

CORRECTION AND ADDITION TO THE POLYPODIACEOUS FERNS OF INDIA

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The nomenclature of 56 taxa enumerated in Polypodiaceous ferns of India by Satija and Bir has been updated. During the revision 23 taxa have also been added and 4 taxa have been found doubtful hence excluded.

Keywords: Corrections; Ferns; Nomenclature changes; Polypodiaceae.

Introduction

The Pteridophytes constitute the most primitive group of vascular plants and are comparatively well represented in modern flora, the Filicopsida or the group of ferns are the most predominant among Pteridophytes, considering the richness of the genera and species and their wide geographical distribution. On account of their central position in the world of higher plants and their great antiquity, the Pteridophytes have attracted the attention of botanists more than any other group of plants. Never-the-less they remain yet one of the most controversial with regard to their taxonomy and phylogeny.

The old comprehensive family Polypodiaceae was divided into 15 subfamilies¹ and it was suggested that they might better be considered as families of which two subfamilies Dipteridoideae and Polypodioidae have been merged into vast family Polypodiaceae². The most adventurous treatment of the old group polypodiaceae is by Ching³ in which he divided it into 33 natural families of which six families (Loxogrammaceae, Cheiroleuriaceae, Dipteridaceae, Platyceriaceae, Polypodiaceae, Grammitidaceae) have been merged in Polypodiaceae by Copeland². Pichi Sermolli⁴⁻⁶ on the other hand has grouped the Polypodiaceae of Christensen¹ in to 7 orders one of which the polypodiales now consists of 5 families (Dipteridaceae, Cheiroleuriaceae, Polypodiaceae, Loxogrammaceae, Grammitidaceae), all of them were grouped in one family the Polypodiaceae².

Nayar^{7,8} divided Christensen's Polypodiaceae into 20 families, one of which the Polypodiaceae consists of 5 subfamilies (Platycerioideae, Pleopeltidoideae, Polypodiodeae, Microsorioideae, Crypsinoideae). He considered Dipteridaceae,

Cheiroleuriaceae, Loxogrammaceae and Grammitidaceae as distinct families thus Nayar divided Copeland's Polypodiaceae into 5 families (Cheiroleuriaceae, Dipteridaceae, Loxogrammaceae, Polypodiaceae and Grammitidaceae). Bierhorst⁹ divided Copeland's Polypodiaceae into 3 families i.e., Dipteridaceae, Cheiroleuriaceae, Polypodiaceae. Crabbe *et al.*¹⁰ divided Copeland's Polypodiaceae into 4 families Cheiroleuriaceae, Dipteridaceae, Polypodiaceae, Grammitidaceae with Polypodiaceae into 5 subfamilies (Drynarioideae, Platycerioideae, Microsorioideae, Pleopeltidoideae, Polypodiodeae). Ching¹¹ divided Copeland's² Polypodiaceae into 7 families (Dipteridaceae, Cheiroleuriaceae, Polypodiaceae, Drynariaceae, Platyceriaceae, Grammitidaceae, Loxogrammaceae), of which the polypodiaceae has been subdivided into 5 subfamilies i.e., Polypodioidae, Lepisoroideae, Pryrosioideae, Crypsinoideae, Microsorioideae. Nayar^{7,8} separated Grammitidaceae from Gleicheniales stock and placed it near Thelypteridaceae instead of Polypodiaceous fern.

Satija and Bir¹² presented a comprehensive summary of the known Polypodiaceous ferns from the present political boundary of India. They have adopted the classification of Pichi Sermolli⁶ and enumerated 130 species of Polypodiaceae in the book. During the course of our studies on Polypodiaceous ferns it has been observed that there are several nomenclatural confusions which have been rectified in the present work. During the preparation of this work, several nomenclatural equivalents are given for plant names appended in Satija and Bir¹², which are presented here strictly following

the same order of scheme of classification as presented by Satija and Bir¹².

