974-1977; Pollebetta - BROTHERUS 1899 (as *Porotrichum alopecuroides*) [Coll./herb. no. WALKER, T.L. 221]

Pinnatella alopecuroides var. *calcutensis* (M. FLEISCH.) GANGULEE = *Pinnatella calcutensis* M. FLEISCH.

157. *Pinnatella calcutensis* M. FLEISCH. (Neckeraceae)

Kanara - GANGULEE 1974-1977 (as *Pinnatella alopecuroides* var. *calcutensis*); Karnataka - FRAHM, SCHWARZ, MANJU 2013 - MANJU, RAJESH, MADHUSOODANAN 2009; Kodagu (Coorg) - DIXON 1921

Pinnatella kurzii (KINDB.) WIJK & MARGAD. = *Curviciadium kurzii* (KINDB.) ENROTH

158. *Pinnatella limbata* DIXON (Neckeraceae)

Agumbe - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62530A, 15/05/1960]; Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Sampkhand - [Coll./herb. no. SEDGWICK, L.J. 1108254 (BM), 10/1919] - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6437]; Shimoga - RAGHAVAN & WADHWA 1970

159. *Platygyriella densa* (HOOK.) W.R. BUCK (Hypnaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013

160. *Platygyriella kirtikarii* (CARDOT & DIXON) W.R. BUCK (Hypnaceae)

Castle Rock - DIXON 1914 (as *Bryosedgwickia kirtikarii*); Karnataka - FRAHM, SCHWARZ, MANJU 2013

161. *Platyhypnidium riparioides* (HEDW.) DIXON (Brachytheciaceae)

Agumbe - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62530B, 15/05/1960]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Shimoga - RAGHAVAN & WADHWA 1970

162. *Pogonatum aloides* (HEDW.) P. BEAUV. (Polytrichaceae)

Begar - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 83305A, 17/10/1962]; Shimoga - RAGHAVAN & WADHWA 1970

Pogonatum aloides fo. *neesii* (MÜLL. HAL.) GANGULEE = *Pogonatum neesii* (MÜLL. HAL.) DOZY

Pogonatum hexagonum MITT. = *Pogonatum patulum* (HARV.) MITT.

163. *Pogonatum microstomum* (R. BR. EX SCHWÄGR.) BRID. (Polytrichaceae)

Hulical - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 86240A, 14/02/1963]; Karnataka - FRAHM, SCHWARZ, MANJU 2013 - MANJU, RAJESH, MADHUSOODANAN 2009; Shimoga - RAGHAVAN & WADHWA 1970

164. *Pogonatum neesii* (MÜLL. HAL.) DOZY (Polytrichaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1969-1972 (as *Pogonatum aloides* fo. *neesii*); Madikeri - BROTHERUS 1899 (as *Polytrichum neesii*) [Coll./herb. no. WALKER, T.L. 15, 35]

165. *Pogonatum patulum* (HARV.) MITT. (Polytrichaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Kodagu (Coorg) - GANGULEE 1969-1972 (as *Pogonatum hexagonum*)

166. *Polytrichum hexagonum* (MITT.) MÜLL. HAL. (Polytrichaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 14, 21, 282]; Paluru - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 45, 49]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 161]

