



Corrections to *Phytotaxa* 19: Linear sequence of lycophytes and ferns

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After the publication of our *A linear sequence of extant families and genera of lycophytes and ferns* (Christenhusz, Zhang & Schneider 2011), a couple of errors were brought to our attention:

***Platyzoma* placed in *Pteris* (Pteridaceae), and correcting erroneous combinations made in *Pteris* of *Gleichenia* species.**

In the *New Combinations* section on page 22, we attempted to provide new combinations for the genus *Platyzoma* R.Br., which is embedded in *Pteris* L. (Schuettpelz & Pryer 2007, Lehtonen 2011). When doing so, we made the unfortunate choice to follow the treatment of *Platyzoma* by Desvaux (1827), which included several additional species of *Gleichenia*, instead of the modern treatment of *Platyzoma* in which only the species *Platyzoma microphyllum* Brown (1810: 160) is included. Only that name needed to be transferred. This resulted in the creation of a number of unnecessary new names and combinations of Australasian *Gleichenia*, for which we apologise. We erroneously provided names in *Pteris* for *Gleichenia dicarpa* R.Br., *G. alpina* R.Br. and *G. rupestris* R.Br., which are all correctly placed in *Gleichenia* and not in *Pteris*. Therefore these new names are to be treated as synonyms. *Gleichenia speluncae* R.Br. and its combination in *Pteris* are synonyms of *G. rupestris*.

To complicate matters, the combination '*Pteris microphylla*' is already published earlier [by Cavanilles (in Swartz 1806: 324, *nomen*), by Cunningham (1836: 366), and by Colla (1836)] and is therefore not available for this taxon. We chose *Platyzoma recurvum* Desv. to make the combination for this taxon, an unfortunate choice, because that name is synonymous to *Gleichenia microphyllum* R.Br., not *Platyzoma microphyllum* R.Br.

Unfortunately type specimens of *Platyzoma ferruginea* and *P. latum* could not be located, but based on their descriptions they appear both to be synonymous to *Dicranopteris linearis* (Burm.f.) Underwood (1907: 250). Of this species several varieties are known to occur in Australia and it is likely that these two names apply to different varieties, although it may not be certain to which one, due to the absence of original material to verify.

Below we provide an overview of the taxa that we incorrectly applied, and we formally synonymise our superfluous new names in *Pteris* that are underlined for convenience.

Correct names:

Dicranopteris linearis (Burm.f.) Underw.

Synonyms: *Platyzoma ferruginea* Desvaux (1827: 199), *syn. nov.*, *Pteris platyferra* Christenh., *syn. nov.* *Platyzoma latum* Desvaux (1827: 199), *syn. nov.*, *Pteris platylata* Christenh., *syn. nov.*

Gleichenia alpina R.Br.

Synonyms: *Calymella alpina* (R.Br.) C.Presl, *Gleichenia dicarpa* var. *alpina* (R.Br.) Hook.f., *Mertensia alpina* (R.Br.) Poir., *Platyzoma alpinum* (R.Br.) Desv., *Pteris platyzoma* Christenh., *syn. nov.*

***Gleichenia dicarpa* R.Br.**

Synonyms: *Calymella dicarpa* (R.Br.) C.Presl, *Mertensia dicarpa* (R.Br.) Poir., *Platyzoma dicarpum* (R.Br.) Desv., *Pteris dicarpa* (R.Br.) Christenh., *syn. nov.*, *Calymella major* Nakai

***Gleichenia microphylla* R.Br.**

Synonyms: *Calymella microphylla* (R.Br.) C.Presl, *Gleichenia circinnata* var. *microphylla* (R.Br.) Maiden & Betche, *Gleicheniastrum microphyllum* (R.Br.) C.Presl, *Platyzoma recurvum* Desv., *Pteris recurva* (Desv.) Christenh., *syn. nov.*

***Gleichenia rupestris* R.Br.**

Synonyms: *Calymella rupestris* (R.Br.) Ching, *Gleichenia circinnata* var. *rupestris* (R.Br.) Domin, *Gleicheniastrum rupestre* (R.Br.) C.Presl, *Mertensia rupestris* (R.Br.) Poir., *Platyzoma rupestris* (R.Br.) Desv., *Pteris rupestris* (R.Br.) Christenh., *syn. nov.*, *Gleichenia speluncae* R.Br., *Gleichenia circinnata* var. *speluncae* (R.Br.) Luerss., *Gleicheniastrum speluncae* (R.Br.) C.Presl, *Mertensia speluncae* (R.Br.) Poir., *Platyzoma speluncae* (R.Br.) Desv., *Pteris speluncae* (R.Br.) Christenh., *syn. nov.*

Pteris platyzomopsis* Christenh. & H.Schneid., *nom. nov.