The nomenclatural changes recorded are based on literature in addition to our own observation on the Indian ferns. The plant names used by Satija and Bir¹² are quoted as such in light face capital letters (non italic) and are followed by the valid nomenclatural equivalent printed in bold face along with citation of literature. Following each of the valid name, reference is made to the original validity published citation on which the

plant has been based (basionyms) or on the basis of which the name is conserved as per International Code of Botanical Nomenclature. The numbers, given after each species included here in bold face are the page numbers of Satija and Bir¹². The available information on the latest nomenclature has been incorporated.

It is hoped that this work will be helpful to the research students who can save much of their labour and time hunting for the valid names.

Corrections

Fam. : Grammitidaceae

CTENOPTERIS TRICHOMANOIDES (Sw.) J.Sm., Hist. Fil. 184. 1875. [p.2].

= *Xiphopteris sikkimensis* (Hieron.) Copel., Gen. Fil. 215. 1947; in Hara, Fl.

East. Himal. 1: 499. 1966; Chandra & Kaur, Nomen. Guide 34. 1987.

Basionym : *Polypodium sikkimense* Hieron. in Hedw. 44 : 97. 1905.

Fam. : Loxogrammeaceae

LOXOGRAMME LANCEOLATA Pr.; Satija & Bir in Asp. Pl. Sci. 8:7. 1985.

= *Loxogramme parallela* Copel. in Perkins, Fragm. Fl. Philipp. 3: 182. 1905;

Sledge in Bull. Brit. Mus. (Nat. Hist.) 2: 142. 1960; Sledge in Bot. J.Linn. Soc. 84: 22.

1982; Chandra & Kaur, Nomen. Guide 6. 1987; Khullar, Fern Fl. W. Himal. 1: 57. 1994.

LOXOGRAMME SALICIFOLIA (Mak.) Mak. in Hara, Fl. East. Himal. 1: 495. 1966. [p.8]

= *Loxogramme chinensis* Ching in Sinensia 1: 13. 1929 & Icon. Fil. Sin. 1: 47. 1930; in Hara, Fl. East. Himal. 2:218. 1971.

Fam. : Polypodiaceae

POLYPODIUM MICRORHIZOMA Clarke ex Bak. in Hook. & Bak., Fil. ed. 2: 511. 1874. [p.10]

= *Goniophlebium microrrhizoma* (Clarke ex Bak.) Bedd., Suppl. FSI and FBI 21t. 384.

1876 & Handb. 322. 1883; Rodl-Linder in Blumea 34: 396. 1990.

Basionym : *Polypodium microrrhizoma* Clarke ex Bak. in Hook & Bak., Syn. Fil. ed. 2: 511. 1874.

POLYPODIUM MICRORHIZOMA var. XEROPHYTICA Mehra in Punjab Univ. Bot. Publ. 7:22. 1982. [p.11].

= *Goniophlebium microrrhizoma* (Clarke ex Bak.) Bedd., Suppl. FSI and FBI 21t. 384.

1876 & Handb. 322. 1883; Rodl-Linder in Blumea 34: 396. 1990.

Basionym : *Polypodium microrrhizoma* Clarke ex Bak. in Hook & Bak., Syn. Fil. ed. 2: 511. 1874.

POLYPODIUM ATKINSONI (C.Chr.) Ching in Acta Phytotax. Sin. 16(4): 27. 1978. [p.11].

= *Goniophlebium hendersonii* Bedd., Suppl. FSI and FBI 21t. 383. 1876; Rodl-Linder in

Blumea 34(4) ; 410. 1990.

POLYPODIUM NIPONICUM Mett. in Ann. Lugd. Bat. 2: 222. 1866. [p.11].

= *Goniophlebium niponicum* (Mett) Bedd., Handb. Suppl. 90. 1892; Rodl-Linder in Blumea

34 (4) ; 407. 1990.

Basionym : *Polypodium niponicum* Mett. in Ann. Lugd. Bat. 2: 222. 1866.

POLYPODIUM SUBAMOENUM Clarke in Trans Linn. Soc. London II Bot. 1: 550. 1880 non Christ (1911). [p. 12].

= *Goniophlebium subamoenum* (Clarke) Bedd., Handb. 317. 1883; Rodl-Linder in Blumea 34(4): 411. 1990.

POLYPODIUM AMOENUM Wall. ex Mett., Farngett. Polypod. 80. 1857. [p. 11].