- Polytrichum neesii* MÜLL. HAL. = *Pogonatum neesii* (MÜLL. HAL.) DOZY
Porotrichum alopecuroides (MITT.) BESCH. = *Pinnatella alopecuroides* (MITT.) M. FLEISCH.
- 167. *Pseudotrachypus convolvens*** (MITT.) W.R. BUCK (Trachypodaceae)
 Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mysore - GANGULEE 1974-1977 (as *Barbella convolvens*)
- 168. *Pterobryopsis conchophylla*** (RENAULD & CARDOT) BROTH. (Pterobryaceae)
 Kabbinakad - SCHWARZ & FRAHM 2013
- 169. *Pterobryopsis flexipes*** (MITT.) M. FLEISCH. (Pterobryaceae)
 Kabbinakad - SCHWARZ & FRAHM 2013
- 170. *Pterobryopsis foulkesiana*** (MITT.) M. FLEISCH. (Pterobryaceae)
 Karnataka - FRAHM, SCHWARZ, MANJU 2013
- 171. *Pterobryopsis frondosa*** (MITT.) M. FLEISCH. (Pterobryaceae)
 Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mt. Tadiandamol - BROTHERUS 1899 (as *Pterobryum frondosum*) [Coll./herb. no. WALKER, T.L. 307]
- 172. *Pterobryopsis gedehensis*** M. FLEISCH. (Pterobryaceae)
 Kabbinakad - SCHWARZ & FRAHM 2013
- 173. *Pterobryopsis gracilis*** (BROTH.) BROTH. (Pterobryaceae)
 Murnad - BROTHERUS 1899 (as *Pterobryum gracile*) [Coll./herb. no. WALKER, T.L. 84]; Pollebetta -
 BROTHERUS 1899 (as *Pterobryum gracile*) [Coll./herb. no. WALKER, T.L. 217]; Virajpet Hill - BROTHERUS
 1899 (as *Pterobryum gracile*) [Coll./herb. no. WALKER, T.L. 113]
- Pterobryopsis kanarensis* CARDOT & DIXON = *Pterobryopsis walkeri* (BROTH.) BROTH.
- 174. *Pterobryopsis kegeliana*** (MÜLL. HAL.) M. FLEISCH. (Pterobryaceae)
 Kanara Jungles - [Coll./herb. no. MAXWELL, R.M. 987229 (BM), 10/1908]; Karnataka - FRAHM, SCHWARZ,
 MANJU 2013
- Pterobryopsis maxwellii* CARDOT & DIXON = *Pterobryopsis tumida* (DICKS. EX HOOK.) DIXON
- 175. *Pterobryopsis orientalis*** (MÜLL. HAL.) M. FLEISCH. (Pterobryaceae)
 Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/543, 73/549, 20/01/1973]; Virajpet Hill -
 [Coll./herb. no. WALKER, T.L. 987231 (BM, Walker No. 113), 12/1897]
- 176. *Pterobryopsis schmidii*** (MÜLL. HAL.) M. FLEISCH. (Pterobryaceae)
 Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 (as *Pterobryum schmidii*)
 [Coll./herb. no. WALKER, T.L. 4, 8] [Coll./herb. no. WALKER, T.L. 22]; Mt. Tadiandamol - BROTHERUS 1899 (as
Pterobryum schmidii) [Coll./herb. no. WALKER, T.L. 303]; Nandi Hills - TOWNSEND 1988 [Coll./herb. no.
 TOWNSEND, C.C. 73/541, 20/01/1973]; Virajpet - BROTHERUS 1899 (as *Pterobryum schmidii*) [Coll./herb. no.
 WALKER, T.L. 123]
- 177. *Pterobryopsis tumida*** (DICKS. EX HOOK.) DIXON (Pterobryaceae)
 Anmod - DIXON 1921 (as *Pterobryopsis maxwellii*) [Coll./herb. no. SEDGWICK, L.J. 3310, 3311, 5376]; Castle
 Rock - DIXON 1921 (as *Pterobryopsis maxwellii*) [Coll./herb. no. SEDGWICK, L.J. 5516, 5518, 5519];
 Guddahalli Hill - DIXON 1921 (as *Pterobryopsis maxwellii*) [Coll./herb. no. SEDGWICK, L.J. 6388]; Jog Falls -

DIXON 1921 (as *Pterobryopsis maxwellii*) [Coll./herb. no. SEDGWICK, L.J. 6466]; Kabbinakad - SCHWARZ & FRAHM 2013; Kanara Jungles - DIXON 1909 (as *Pterobryopsis maxwellii*) [Coll./herb. no. MAXWELL, R.M. 3, 14, 02/1908] - SEDGWICK 1910 (as *Pterobryopsis maxwellii*); Karnataka - FRAHM, SCHWARZ, MANJU 2013; Sampkhand - DIXON 1921 (as *Pterobryopsis maxwellii*) [Coll./herb. no. SEDGWICK, L.J. 6433, 6434]

178. *Pterobryopsis walkeri* (BROTH.) BROTH. (Pterobryaceae)

Castle Rock - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 5521]; Guddahalli Hill - DIXON 1921; Hatur - BROTHERUS 1899 (as *Pterobryum walkeri*) [Coll./herb. no. WALKER, T.L. 150]; Kanara Jungles - DIXON 1909 (as *Pterobryopsis kanarensis*) [Coll./herb. no. MAXWELL, R.M. 15, 10/1908] - SEDGWICK 1910; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Karwar - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6387]; Madikeri - BROTHERUS 1899 (as *Pterobryum walkeri*) [Coll./herb. no. WALKER, T.L. 79] [Coll./herb. no. WALKER, T.L. 74]; Madikeri, Mangalore Road - BROTHERUS 1899 (as *Pterobryum walkeri*) [Coll./herb. no. WALKER, T.L. 75]

Pterobryum frondosum (MITT.) BROTH. = *Pterobryopsis frondosa* (MITT.) M. FLEISCH.

Pterobryum gracile BROTH. = *Pterobryopsis gracilis* (BROTH.) BROTH.

Pterobryum involutum (THWAITES & MITT.) BROTH. = *Symphysodontella involuta* (THWAITES & MITT.) M. FLEISCH.

Pterobryum patulum BROTH. = *Calyptothecium wightii* (MITT.) M. FLEISCH.

