

Studies on a few Pottiaceous mosses from Australia

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Abstract. *Tortula flavinervis* Dixon var. *parviretis* Sainsbury is *Barbula crinita* Schultz. The type of *Phasconia balansae* Müll. Hal. was not located, only a plate of the type material was seen. *Phasconia balansae* Müll. Hal. and *Astomum platystegium* Dixon are considered as identical. The occurrence of *Weissia brachycarpa* (Nees & Hornsch.) Jur. in Australia is doubtful. Comments on several nomina nuda are given. No material was located for *Hymenostomum pertortile* Müll. Hal. *nom. nud.* *Weissia latiuscula* Müll. Hal. is reported new for Australia.

Introduction

Over the last years I have identified many unnamed Pottiales sent, mainly as duplicates, from numerous herbaria. As part of this work, type materials of taxa described from Australia were studied. Nomina nuda were also investigated. They were often found to be identical with widespread species, which is a rather well known phenomenon in this group of mosses. All author citations in botanical names follow Brummitt and Powell (1992).

***Barbula crinita* Schultz**

- *Tortula flavinervis* Dixon var. *parviretis* Sainsbury, *Victorian Naturalist* 63: 222. 1947. *syn. nov.*

Type: Australia, Victoria, Castlemaine (N. of Melbourne), common, in open fields, no fruits, 1943, *F. Robbins no. 12-B*, *Hb Sainsbury no. 15.104* (holo!, WELT).

Notes.

1. The type collection agrees very well with the data given by Sainsbury (1947: 222).
2. After studying many Australian collections of *Barbula crinita*, I consider the type material of *Tortula flavinervis* var. *parviretis* a rather common form of this species.

A note on *Phasconia balansae* Müll. Hal. and *Astomum platystegium* Dixon

Type material of *Phasconia balansae* apparently is lost. I cannot locate it in these herbaria: BM, G, H, JE, S. I received a loan of this species from PC, but it was a non-type collection. The locality data from this non-type are as follows: Nouvelle Calédonie (associé à *Nan. (Nanomitrium) brisbanicum* (Broth.) Broth. et confondu avec lui..., fruiting, latera humide...,

17 Julio 1908, Leg. *Le Rat, hb. Potier de la Varde* (2167), det. R.P.V. (PC!).

In the herbarium of Potier de la Varde is also present a plate of the material cited above and a figure of parts of the original type material obtained from Hb. Berlin. Apparently Potier de la Varde had compared both specimens.

In this regard, the type material of *Astomum platystegium* Dixon was also studied. The information is as follows:

Astomum platystegium Dixon, Journ. Bot. British & Foreign 80: 5. 1942; *Weissia platystegia* (Dixon) A. Eddy, A Handbook of Malesian Mosses, Vol. 2: 164. 1990.

Type: Papua, Kanosia, open savannah land, under tall grasses, on soil..., fruiting, c. 50 ft., 28.2.1935, C.E. Carr (a), *Hb. Dixon* (holo!, BM).

The citation of the type material in Norris and Koponen (1989: 87) is not correct. The PC material (mentioned above) agrees well with the type collection of *Astomum platystegium* in BM. I agree with H. Ramsay (in litt., 1996, „almost certainly the same“) that *Phasconia balansae* and *Astomum platystegium* are identical. *Weissia balansae* (Müll. Hal.) R.H. Zander becomes the new correct name (Zander, 1993: 184).

A note on the material of *Weissia brachycarpa* (Nees & Hornsch.) Jur. from Australia

After identifying many Australian Pottiales specimens (c. 2000 numbers), I have not seen convincing material of this taxon. Of special note is the remark in Catcheside's flora (Catcheside 1980: 196): „it is uncertain whether the (Australian) plant is the same as the European one“. See also the text in Scott and Stone (1976: 208).

My experience has shown that the Australian material has a somewhat smaller orifice, becoming much wider mouthed when the operculum is carefully removed. I identified the Australian materials (finally) as *Weissia patula* (C. Knight) Fife. Therefore, *W. brachycarpa* is tentatively removed from the Australian bryoflora.

***Barbula pseudopilifera* Müll. Hal. & Hampe var. *scabrinervis* Broth. & Watts, Proc. Linn.**

Soc. New South Wales 37: 368. 1912. nom. nud. Material studied: N.S. Wales, Yarrangobilly Village, bank of the river, cliffs, c. 3800 ft., no fruits, 17 Jan 1906, W.W. Watts 8497, *Hb Brotherus* no. 02.66.014 (H!).

Notes.

1. The material agrees very well with the data in Brotherus and Watts (1912: 368).
2. This collection belongs to *Barbula subcalycina* Müll. Hal.