= *Goniophlebium amoenum* (Mett.) J. Sm. in J. Bot. 4: 57. 1842; Rodl-Linder in Blumea 34(4): 388. 1990.

POLYPODIUM AMOENUM var. XEROPHYTICUM Mehra & Bir in Res. Bull. Punjab Univ. (n.s.) 15: 166. 1974. [p. 13]

= *Goniophlebium amoenum* var. *chinense* (Ching) Rodl-Linder in Blumea 34(2): 391. 1990.

POLYPODIUM LACNOPUM Wall. ex Hook., Icon. Pl. t. 952. 1854. [p.13].

= *Goniophlebium lacnopum* (wall. ex Hook.) Bedd., FBI t. 163. 1866; Rodl-Linder, Blumea 34(2): 393 (1990).

POLYPODIUM LACNOPUM var. XEROPHYTICUM Mehra, Punjab Univ. Bot. Publ. 7: 22. 1939 [p. 14]
= *Goniophlebium lacnopum* (Wall. ex Hook.) Bedd., FBI t.163. 1866; Rodl-Linder in
Blumea 34 (2): 393. 1990.

Basionym : *Polypodium lacnopum* Wall. ex Hook., Icon. Pl. t.952. 1854.

POLYPODIUM MANMEIENSE Christ in Bull. Herb. Boiss. 6: 870. 1889. [p. 14].

= *Goniophlebium manmeiense* (Christ) Rodl-Linder in Blumea 34(2): 394. 1990.

POLYPODIUM WATII (Bedd.) Tagawa in J. Jap. Bot. 22: 163. 1949. [p. 15].

= *Goniophlebium niponicum* var. *watii* Bedd., Handb. Suppl. 90. 1892; Rodl-Linder in
Blumea 34(2): 409. 1990.

POLYPODIUM PRAINII (Bedd.) C. Chr., Index Fil. 556. 1906. [p. 15].

= *Goniophlebium prainii* Bedd. in J. Bot. London 31: 226. 1893; Rodl-Linder in Blumea 34(2): 397. 1990.

GONIOPHLEBIUM MOLLE Bedd., FBI t.206. 1868 & Handb. 322 1883. [p. 15].

= *Goniophlebium subauriculatum* (Bl.) Presl, Tent. Pterid. 186. 1836; Rodl-Linder in
Blumea 34(2): 400. 1990.

Basionym : *Polypodium subauriculatum* Bl., Enum. Pl. Jav. 133. 1828 non Bak (1867).

a) LEPISORUS ANGUSTUS Ching in Bull. Fan Mem. Inst. biol. (Bot). 4: 86. 1933. [p. 21].

b) LEPISORUS STEWARTII Ching in Acta Bot. Aust. Sin. 1: 125. 1983. [p. 100].

= *Lepisorus thunbergianus* (Kaulf.) Ching, Bull. Fan Mem. Inst. Biol. (Bot.) 4: 88. 1933;
Fras.-Jenk. in Pakistan Syst. 5: 97. 1991.

Basionym : *Pleopeltis thunbergianus* Kaulf., Wesen d. Farnkr. 113. 1827.

a) LEPISORUS KASHYAPII (Mehra) Mehra in Bir. Res. Bull. Punjab Univ. (n. s.) 13: 24. 1962. [p. 23].

b) LEPISORUS KASHYAPII var. Bir & Satija in Amer. Fern J. 71: 53. 1981. [p.23]

c) LEPISORUS KASHYAPII var. MINOR Bir & Satija in Amer. Fern J. 71: 55. 1981. [p. 23].

d) LEPISORUS KASHYAPII var. MAJOR Bir & Satija in Amer. Fern J. 71: 55. 1981. [p. 23].

= *Lepisorus mehraea* Fras.-Jenk., New Sp. Syndr. Indian Pterid. 159. 1997.

LEPISORUS TENUICAUDA Ching in Acta Bot. Aust. Sin. 1: 22. 1983. [p. 99].

= *Lepisorus loriformis* (Wall. ex Mett.) Ching in Bull. Fan Mem. Inst. Biol. (Bot). 4: 81 (1933).