Pterobryum schmidii (MÜLL. HAL.) BROTH. = *Pterobryopsis schmidii* (MÜLL. HAL.) M. FLEISCH.

Pterobryum walkeri BROTH. = *Pterobryopsis walkeri* (BROTH.) BROTH.

179. *Racopilum cuspidigerum* (SCHWÄGR.) ÅNGSTRÖM (Racopilaceae)

Gonikopaul - BROTHERUS 1899 (as *Racopilum indicum*) [Coll./herb. no. WALKER, T.L. 249] [Coll./herb. no. WALKER, T.L. 252]; Hatur - BROTHERUS 1899 (as *Racopilum indicum*) [Coll./herb. no. WALKER, T.L. 192]; Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013

Racopilum indicum MITT. = *Racopilum cuspidigerum* (SCHWÄGR.) ÅNGSTRÖM

180. *Racopilum schmidii* (MÜLL. HAL.) MITT. (Racopilaceae)

Agumbe - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62402, 14/05/1960]; Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/518, 20/01/1973]; Shimoga - RAGHAVAN & WADHWA 1970

Rhaphidostegium tristiculum (MITT.) A. JAEGER = *Sematophyllum tristiculum* (MITT.) M. FLEISCH.

181. *Rhodobryum giganteum* (SCHWÄGR.) PARIS (Bryaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mt. Tadiandamol - BROTHERUS 1899 (as *Bryum giganteum*) [Coll./herb. no. WALKER, T.L. 311] - SCHWARZ & FRAHM 2013

182. *Rhynchostegium brachythecioides* DIXON & P. DE LA VARDE (Brachytheciaceae)

Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/527, 20/01/1973]

183. *Rhynchostegium herbaceum* (MITT.) A. JAEGER (Brachytheciaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1978-1980; Murnad - BROTHERUS 1899 (as *Hypnum herbaceum*) [Coll./herb. no. WALKER, T.L. 95]

Rhynchostegium vagans A. JAEGER = *Oxyrrhynchium vagans* (A. JAEGER) IGNATOV & HUTTUNEN

Rosulabryum tuberosum (MOHAMED & DAMANHURI) J.R. SPENCE = *Bryum tuberosum* MOHAMED & DAMANHURI

184. *Schoenobryum concavifolium* (GRIFF.) GANGULEE (Cryphaeaceae)

Biligiriranga Hills - [Coll./herb. no. SCHWARZ, U. 10867, 31/12/2012]; Hatur - BROTHERUS 1899 (as *Acrocryphaea concavifolia*) [Coll./herb. no. WALKER, T.L. 174]; Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Murnad - BROTHERUS 1899 (as *Acrocryphaea concavifolia*) [Coll./herb. no. WALKER, T.L. 82]; South Coorg - BROTHERUS 1899 (as *Acrocryphaea concavifolia*) [Coll./herb. no. WALKER, T.L. 209]; Virajpet - BROTHERUS 1899 (as *Acrocryphaea concavifolia*)

Schwetschkea indica BROTH. = *Macgregorella indica* (BROTH.) W.R. BUCK

185. *Sematophyllum angusticuspis* BROTH. (Sematophyllaceae)

Gonikopaul - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 260]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mt. Tadiandamol - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 319]; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 136, 160]

186. *Sematophyllum tristiculum* (MITT.) M. FLEISCH. (Sematophyllaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013 (as *Rhaphidostegium tristiculum*); Madikeri - BROTHERUS 1899 (as *Rhaphidostegium tristiculum*) [Coll./herb. no. WALKER, T.L. 61]; Ponnappet - BROTHERUS 1899 (as *Rhaphidostegium tristiculum*) [Coll./herb. no. WALKER, T.L. 244]; Sidapur - BROTHERUS 1899 (as *Rhaphidostegium tristiculum*) [Coll./herb. no. WALKER, T.L. 261]; Virajpet - BROTHERUS 1899 (as *Rhaphidostegium tristiculum*) [Coll./herb. no. WALKER, T.L. 129, 166]

Semibarbula orientalis (F. WEBER) WIJK & MARGAD. = *Hydrogonium orientale* (F. WEBER) KUCERA

Stereophyllum anceps (BOSCH & SANDE LAC.) BROTH. = *Entodontopsis anceps* (BOSCH & SANDE LAC.) W.R. BUCK & R.R. IRELAND

Stereophyllum ligulatum A. JAEGER = *Entodontopsis nitens* (MITT.) W.R. BUCK & R.R. IRELAND

Stereophyllum wightii (MITT.) A. JAEGER = *Entodontopsis wightii* (MITT.) W.R. BUCK & R.R. IRELAND

187. *Symphyodon perrottetii* fo. *myuroclada* DIXON (Daltoniaceae)

Anmod - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 3263]; Sampkhand - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6442]

188. *Symphyodon perrottetii* MONT. (Daltoniaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013

