

## BOOK REVIEW

**An annotated checklist of Indian Pteridophytes, Part 2. Fraser-Jenkins, C.R., Gandhi, K.N. & Kholia, B.S. 2018. pp 574. Bishen Singh Mahendra Pal Singh, Dehra Dun, India. Price Indian Rs 5850.00, US \$ 100.00, £80.00, Euro 95.00.**

A review of *An annotated checklist of Indian Pteridophytes, Part 1* was published in 2016 in The Fern Gazette, Vol. 20, Part 3. This second volume follows the same format, but covers the families Woodsiaceae to Dryopteridaceae, and includes some of the larger complex genera like *Dryopteris*, but extensive morphological studies by the first author in the field and herbarium, coupled with cytological investigation, has already helped resolve some of the difficulties arising from extensive hybridization and polyploidy in the genus.

The volume comprises chapters on classification, the taxonomic treatments of the four families Woodsiaceae, Onocleaceae, Blechnaceae and Dryopteridaceae, a long appendix with corrections and additions to Part 1, and 356 colour photographs. A list of references is provided at the end of each family account and Part 2 concludes with a taxonomically arranged index of accepted and excluded taxa.

*An annotated checklist of Indian Pteridophytes, Part 2* starts with a discussion of classification, as a consensus classification based on molecular data by the Pteridophyte Phylogeny Group (PPG-1) (2016), was published shortly after the publication of *Part 1*. This scheme is heavily criticised, particularly for the break-up of genera like *Lycopodium*, *Marattia*, *Osmunda*, *Asplenium* and *Blechnum* based on “minor and insignificant characters”, and “should be more appropriately recognised as infra-generic sections”. But the value of molecular data is not rejected outright, and the classification published by Smith, Pryer, Schuettpelz, Korall, Schneider & Wolf (2006) based on morphological and molecular evidence is recognised as “largely taxonomically stable, practical and comprehensible”. However, an appendix to *Part 2* was added after the publication of nomenclatural changes by Christenhusz, Fay and Bing (2018) that resulted in 3286 new combinations – “approximately 1000 in Pteridophytes”; this publication is heavily criticised, and a long list of these new combinations are synonymised back to their earlier genera and species names. The classification used in *Part 2* is that given in full in *Part 1*.

Most of the volume is given up to the very detailed checklist, each taxon with the type material given (and lectotypes designated where required), and extensive synonymy, followed by distribution in India and elsewhere. The authors also include discussion of a number of ‘excluded’ species - those taxa that have been erroneously reported for India. Further notes may cover discussion of disputed records, previous taxonomic treatments, interpretation of herbarium labels, and morphological variation between populations and it is made clear where further detailed work is required. For example for the genus *Cyrtomium*, the authors avoid listing any Chinese synonyms as they feel that much more detailed morphological and cytological work is needed to clarify many of the species names used in the account in *Flora of China* (Wu et al., 2013).

Other little nuggets are included – *Tectaria coadunata* (C.Presl) Copel. “is the ‘kalo neuro’ [black fern] of nutritional and medicinal use...in Nepal”. *Diplazium maximum* (D.Don) C.Chr. is the correct name for the “common large and edible species of the whole Himalayan region .... long known in the West Indo-Himalaya as “*D. polypodiodes*” in error, .... but *D. polypodiodes* is a quite different Malesian species...

.. and in India is confined to the South”.

Twenty-nine new taxa are described, and usefully listed in **bold** in the index.

#### REFERENCES

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