Basionym: *Platyzoma microphyllum* Brown (1810: 160), *non P. microphylla* A.Cunn.

Placement of *Hemidictyum* in Hemidictyaceae, sister to Aspleniaceae

Recent analysis including the members of our newly described Diplaziopsidaceae made us conclude that this family should consist of *Diplaziopsis* C.Chr. and *Homalosorus* Small ex Pic.Serm. only. The third genus *Hemidictyum* C.Presl, was tentatively included in Diplaziopsidaceae, but has since been found to be sister to Aspleniaceae (Lehtonen 2011). It should therefore either be treated as an independent family [**Hemidictyaceae, *fam. nov.*, frondes herbaceae, compositae, pinnis oppositis lanceolatis serratis; fasciculus vasorum in stipite unicus; venae pinnatae, simplices; sori lineares, elongati, dorso venae simplicis; indusium lineare, elongatum, planum.** Type: *Hemidictyum* C.Presl (1836: 110)], or be included in Aspleniaceae (as suggested by Lehtonen 2011), although the latter is unwarranted because synapomorphies of such a broadly defined Aspleniaceae are not yet known. Moreover the separation of *Hemidictyum* and Aspleniaceae dates back to the Cretaceous according to current estimates of divergence times of derived ferns (Schuettpelz & Pryer 2009), and the recognition of two families will therefore be helpful for future classification of Cretaceous and early Tertiary ferns.

Grammitid ferns (Polypodiaceae)

The classification of grammitid ferns is still poorly understood and our treatment had several shortcomings. Barbara Parris, specialist on Old World grammitids notified us of the following errors:

- *Ctenopteris* Blume ex Kunze is a synonym of *Prosaptia* C.Presl (Parris 2007).
- *Nemopteris* Alderw. is a synonym of *Scleroglossum* Alderw. (Kramer & Green 1990)
- *Ctenopterella* Parris was omitted from the list of genera. It should have been recognised (following Parris 2007).
- Our typification of
- *Tomophyllum* (E.Fourn.) Parris was superfluous. It had already been lectotypified by Parris (2007) with *T. subsecundodissectum* (Zoll.) Parris. We overlooked this lectotypification.

The grammitids are without doubt one of the biggest challenges to curators, because the genus concepts have been changed dramatically in the recent years. Many non-expert curators will find the current situation unsatisfactory because a lot of material is currently filled under various generic names such as *Ctenopteris*, *Grammitis* Sw. and *Xiphopteris* Kaulf. These are now either recognized as synonyms of other genera, or have a much narrower definition. A full list of synonymy of the grammitid ferns will be necessary, after further research has established the generic delimitation in more detail.

A new name in *Blechnum* for *Doodia kunthiana* (Blechnaceae)

Also an unfortunate choice was the new name proposed in *Blechnum* for *Doodia kunthiana* Gaudichaud (1829: 410): *Blechnum norfolkense* Christenh. This name was unfortunate because the taxon is endemic to Hawaii instead of Norfolk Island. It was caused by a confusion of geographical names.

We therefore hereby propose the illegitimate name *Blechnum hawaiianum* Christenh., *nom. nov.* for this taxon (basionym: *Doodia kunthiana* Gaudichaud (1829: 410)). We realise that this name will have to be formally conserved against *B. norfolkense*, before it can be applied, but we are convinced this name will be more appropriate.

Matteuccia (Onocleaceae)

In Appendix 1. *Matteuccia* Tod. was accepted, but it should have been correctly cited as a synonym of *Onoclea* L. (Onocleaceae).

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