189. *Symphysodontella involuta* (THWAITES & MITT.) M. FLEISCH. (Pterobryaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mt. Tadiandamol - BROTHERUS 1899 (as *Pterobryum involutum*) [Coll./herb. no. WALKER, T.L. 305, 313]

190. *Symphysodontella tortifolia* DIXON (Pterobryaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

191. *Syntrichia fragilis* (TAYLOR) OCHYRA (Pottiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - AZIZ & VOHRA 2008

192. *Syrhodon semiliber* (MITT.) BESCH. (Calymperaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Siddapur - [Coll./herb. no. SEDGWICK, L.J. 664950 (BM, Sedgwick No. 6490), 10/1919] [Coll./herb. no. SEDGWICK, L.J. 664950 (BM), 10/1919] - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6440]

193. *Taxiphyllum taxirameum* (MITT.) M. FLEISCH. (Hypnaceae)

Hatur - BROTHERUS 1899 (as *Isopterygium taxirameum*) [Coll./herb. no. WALKER, T.L. 180]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - GANGULEE 1978-1980; Nalknad Palace - BROTHERUS 1899 (as *Isopterygium taxirameum*) [Coll./herb. no. WALKER, T.L. 320]; Pollebetta - BROTHERUS 1899 (as *Isopterygium taxirameum*) [Coll./herb. no. WALKER, T.L. 230]; Virajpet - BROTHERUS 1899 (as *Isopterygium taxirameum*) [Coll./herb. no. WALKER, T.L. 172] [Coll./herb. no. WALKER, T.L. 164]

194. *Taxithelium nepalense* (SCHWÄGR.) BROTH. (Sematophyllaceae)

Anmod - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 3264]; Guddahalli Hill - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6402]; Kanara - GANGULEE 1978-1980; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Karwar - GANGULEE 1978-1980; Sampkhand - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6451]

195. *Tayloria schmidii* (MÜLL. HAL.) BROTH. (Splachnaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Pollebetta - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 228]

196. *Thamniopsis utacamundiana* (MONT.) W.R. BUCK (Pilotrichaceae)

Mt. Tadiandamol - SCHWARZ & FRAHM 2013

197. *Thuidium blepharophyllum* (MÜLL. HAL.) A. JAEGER (Thuidiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mt. Tadiandamol - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 312] [Coll./herb. no. WALKER, T.L. 315, 316]

198. *Thuidium cymbifolium* (DOZY & MOLK.) DOZY & MOLK. (Thuidiaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

199. *Thuidium glaucinum* (MITT.) BOSCH & SANDE LAC. (Thuidiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Virajpet - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 120]

200. *Thuidium meyenianum* (HAMPE) DOZY & MOLK. (Thuidiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Karwar - GANGULEE 1978-1980; Kodagu (Coorg) - GANGULEE 1978-1980

201. *Thuidium orientale* MITT. EX DIXON (Thuidiaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

Thuidium tamariscellum (MÜLL. HAL.) BOSCH & SANDE LAC. = *Cyrto-hypnum tamariscellum* (MÜLL. HAL.)

W.R. BUCK & H.A. CRUM

Thuidium trachypodium (MITT.) BOSCH & SANDE LAC. = *Pelekium velatum* MITT.

Tortella ceylonensis M. FLEISCH. EX DIXON = *Tortula humilis* (HEDW.) TURNER

Tortella hyalinoblata BROTH. = *Trichostomum hyalinoblastum* (BROTH.) BROTH.

202. *Tortella walkeri* (BROTH.) R.H. ZANDER (Pottiaceae)

Hatur - BROTHERUS 1899 (as *Hyophila walkeri*) [Coll./herb. no. WALKER, T.L. 173]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Karwar - DIXON 1921 (as *Hyophila walkeri*) [Coll./herb. no. SEDGWICK, L.J. 6366]; Ponnepet - BROTHERUS 1899 (as *Hyophila walkeri*) [Coll./herb. no. WALKER, T.L. 240]; Virajpet - BROTHERUS 1899 (as *Hyophila walkeri*) [Coll./herb. no. WALKER, T.L. 134]

203. *Tortula humilis* (HEDW.) TURNER (Pottiaceae)

Nandi Hills - TOWNSEND 1988 (as *Tortella ceylonensis*) [Coll./herb. no. TOWNSEND, C.C. 73/535, 20/01/1973] [Coll./herb. no. TOWNSEND, C.C. 73/546, 20/01/1973] [Coll./herb. no. TOWNSEND, C.C. 73/522, 20/01/1973]

204. *Trachyphyllum inflexum* (HARV.) A. GEPP (Pterigynandraceae)

Biligiriranga Hills - [Coll./herb. no. SCHWARZ, U. 10869, 31/12/2012]

205. *Trachypodopsis serrulata* (P. BEAUV.) M. FLEISCH. (Trachypodaceae)