Basionym : *Polypodium loriformis* Wall. ex Mett. in Abh. Senckenb. Naturf. Ges. 2: 92. 1857.

a) LEPISORUS EXCAVATUS var. HIMALAYENSIS Bir et Trikha in Amer. Fern J. 64: 58. 1974. [p. 27].

b) LEPISORUS EXCAVATUS var. MORTONIANUS Bir et Trikha in Amer. Fern J. 64: 56. 1974. [p. 27].

c) LEPISORUS LEOPTERIS (Kze.) Bir et Trikha in Amer. Fern J. 64: 54. 1974. [p. 30].

= *Lepisorus sesquipedalis* (J. Sm.) Fras.-Jenk., New Sp. Syndr. Indian Pterid. 157. 1997.

Basionym : *Drynaria sesquipedalis* J. Sm. in Bot. Mag. 72 Comp. 113. 1846.

LEPISORUS BICOLOR (Takeda) Ching in Bull. Fan Mem. Inst. Biol. (Bot.) 4: 71. 1933. [p. 28].

= *Lepisorus morrisonensis* (Hayata) H. Ito in J. Jap. Bot. 11: 92. 1935; Fras.-Jenk., New
Sp. Syndr. Indian Pterid. 167. 1997.

Basionym : *Polypodium morrisonensis* Hayata in Bot. Mag. Tokyo 23; 77. 1909.

LEPISORUS SUBOLIGOLEPIDUS Ching in Bull. Fan Mem. Inst. Biol. (Bot). 4: 77. 1933. [p.29].

= *Lepisorus oligolepidus* (Bak.) Ching in Bull. Fan Mem. Inst. Biol. (Bot.) 4: 80. 1933;
Ching & S.K. Wu in Wu Fl. Xizang. 1 : 310. 1983.

Basionym : *Polypodium oligolepidum* Bak., Gard. Chron. n.s. 14: 484. 1880.

a) PLEOPELTIS MACROSPHAERA (Bak.) Panigr. et Patn. in Proc. Nat. Acad. Sci. India B34: 481. 1964. [p.32].

b) PLEOPELTIS MACROSPHAERA var. ASTROLEPIS (Bak.) Dixit, Census Indian Pterid. 41. 1984. [p.32].

= *Lepisorus macrospherus* (Bak.) Ching in Bull. Fan Mem. Inst. Biol. (Bot.) 4: 73. 1933;
Ching & S. K. Wu in Wu, Fl. Xizang. 1: 302. 1983; Dixit, Census Indian Pterid. 41. 1984.

LEMMAPHYLLUM SUBROSTRATUM (C. Chr.) Ching in Bull. Fan Mem. Inst. Biol.
(Bot.) 4: 97. 1933. [p. 34].

= *Lepidogrammitis rostrata* (Bedd.) Ching & S. K. Wu in Wu Fl. Xizang. 1: 312. 1983.;
Fras.-Jenk., New Sp. Syndr. Indian Pterid. 153. 1997.

Basionym : *Pleopeltis rostrata* Bedd., FBI t. 159. 1867.