***Hymenostomum angustatum* Broth. ex Watts & Whitel., Proc. Linn. Soc. New South Wales Suppl. 27: 62. 1902. nom. nud.**

Material studied: N.S. Wales, Three Mile Scrub, Byron Bay, fruiting, Sept. 1897, W.W. Watts 1483, *Hb Brotherus* no. 20.73.002 (H!).

Notes.

1. This collection agrees very well with the data given by Watts and Whitelegge (1902: 62).
2. A few years ago, I (Sollman 2001: 75) treated this taxon as *Weissia condensa* (Voit) Lindb. This is, however, not correct. Recently, I restudied the collection above and found a fragile peristome.
3. The leaves of the plants are about plane when wet. The costa is clearly short excurrent. The capsule is wide mouthed. A fragile peristome is present. Some capsule shape variations were seen in the collection. Ripe spores are papillose, measuring 12-18 µm; this spore size is rather small for the species. The points have led me to the conclusion that the plants are *Weissia rutilans* (Hedw.) Lindb.
4. I agree with Streimann and Klazenga (2002: 100 and 192) that the occurrence of *Weissia condensa* in Australia is very doubtful. Other collections so called should be carefully checked for their identity.

***Hymenostomum inflexum* Hampe & Müll. Hal., Fragm. Phyt. Austral. Suppl. 11: 46. 1880 (1881). nom. nud.**

Material studied: Australia felix (Victoria), Gippsland, fruiting, 1855, Dr. F. Müller no. 79, *Hb Hampe* (BM!).

Notes.

1. All the material present in Herbarium Hampe (BM) was examined. These are about seven

collections mounted on a sheet. In Hampe (1881: 46), this name was found only in a list (no. 61) without any additional information.

2. Hampe apparently considered this taxon identical with *Gymnostomum inflexum* Taylor, judging from the notes on the BM sheet.

3. Nearly all the numbers studied are from Gippsland; one came from Parramatta (N.S. Wales).

4. All the collections are identical. The capsules are wide mouthed, no peristomes are present. A hymenium was seen. The leaves are mostly plane when wet, somewhat widely involute when dry. The mature brown spores measure 20–28 µm. All these points have led me to the conclusion that these plants belong to *Weissia patula* (C. Knight) Fife.

***Hymenostomum pertortile* Müll. Hal., Ind. Bryol. Suppl. 190. 1900. nom. nud.**

This taxon was not located in any of the following relevant herbaria: BM, BRI, H, PC. I have not seen any collection bearing this name.

***Weissia perlinearis* Müll. Hal. ex F.M. Bailey, Queensland Bot. Bull. 4: 21. 1891. nom. nud.**

Material studied: Australia, Queensland, Mt. Perry, fruiting, no date, *J. Keys 883, F.M. Bailey 226, AQ 71.68.71* (BRI!).

Notes.

1. This collection was carefully compared with the type material of *Hymenostomum eurybasis* Dixon. The data are as follows:

Hymenostomum eurybasis Dixon, in S. Afr. J. Sci. 18: 333. 1922.

Type: South Rhodesia... Matapos, 4700 ft., fruiting, Mar 1918, *Eyles 940, Hb. Dixon* (BM!).

2. *Hymenostomum eurybasis* is treated by Magill (1981: 267) as identical with *Weissia latiuscula*. Both cited collections (above) match very well.

3. The data of the material of *Weissia perlinearis* at Hb Brisbane fit very well with the publications of Bailey (1891: 21) and Watts and Whitelegge (1902: 64).

5. There is a collection of I.G. Stone (no. 21.092) with the following data: Queensland (near Monto), Cania gorge, Bloodwood caves, fruiting, 6.8.1983 (?), I.G. Stone 21.092 (MELU!). This collection was also compared with the type material of *Hymenostomum eurybasis* Dixon.

They match well. *Weissia latiuscula* Müll. Hal. is well described, illustrated and discussed in Magill (1981: 267).

6. Another collection bearing the name *Weissia perlinearis* Müll. Hal. nom. nud., was sent on loan from Hb Helsinki. The data of the specimen are as follows: „266. *Weissia perlinearis* Müll. Hal. nom. nud., det. C. Müller. Queensland, fruiting, comm. F.M. Bailey, *Hb Brotherus no. 44.21.009* (H!)“.

7. This collection does not fit the data for this taxon given in Bailey (1891: 21), nor the data in Watts and Whitelegge (1902: 64). The plants have longer, rather small capsules without peristomes. The leaves taper to a small, acute point. The leaves are strongly involute. The costa is clearly excurrent. Mature brown spores measure c. 20 µm. All these led me to the conclusion that this collection belongs, in fact, to *Weissia edentula* Mitt.

8. Conclusion: Australian specimens of *Weissia perlinearis* Müll. Hal. ex F.M. Bailey, nom. nud., are in fact either *Weissia latiuscula* Müll. Hal. or *Weissia edentula* Mitt.

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