Kabbinakad - SCHWARZ & FRAHM 2013

206. *Trachypodopsis serrulata* var. *crispatula* (HOOK.) ZANTEN (Trachypodaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mt. Tadiandamol - BROTHERUS 1899 (as *Trachypus crispatus*) [Coll./herb. no. WALKER, T.L. 306]

Trachypus blandus (HARV.) MITT. = *Diaphanodon blandus* (HARV.) RENAULD & CARDOT

Trachypus crispatus (HOOK.) MITT. = *Trachypodopsis serrulata* var. *crispatula* (HOOK.) ZANTEN

Trematodon ceylonensis MÜLL. HAL. = *Trematodon longicollis* MICHX.

207. *Trematodon longicollis* MICHX. (Bruchiaceae)

Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 (as *Trematodon paucifolius*) [Coll./herb. no. WALKER, T.L. 28] [Coll./herb. no. WALKER, T.L. 24] [Coll./herb. no. WALKER, T.L. 17]; Sidapur - BROTHERUS 1899 (as *Trematodon paucifolius*) [Coll./herb. no. WALKER, T.L. 268]; Virajpet - BROTHERUS 1899 (as *Trematodon paucifolius*) [Coll./herb. no. WALKER, T.L. 162]

Trematodon paucifolius MÜLL. HAL. = *Trematodon longicollis* MICHX.

208. *Trichosteleum monostictum* (THWAITES & MITT.) BROTH. (Sematophyllaceae)

Bhagamandala - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 335]; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Mt. Tadiandamol - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 321] - SCHWARZ & FRAHM 2013; Sampkhand - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 6441]; South Coorg - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 146]

209. *Trichostomum brachydontium* BRUCH (Pottiaceae)

Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/521, 20/01/1973] [Coll./herb. no. TOWNSEND, C.C. 73/536, 20/01/1973] [Coll./herb. no. TOWNSEND, C.C. 73/537, 20/01/1973]

210. *Trichostomum duriusculum* (MITT.) BROTH. (Pottiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Shimoga - RAGHAVAN & WADHWA 1970; Someshwar - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62679, 18/05/1960]

211. *Trichostomum hyalinoblastum* (BROTH.) BROTH. (Pottiaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Kodagu (Coorg) - BROTHERUS 1899 (as *Tortella hyalinoblasta*) [Coll./herb. no. WALKER, T.L. 205]; Pollebetta - BROTHERUS 1899 (as *Tortella hyalinoblasta*) [Coll./herb. no. WALKER, T.L. 219]; Ponnepet - [Coll./herb. no. WALKER, T.L. 1006321 (BM, Maxwell No. 239), 01/1898] - BROTHERUS 1899 (as *Tortella hyalinoblasta*) [Coll./herb. no. WALKER, T.L. 239]

212. *Trichostomum tenuirostre* (HOOK. & TAYLOR) LINDB. (Pottiaceae)

Kabbinakad - SCHWARZ & FRAHM 2013 (as *Oxystegus tenuirostris*)

213. *Vesicularia levieri* CARDOT EX DIXON (Hypnaceae)

Dharwad - DIXON 1921 [Coll./herb. no. SEDGWICK, L.J. 7279]; Karnataka - FRAHM, SCHWARZ, MANJU 2013

214. *Vesicularia reticulata* (DOZY & MOLK.) BROTH. (Hypnaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Nager River - BROTHERUS 1899 (as *Ectropothecium reticulatum*) [Coll./herb. no. WALKER, T.L. 257]; Pollebetta - BROTHERUS 1899 (as *Ectropothecium reticulatum*) [Coll./herb. no. WALKER, T.L. 225]; Shimoga - RAGHAVAN & WADHWA 1970; Someshwar - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62764B, 20/05/1960]

215. *Vesicularia succosa* (MITT.) BROTH. (Hypnaceae)

Karnataka - FRAHM, SCHWARZ, MANJU 2013; Shimoga - RAGHAVAN & WADHWA 1970; Someshwar - RAGHAVAN & WADHWA 1968 [Coll./herb. no. RAGHAVAN, R.S. 62678B, 18/05/1960]

216. *Weissia edentula* MITT. (Pottiaceae)

Hatur - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 196]; Kabbinakad - SCHWARZ & FRAHM 2013; Karnataka - FRAHM, SCHWARZ, MANJU 2013; Madikeri - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 9] [Coll./herb. no. WALKER, T.L. 62]; Murnad - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 103]; Nandi Hills - TOWNSEND 1988 [Coll./herb. no. TOWNSEND, C.C. 73/515, 20/01/1973]; South Coorg - BROTHERUS 1899 [Coll./herb. no. WALKER, T.L. 211]

7. Discussion

During the recent years checklists of the neighboring states of Kerala and Tamil Nadu (MANJU et al. 2008, DANIELS 2010) have been published providing now valuable data to judge the status of the bryoflora of Karnataka (Table 1).

