



Nomenclatural notes on *Tectaria blepharorachis* (comb. nov.) and *T. fibrillosa* (Tectariaceae; Pteridophyta) for Malagasy fern flora

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Abstract

While working on a monograph of *Ctenitis* (Dryopteridaceae) found in Madagascar we discovered that two *Tectaria*-related names need nomenclatural attention: the name *C. poolii* (C.Christensen) Tardieu-Blot is not legitimate, and *Dryopteris blepharorachis* C.Christensen should be reinstated from synonymy. A new combination, *Tectaria blepharorachis* (C.Christensen) Li Bing Zhang & Yi F. Duan, is proposed. Line drawings of pinnae of the both related species are provided for identification purpose.

Introduction

Species of *Ctenitis* (C.Christensen) C.Christensen (1938: 544) (Dryopteridaceae), a fern genus previously placed in Tectariaceae, are widespread in the New and Old World wet tropics (Christensen 1938, Mickel & Smith 2004). A morphologically similar genus *Tectaria* Cavanilles (1799: 115) (Tectariaceae) is frequently found in tropical regions, with most species growing terrestrially in rain forests (Ding *et al.* 2013). These two genera share similar hairs, but the veins of *Ctenitis* are free while those of *Tectaria* are usually anastomosing (Holttum 1983, Mickel & Smith 2004). While preparing a monograph of *Ctenitis* in Madagascar, we found that two *Tectaria*-related names need nomenclatural attention: the name *C. poolii* (C.Christensen) Tardieu-Blot (1958: 330) is not legitimate, and *Dryopteris blepharorachis* C.Christensen, treated previously as a synonym, should be recognized with the latter transferred to *Tectaria*.

Taxonomy

1. *Tectaria fibrillosa* (Baker) J.P.Roux (2009: 194) (Figure 1).

Basionym:—*Nephrodium fibrillosum* Baker (1876: 418).

Type: MADAGASCAR. Antananarivo, *W. Pool s.n.* (holotype K-000351164!).

Homotypic synonyms:—*Aspidium fibrillosum* (Baker) Kuhn (1879: 65); *Dryopteris poolii* C.Christensen (1905: 285); *Ctenitis poolii* (C.Christensen) Tardieu-Blot (1958: 330), *nom. illeg.*; *Pseudotectaria fibrillosa* (Baker) Holttum (1990: 261).

Distribution: Madagascar.

When *Tectaria fibrillosa* was published, *Ctenitis poolii* was cited as a homotypic synonym by Roux (2009). The latter was based on *Dryopteris poolii*, a nomen novum for *Nephrodium fibrillosum*, the epithet being blocked by *D. fibrillosa* (Baker) C.Christensen (1905: 264) when transferred to *Dryopteris*. However, the epithet was available when the species was transferred to *Ctenitis*. Therefore, *C. poolii* is not legitimate.

Additional specimens examined:—MADAGASCAR. Antsiranana: Doany, PN DE Marojejy, 11.5 km sud-est de Doany, [14°25'36"S, 49°36'30"E], alt. 820 m, 14 Oct 2001, *F. Rakotonrainibe* & *H. Rasolohery* 6226 (K, MO, P, TEF). Antsiranana: Vohemar, Daraina, Forêt de Binara, 7.5 km au sud-ouest de Daraina, [13°15'12"S, 49°37'12"

contains at least three sheets at BM, S, and S-P, respectively. Holttum cited the one at S as the “type” (Holttum 1990) and thereby effectively lectotypified this name.

Additional specimen examined:—MADAGASCAR. Mandraka, 19 Jun 1906, *Alleizette 81* (P).

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References

- Baker, J.G. (1876) On a collection of ferns made by Mr. William Pool in the interior of Madagascar. *Journal of the Linnean Society, Botany* 15: 411–422.
<http://dx.doi.org/10.1111/j.1095-8339.1876.tb00251.x>
- Cavanilles, A.J. (1799) Helechos propiamente dichos, esto es, Helechos dorsíferos. *Anales de Historia Natural* 1: 109–115.
- Christensen, C. (1905) *Index Filicum*. Copenhagen: H. Hagerup.
- Christensen, C. (1916) New ferns from Madagascar. *Arkiv för Botanik* 14: 1–8.
- Christensen, C. (1938) Filicinae. Pp. 522–550 in: Verdoorn, F. (ed.), *Manual of Pteridology*. The Hague: Nihoff.
- Ding, H.H., Chao, Y.S. & Dong, S.Y. (2013) Taxonomic novelties in the fern genus *Tectaria* (Tectariaceae). *Phytotaxa* 122: 61–64.
<http://dx.doi.org/10.11646/phytotaxa.122.1.3>
- Holttum, R.E. (1983) The fern-genera *Tectaria*, *Heterogonium* and *Ctenitis* in the Mascarene Islands. *Kew Bulletin* 38: 107–130.
<http://dx.doi.org/10.2307/4107974>
- Holttum, R.E. & Lin, Y.X. (1990) A re-assessment of the fern genus *Pseudotectaria*. *Kew Bulletin* 45: 257–263.
<http://dx.doi.org/10.2307/4115683>
- Kuhn, M. (1879) Cryptogamae vasculares. In: Ascherson, P.F.A. Ascherson, P.F.A., Boeckeler, J.O., Klatt, F.W., Kuhn, F.A.M., Lorentz, P.G. & Sonder, O.W., *Von der Decken's Reisen in OstAfrica, 3, 3, Botanik*. Leipzig: C.F. Winter. pp. 7–71.
- Mickel, J.T. & Smith, A.R. (2004) The pteridophytes of Mexico. *Memoirs of the New York Botanical Garden* 88: 1–1055.
- Roux, J.P. (2009) Synopsis of the Lycopodiophyta and Pteridophyta of Africa, Madagascar and neighbouring islands. *Strelitzia* 23. Pretoria: South African National Biodiversity Institute.
- Tardieu-Blot, M.L. (1958) Famille 5: Aspidiacées. Pp. 302–391 in: Hubert, H. (ed.), *Flore de Madagascar et des Comores*, vol. 1. Paris: Typographie Firmin-Didot et Cie.