- BELVISIA SPICATA (L. f.) Mirbel; Mehra & Bir in Res. Bull. Panjab Univ. (n.s.) 15: 165. 1964. [p. 36].
 = *Belvisia revoluta* (Bl.) Copel., Gen. Fil. 192. 1947: Sledge in Bull. Brit. Mus. (Nat. Hist.) Bot. 2: 139. 1960; Chandra & Kaur, Nomen. Guide 5. 1987.
 Basionym : *Hymenolepis revoluta* Bl., Enum. Pl. Jav. 201. 1828.
- PYRROSIA HETERACTA (Mett. ex Kuhn) Ching in Bull. Chin. Bot. Soc. 1: 57. 1935. [p.42].
 = *Pyrrosia lingua* var. *heteracta* (Mett. ex Kuhn) Hovenkamp in Blumea 30: 208. 1984.
 Basionym : *Polypodium heteractis* Mett. ex Kuhn in Linnaea 36: 140. 1869.
- PYRROSIA BEDDOMEANA (Gies.) Ching in Bull. Chin. Bot. Soc. 1: 68. 1935. [p.45].
 = *Pyrrosia costata* (Pr. ex Bedd.) Tagawa et K. Iwats. in Acta Phytotax. Geobot. 22: 100. 1967; Khullar, Fern Fl. W. Himal. 1: 158. 1994.
 Basionym : *Niphobolus costata* Wall. ex Presl, Bedd., FBI t. 120. 1866.
- PYRROSIA STICTA (Kze.) Holtt. in Novit. Bot. Inst. Univ. Carol. Prag. 1968: 30. 1969. [p. 50].
 = *Pyrrosia porosa* (Pr.) Hovenkamp in Blumea 30: 208. 1984; Fras.-Jenk., New Sp. Syndr. Indian Pterid. 232. 1997.
 Basionym : *Niphobolus porosus* Presl, Tent. Pterid. 200. 1936.
- PYRROSIA STENOPHYLLA (Bedd.) Ching in Bull. Chin. Bot. Soc. 1: 55. 1935. [p. 51].
 = *Pyrrosia porosa* var. *stenophylla* (Bedd.) Hovenkamp in Blumea 30: 208. 1984.
 Basionym : *Niphobolus fissus* var. *stenophyllus* Bedd., Handb. Suppl. 92. 1892.
- DRYMOGLOSSUM PILOSELLIODES (L.) Presl, Tent. Pterid. 227. 1836. [p. 53].
 = *Pyrrosia piloselliodes* (L.) Price in Kalikasaan: Philipp. J. Biol. 3: 176. 1974; Chandra & Kaur, Nomen. Guide 6. 1987.
 Basionym : *Pteris piloselliodes* Linn., Sp. Pl. ed. 2, 2: 1530. 1753.
- DRYMOGLOSSUM HETROPHYLLUM (L.) Trim. in J. Linn. Soc. Bot. 24: 152. 1887. [p. 54].
 = *Pyrrosia heterophylla* (L.) Price in Kalikasaan: Philipp. J. Biol. 3: 177. 1974; Chandra & Kaur, Nomen. Guide 22. 1987.
 Basionym : *Acrosticum heterophyllum* Linn., Sp. Pl. 2: 1067. 1753.
- PHYMATOPTERIS GRIFFITHIANA auct. non Hook.; Satija & Bir in Asp. Pl. Sci. 8: 55. 1985. pro parte.
 = *Phymatopteris integerrima* (Ching) Bir; Satija & Bir in Asp. Pl. Sci. 8: 98. 1985.
 Basionym : *Phymatopsis integerrima* Ching in Acta Bot. Aust. sin. 1: 25. 1983.
- ARTHROMERIS LUNGTAUENSIS Ching in Contr. Inst. Bot. Natn. acid. Piep. 2: 98. 1933. [p. 67].
 = *Arthromeris lehmanni* (Mett.) Ching in Contr. Inst. Bot. Natn. acid. Piep. 2: 96. 1933; in Ohashi, Fl. East. Himal. 3: 196. 1975.
 Basionym : *Polypodium lehmanni* Mett. in Abh. Senekneb. Naturf. Ges. 2: 109. 1987.
- a) MICROSORUM PHYLLOMANES (Ching) Koidz. in Acta Phytotax. Geobot. 5: 50. 1936. [p. 72].
 b) NEOLEPISORUS OVATUS (Fee) Ching in Acta Phytotax. Sin. 9: 99. 1964. [p. 97].
 c) NEOLEPISORUS ENSATUS (Thunb.) Ching in Bull. Fan Mem. Inst. Biol. (Bot.) 10: 14. 1940. [p. 97].
 = *Neochieopteris ovata* (Fee) Fras.-Jenk., New Sp. Syndr. Indian Pterid. 180. 1997.
 Basionym : *Drynaria ovata* Fee, Gen. Fil. 5 Mem.: 270. 1850-52.
- a) MICROSORUM NORMALE (D. Don) Ching in Bull. Fan Mem. Inst. Biol. (Bot.) 4: 299. 1933. [p. 73].
 b) TRICHOLEPIDUM NORMALE (D. DON) Ching in Acta Phytotax. Geobot. 29: 41. 1978. [p. 95].
 = *Neochieopteris normalis* (D. Don) Tagawa in J. Jap. Bot. 27: 317. 1952; Fras.-Jenk., New Sp. Syndr. Indian Pterid. 180. 1997.
 Basionym : *Polypodium normale* D. Don, Prod. Fl. Nepal. 1. 1825.
- MICROSORUM SUPERFICIALE (Bl.) Ching in Bull. Fan Mem. Inst. Biol. (Bot.) 4: 299. 1933. [p. 74].
 = *Neochieopteris superficialis* (Bl.) Bosman in Fras.-Jenk., New Sp. Syndr. Indian Pterid. 179. 1997.
 Basionym : *Polypodium superficiale* Bl., Enum. Pl. Jav. 123. 1828.
- a) MICROSORUM ZIPPELII (Bl.) Ching in Bull. Fan Mem. Inst. Biol. (Bot.) 4: 308. 1933. [p. 76].
 b) MICROSORUM INDICUM Ching in Acta Bot. Aust. Sin. 1: 23. 1983. [p. 99].
 = *Neochieopteris zippelii* (Bl.) Bosman in Fras.-Jenk., New Sp. Syndr. Indian Pterid. 180. 1997.
 Basionym : *Polypodium zippelii* Bl., Fl. Jav. Fil. t.80. 1829.
- a) MICROSORUM PTEROPUS (Bl.) Copel. in Univ. Calif. Publ. Bot. 16: 112. 1929. [p. 78].
 b) MICROSORUM PTEROPUS f. MINOR (Bedd.) Ching in Bull. Fan Mem. Inst. Biol. (Bot.) 4: 312. 1933. [p. 79].
 = *Colysis pteropus* (Bl.) Bosman in Fras.-Jenk., New Sp. Syndr. Indian Pterid. 89. 1997.