Table 1: Number of Bryophyte families, genera and taxa per state

	Karnataka			Kerala			Tamil Nadu			3 States together		
	Fam	Gen	Taxa	Fam	Gen	Taxa	Fam	Gen	Taxa	Fam	Gen	Taxa
Hornworts	2	4	9	2	4	10	2	4	9	2	4	18
Liverworts	20	42	113	29	54	159	32	65	252	35	74	350
Mosses	35	97	216	41	140	302	50	192	472	52	235	682
Total	57	143	338	72	198	471	84	261	733	89	313	1050

In comparison with Kerala and Tamil Nadu it becomes obvious that Karnataka is a highly underexplored state. As indicated in chapter 2 the interest to execute bryological studies in the area was quite low. The exploration also just started about 70 years later than in Tamil Nadu, where B. SCHMID collected in the Nilgiri Hills in the 1830s (MÜLLER 1853).

From a biogeographical perspective the 3 states are very much alike. The share – at least in parts – similar climatic, geomorphological and floristic conditions. Even though the highest peaks in Kerala and Tamil Nadu reach an elevation of 2,695 and 2637 meters respectively, Karnataka is still holding a fair degree of montane flora.

It would be highly advisable to bring the state of Karnataka, in particular its mountainous regions, into the focus of bryological research which will not just lead to a better understanding of the bryoflora of southern India but will for sure also disclose additional bryological treasures.

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9. Bibliography

- AHMAD, S. (1942): Three new species of *Riccia* from India. *Current science* 11:433-434.
- ALAM, A. (2012): Liverworts Flora of Parson's valley, Nilgiri hills (Western Ghats), South India. *Archive of Bryology* 119:1-19.
- ASTHANA, A.K.; SRIVASTAVA, S.C. (1991): Indian Hornworts. *Bryophytorum Bibliotheca* 42:1-158.
- ASTHANA, G. (2001): Present Status of the genus *Cololejeunea* in India. Bishen Singh Mahendra Pal Singh. Dehra Dun.
- ASTHANA, G.; SHUKLA, A. (2010): A new epiphyllous species of *Cololejeunea* (Lejeuneaceae) from India. *Cryptogamie bryologie* 31:217-221.
- ASTHANA, G.; SRIVASTAVA, S.C. (2003): Indian *Cololejeunea*: A taxonomic study. *Bryophytorum Bibliotheca* 60:viii + 155 pages.
- ASTHANA, G.; SRIVASTAVA, S.C.; ASTHANA, A.K. (1995): The genus *Cheilolejeunea* in India. *Lindbergia* 20:125-145.
- AWASTHI, U.S.; SRIVASTAVA, S.C. (1988): Status of *Brachiolejeunea* (Spruce) Schiffn. in India. *Proceedings, Indian Academy of Sciences. Plant sciences* 98:1-12.
- AZIZ, M.N.; VOHRA, J.N. (2008): Pottiaceae (Musci) of India. Bishen Singh Mahendra Pal Singh. Dehra Dun.
- BAG, A.K.; SINGH, S.K.; BHATTACHARYA, S.G. (2007): *Riccia* of West Bengal. *Bulletin of the Botanical Survey of India* 49:173-186.
- BAPNA, K.R.; KACHROO, P. (2000a): Hepaticology in India I. Himanshu Publication. Udaipur.
- BAPNA, K.R.; KACHROO, P. (2000b): Hepaticology in India II. Himanshu Publication. Udaipur.
- BATH, V.C. (2009): Mosses of Western Ghats and coastal belt of Karnataka- A taxonomic study. Ph.D. Thesis. Mangalore University. Mangalore.
- BROTHERUS, V.F. (1899): Report on a collection of Mosses made by Dr. T.L. Walker in Coorg during the cold weather of 1897-98. *Records of the Botanical Survey of India* 1:311-329.
- DANIELS, A.E.D. (2010): Checklist of the Bryophytes of Tamil Nadu. *Archive of Bryology* 65:1-117.
- DIXON, H.N. (1909): Mosses from the Western Ghats. *Journal of Botany. British and Foreign* 47:157-164.
- DIXON, H.N. (1911): *Hyophilopsis*, a new genus of Pottiaceae with further contributions to the bryology of India. *Journal of Botany. British and Foreign* 49:137-150.
- DIXON, H.N. (1912): *Bryosedgwickia*, novum genus Entodontacearum, with further contributions to the bryology of India. *Journal of Botany. British and Foreign* 50:145-156.

