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A new combination in *Arachniodes* (Dryopteridaceae)

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The fern species *Polystichum polyodon* Ching (1936: 93) of Dryopteridaceae is endemic to North East India (Arunachal Pradesh, Manipur, Meghalaya) and expected to occur in Myanmar and South West China (Ebihara *et al.* 2012). Wallich (1832) first named it as *Polypodium polyodon* Wallich (1832: 241) *nom. nud.;* Christensen (1906: 555; 1930) considered it as synonym of *Polystichum hookerianum* (Presl 1836: 77) Christensen (1906: 582). Ching (1936) separated it as *P. polyodon* and recently Ebihara *et al.* (2012: 119) placed it in *Phanerophlebiopsis* Ching (1965: 115) as *Phanerophlebiopsis polyodon* (Ching) Fraser-Jenk. in Ebhara *et al.* (2012: 119) due to its long narrower pinnae and sori in more than one row.

Specimens of *Polystichum polyodon* collected from Cherrapunji, Meghalaya, India (Fig. 1A-C) showed that this species differs from *P. hookerianum* in having more deeply lobed crenate margins of pinnae (Fig. 1B), vegetative buds in sub-terminal part of rachis and free venation (Fig. 1C), rather than the almost entire or serrulate pinnae margins, absent vegetative buds and the partly anastomosing veins of *P. hookerianum*. The distinct combination of 'free veins and sori in more than one row' of *P. polyodon* do not justify its placement in *Polystichum* sect. *Adenolepia* Daigobo (1972: 61) with *P. hookerianum* and other related species characterised by either 'free veins with a single row of sori' or 'anastomosing veins with more than one row of sori' (Zhang *et al.* 2013).

Molecular phylogenetic study by Liu *et al.* (2007) revealed that *Phanerophlebiopsis* is a synonym of *Arachniodes* Blume (1828: 241), as suggested earlier by Kramer (1990), who saw a strong similarity between *Phanerophlebiopsis* and *A. assamica* (Kuhn 1869: 108) Ohwi (1962: 37). *Phanerophlebiopsis duplicatoserrata* Ching (1965: 116) and *Ph. bipinnata* Wu (1993: 255) were found to be nested within *Arachniodes* (Liu *et al.* 2007) and now are considered as *A. blinii* (Léveillé 1915: 456) Nakaike (2001: 9) and *A. yoshinagae* (Makino 1899: 383. 1964.) Ching (1964: 383) respectively (Zhang *et al.* 2013).

Polystichum polyodon resembles *Arachniodes blinii* and *A. yoshinagae* in having simply pinnatifid frond, pinnatifid apex of frond (Fig. 1A), oblong-lanceolate pinnae with lobed crenate margins (Fig. 1B), scaly stipe & midrib, sori terminal on veinlets, entire brown fugacious indusia and most significantly 'free veins with more than one row of sori' (Fig. 1B, C). Thus irrespective of pending further molecular support, *P. polyodon* should be placed in *Arachniodes*, for which a new combination is proposed here.

Arachniodes polyodon (Ching) Mazumdar, *comb. nov.*

Polystichum polyodon Ching (1936: 93). *Polypodium polyodon* Wallich (1832: 241) *nom. nud. Phanerophlebiopsis polyodon* (Ching) Fraser-Jenk. in Ebihara *et al.* (2012: 119). Type:—INDIA. Assam (?): Mt Sillet [Churra], *W. Gomez s.n.* [*Wallich 7079*] (holotype K-000618099).

Selected specimens (digitalised) examined:—*Arachniodes assamica*. VIETNAM: Hoang Lien National Park, 10 December 2010, *Y.-H. Chang 20101210-042* (TAIF-398359, 398360, 398361), *Y.-H. Chang 20101210-043* (TAIF-398357, 398358).—*Arachniodes blinii*. CHINA: Guizhou, Mt. Migong, 21 June 2010, *J.-B. Zhang, X. Xiang & K. Xiang 20100621008* (TAIF-351696, 351697), 23 April 2010, *J.-B. Zhang, X. Xiang & K. Xiang 20100423004* (TAIF-352197, 352198), Hunan, Sangzhi County, Nanmuping, 30 April 2010, *J.-B. Zhang, X. Xiang & K. Xiang 20100430124* (TAIF-353245, 353246).—*Arachniodes yoshinagae*. JAPAN: Tosa, Mt. Honokawa, 26 July 1887, *Anonymous s.n.* (TAIF-2013).—*Polystichum hookerianum*. BHUTAN: Trashigang District, Khaling, 22 May 2009, *C.R. Fraser-Jenkins FN139* (TAIF-390282, 390283).—*Polystichum polyodon*. INDIA: Khasia, 4000-5000 ft, *J.D.*

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