Basionym : *Polypodium pteropus* Bl., Enum. Pl. Jav. addend. 3. 1828.

MICROSORUM HANCOCKII (BAK.) Ching in Bull. Fan Mem. Inst. Biol. (Bot.) 4: 309. 1933. [p. 79].

= *Colysis dilatata* (Bedd.) J. Sm., Hist. Fil. 101. 1875; Fras.-Jenk., New Sp. Syndr. Indian Pterid. 88, 89. 1997.

Basionym : *Polypodium dilatatum* Wall. ex Hook., Sp. Fil. 5: 85. 1863 nom. nud. non Hoffm. (1796) nec Liebm. (1849).

PARALEPTOCHILUS DECURRENS (Bl.) Copel., Gen. Fil. 198. 1947. [p. 81].

= *Leptochilus decurrens* Bl., Enum. Pl. Jav. 206. 1828; Sledge in Bull. Brit. Mus. (Nat. Hist.) Bot. 2(5): 140. 1960 & in Bot. J. Linn. Soc. 84: 21. 1982; Chandra & Kaur, Nomen. Guide 69. 1987.

Additions

A summary list of additions to the Polypodiaceous Ferns of India during the last one and half decades (1985-1999) is presented.

Fam. : Loxogrammeaceae

LOXOGRAMME (Bl.) Presl

L. avalanchia Dixit et Das in Bull. Bot. Surv. India 35(1-4): 134. 1993.

[= *L. chinensis* Ching in Fras.-Jenk., New Sp. Syndr. Indian Pterid. 173. 1997.]

Distribution : Tamil Nadu (Nilgiri).

L. carinata Price in Amer. Fern J. 80(1): 4 f. 1. 1990; Dixit & Das in Indian Fern J. 11:28. 1994.

Distribution : Darjeeling, Sikkim.

L. cuspidata (Zenk.) Price in Amer. Fern J. 80(2): 61. 1994; Dixit & Das in Bull. Bot. Serv. India 35: 139. 1993.

Distribution : Tamil Nadu, Karnatka.

L. lankokiensis (Rosent.) C. Chr., Index Fil. Suppl. 3: 125. 1934; Singh & Panigr. in Bull. Bot. Surv. India 27: 253. 1985.

Distribution : Arunachal Pradesh, Assam.

L. mussoriana Dixit et Das in Indian Fern J. 11: 60. 1994.

Distribution : Garhwal.