- DIXON, H.N. (1914): Report on the Mosses of the Abor Expedition 1911-12, and report collected by Mr. C.E.C. Fischer and others from South India and Ceylon. *Records of the Botanical Survey of India* 6:75-89.
- DIXON, H.N. (1921): On a collection of Mosses from the Kanara District. *Indian Journal of Botany* 2:174-188.
- DIXON, H.N.; POTIER DE LA VARDE, R. (1927): Contribution à la flore bryologique de l'Inde méridionale. *Archives de Botanique, Bulletin Mensuel* 1:161-184.
- ELLIS, L.T. (1989): A taxonomic revision of *Calymperes* in southern India and neighbouring islands. *Journal of Bryology* 15:697-732.
- FOREAU, G. (1930): Notes on bryological geography for the Presidency of Madras. *Journal of Madras University* 2:238-250.
- FOREAU, G. (1931): Notes on bryological geography for the Presidency of Madras. *Journal of Madras University* 3:118-126.
- FOREAU, G. (1961): The moss flora of the Palni Hills. *Journal of the Bombay Natural History Society* 58: 12-47.
- FOREAU, G. (1964): Miscellaneous Notes: Some South Indian Mosses. *Journal of the Bombay Natural History Society* 61:223-226.
- FRAHM, J.-P.; SCHWARZ, U.; MANJU, C.N. (2013): A checklist of the Mosses of Karnataka, India. *Archive of Bryology* 153:1-15.
- GANGULEE, H.C. (1969-1972): Mosses of Eastern India and adjacent regions. A Monograph. Volume 1. New Central Book Agency. London.
- GANGULEE, H.C. (1974-1977): Mosses of Eastern India and adjacent regions. A Monograph. Volume 2. New Central Book Agency. London.
- GANGULEE, H.C. (1978-1980): Mosses of Eastern India and adjacent regions. A Monograph. Volume 3. New Central Book Agency. London.
- GIESE, M.; FRAHM, J.-P. (1985a): A revision of *Microcampylopus* (C. Hal.) Fleisch. *Lindbergia* 11:114-124.
- GIESE, M.; FRAHM, J.-P. (1985b): A revision of *Campylopodium* (C. Müll.) Besch. *Lindbergia* 11:125-133.
- GRADSTEIN, S.R.; FRAHM, J.-P.; SCHWARZ, U.; LAENEN, B.; VANDERPOORTEN, A. (2013): On the taxonomic status of the enigmatic Phycolepidoziaceae (Marchantiophyta: Jungermanniales) with description of a new species, *Phycolepidozia indica*. *Taxon* (in press)
- GROLLE, R. (1960): Über *Saccogyna* Dum. und *Saccogynidium*, eine neue Lebermoosgattung. *Journal of the Hattori Botanical Laboratory* 23:41-67.
- MANJU, C.N.; RAJESH, K.P.; MADHUSOODANAN, P.V. (2004): *Bryum tuberosum* Mohamed & Damanhuri, A new record for India. *Indian Journal of Forestry* 27:39-40.
- MANJU, C.N.; RAJESH, K.P.; MADHUSOODANAN, P.V. (2008): Checklist of Bryophytes of Kerala, India. *Tropical Bryology Research Reports* 7:1-26.
- MANJU, C.N.; RAJESH, K.P.; MADHUSOODANAN, P.V. (2009): Contribution to the Bryophyte flora of India: Agasthyamalai Biosphere Reserve in Western Ghats. *Taiwania* 54 (1):57-68.
- MIZUTANI, M. (1964): Studies of little known Asiatic species of Hepaticae in the Stephani Herbarium. I. On some little known southeast Asiatic species of the family Lejeuneaceae. *Journal of the Hattori Botanical Laboratory* 27:139-148.
- MIZUTANI, M. (1967): Studies on the Himalayan species of *Bazzania*. *Journal of the Hattori Botanical Laboratory* 30:71-901.
- MOHAMED, M.A.H. (1979): A taxonomic study of *Bryum billardieri* Schwaegr. and related species. *Journal of Bryology* 10:401-465.
- MOHAMED, M.A.H. (1982): *Bryum wightii* Mitt. and related species. *Journal of Bryology* 12:23-29.
- MÜLLER, C. (1853): Musci Neilgherienses I. *Botanische Zeitung (Regensburg)* 11:17-21,33-40,57-62

- NATH, V.; ASTHANA, A.K. (1998): Diversity and distribution of genus *Frullania* Raddi in south India. *Journal of the Hattori Botanical Laboratory* 85:63–82.
- NOGUCHI, A. (1976): A taxonomic revision of the family Meteoriaceae of Asia. *Journal of the Hattori Botanical Laboratory* 41:231-357.
- PÓCS, T.; MANJU, C.N.; RAJESH, K.P.; MADHUSOODANAN, P.V. (2007): Liverwort (Marchantiopsida) records from the Western Ghats (Kerala State, Peninsular India). *Acta Botanica Hungarica* 49:121-129.
- RAGHAVAN, R.S.; WADHWA, B.M. (1968): Mosses of Agumbe-Hulical Ranges, Shimoga District. *Bulletin of the Botanical Survey of India* 10:344-347.
- RAGHAVAN, R.S.; WADHWA, B.M. (1970): Mosses of Agumbe (Shimoga District, Mysore State) II. Key to species and new records for India. *Maharashtra Vidnyan Mandir Patrika*. 5:28-35.
- RAWAT, K.K.; SRIVASTAVA, S.C. (2008): Genus *Plagiochila* in Eastern Himalaya. Bishen Singh Mahendra Pal Singh. Dehra Dun.
- SCHWARZ, U.; FRAHM, J.-P. (2013): A contribution to the bryoflora of the Western Ghats in Karnataka State, India. *Polish Botanical Journal* 58 (in press)
- SEDGWICK, L.J. (1910): A first list of Mosses from Western India. *Journal of the Bombay Natural History Society* 19:938-942.
- SEDGWICK, L.J. (1911): A second list of Mosses from Western India. *Journal of the Bombay Natural History Society* 20:1043-1045.
- SEDGWICK, L.J. (1913): A third list of Mosses from Western India. *Journal of the Bombay Natural History Society* 22:370-371.
- SHARMA, B.D.; SRIVASTAVA, S.C. (1993): Indian Lepidoziineae - A Taxonomic Revision. *Bryophytorum Bibliotheca* 47:i-xii, 1-353.
- SINGH, D.; DEY, M.; SINGH, D.K. (2010): A synoptic flora of Liverworts and Hornworts of Manipur. *Nelumbo. Bulletin of the Botanical Survey of India* 52:9-52.
- SINGH, D.; DEY, M.; UPADHYAY, G.K. (2010): A preliminary survey of Hepaticae of little Andaman Island. *Nelumbo. Bulletin of the Botanical Survey of India* 52:125-130.
- SINGH, S.K.; GOSH, J.P. (2007): Bryo-diversity in Indian botanic garden, Howrah, West Bengal. *Bulletin of the Botanical Survey of India* 49:155-164.
- SINGH, S.K.; SINGH, D.K. (2007): A preliminary census of Hepaticae and Anthocerotae of Doon Valley. *Bulletin of the Botanical Survey of India* 49:1-14.
- SRIVASTAVA, A.; SRIVASTAVA, S.C. (2002): Indian Geocalycaceae (Hepaticae) - A taxonomic study. Bishen Singh Mahendra Pal Singh. Dehra Dun.
- SRIVASTAVA, S.C.; AGARWAL, A. (1986): The genus *Rectolejeunea* in India. *Bryologist* 89:195-199.
- SRIVASTAVA, S.C.; SRIVASTAVA, A. (1989): The genus *Heteroscyphus* Schiffn. in the Western Himalayas. *Lindbergia* 15:195-202.
- SRIVASTAVA, S.C.; SRIVASTAVA, S. (2004): Two new Metzgerias from Peninsular India. *Phytotaxonomy* 4:79-86.
- SRIVASTAVA, S.C.; UDAR, R. (1975): Taxonomy of the Indian Metzgeriaceae - A monographic study. *New Botanist* 2:1-57.
- TOWNSEND, C.C. (1988): Mosses from the Nandi Hills, Mysore State, India. *Journal of Bryology* 15:289–291.
- UDAR, R.; AWASTHI, U.S. (1982): The genus *Schiffneriolejeunea* Verd. (Hepaticae) in India. *Lindbergia* 8:55-59.
- UDAR, R.; AWASTHI, U.S.; SHAHEEN, F. (1982): A new *Caudelejeunea* from India. *Bryologist* 85:329-331.
- UDAR, R.; KUMAR, A. (1981): Genus *Notoscyphus* Mitt. In India. *Journal of the Hattori Botanical Laboratory* 48:247-260.
- UDAR, R.; KUMAR, A. (1983): A new *Frullania* from India. *Miscellanea Bryologica et Lichenologica* 9:192-194.

- UDAR, R.; SINGH, D.K. (1979): *Notophylas pfliedereri* sp. nov. from Mangalore, India. *Lindbergia* 5:28-30.
- UDAR, R.; SRIVASTAVA, G. (1982): Two new species of *Cololejeuna* from peninsular India. *Journal of Bryology* 12:227-231.
- VERMA, P.K. (2009): Genus *Cololejeunea* (Spruce) Schiffn. In Nilgiri Hills (Western Ghats). *Nelumbo. Bulletin of the Botanical Survey of India* 51:157-160.
- VERMA, P.K.; SRIVASTAVA, S.C. (2011): Endemism in Liverworts of Western Ghats and their present status. *Archive of Bryology* 99:1-23.