L. porcata Price in Amer. Fern J. 80(1): 6. 1990; Khullar, Fern Fl. W. Himal. 1: 60. 1994.

Distribution : Kashmir, Himachal Pradesh, Kumaun, Sikkim, Assam, Meghalaya, Manipur.

L. wallichiana (Hook.) Price in Amer. Fern J. 74:61. 1984; Dixit & Das in Indian Fern J. 11: 28. 1994.

Basionym : *Selliguea wallichiana* Hook., Icon. Pl. 3 t. 204. 1840.

Distribution : Darjeeling, Sikkim.

Fam.: Polypodiaceae

LEMMAPHYLLUM Presl

L. carnosum var. *longifolium* Rahman & Sen in Indian Fern J. 15: 182. 1998.

Distribution : Arunachal Pradesh, Sikkim.

LEPISORUS (J. Sm.) Ching

L. intermedius Ching et Khullar, Fern Fl. W. Himal. 1: 93. 1994.

[= *L. nudus* (Hook.) Ching in Fras.-Jenk., New Sp. Syndr. Indian Pterid. 157. 1997.]

Distribution : Kashmir, Garhwal, Kumaun.

L. Khullarii Pande et Singh in Indian Fern J. 7: 147. 1990.

[= *L. contortus* (Christ) Ching in Fras.-Jenk., New Sp. Syndr. Indian Pterid. 161. 1997.]

Distribution : Pithoragarh.

L. tenuipes Ching et Khullar in Indian Fern J. 1: 91. 1984.

[= *L. nudus* (Hook.) Ching in Fras.-Jenk., New Sp. Syndr. Indian Pterid. 166. 1997.]

Distribution : Kashmir, Himachal Pradesh, Kumaun, Garhwal.

L. variabilis Ching et S.K. Wu in Wu, Fl. Xizang. 1: 308. 1983.

[= *L. clathratus* (Clarke) Ching in Fras.-Jenk., New Sp. Syndr. Indian Pterid. 166. 1997.]

Distribution : Kashmir, Garhwal.

GONIOPHLEBIUM (Bl.) Presl

G. mengtzeense (Christ) Rodl-Linder in Blumea 34(2): 394. 1990.

Basionym : *Polypodium mengtzeense* Christ in Bull. Herb. Boiss 6: 869. 1898.

Distribution : Sikkim, Meghalaya.

G. persicifolium (Desv.) Bedd., Suppl. FSI and FBI 21. 1876.

Basionym : *Polypodium persicifolium* Desv. in Mag. Ges. Naturf. Berlin 5: 316.1811.

Distribution : Assam.

COLYSIS Presl

C. macrophylla (Bl.) Presl, Epim. Bot. 147. 1949; Thothathri *et al.*, J. Bombay Nat. Hist. Soc. 74: 249. 1977.

Basionym : *Grammitis macrophylla* Bl., Enum.Pl. Jav. 119. 1828.

Distribution : Great Nicobar Isl.

C. selligaea (Mett.) Ching in Sunyatsenia 5: 261. 1940; Thothathri *et al.*, J. Bombay Nat. Hist. Soc. 74: 251. 1977.

Basionym : *Polypodium selligaea* Mett., Poly. 3 tab., 214. 1857.

Distribution : Nicobar Island

C. beddomei Manickam *et* Irudayaraj in Taxon 46: 267. 1997.

Distribution : Andhra Pradesh, Tamil Nadu.

DRYNARIA (Bory) J. Sm.

D. bonii Christ in Phanerogamie 1: 186. 1909; Roos, Drynarioideae 261. 1985.

Distribution : Assam, Manipur

PHYTOMATOPTERIS Pic. Ser.

P. nepalensis (Nakaike) S. Chandra, The Ferns India 416. 2000.

Basionym : *Crypsinus nepalensis* Nakaike in Bull. Sci. Mus. Tokyo Ser. B 13(13): 95. 1987.

Distribution : Darjeeling.

PHYMATOSORUS Pic. Ser.

P. beddomei S. R. Ghosh in J. Econ. Tax. Bot. 6(2): 434. 1985.

[= *P. cuspidata* (D. Don) Pic. Ser. in Fras.-Jenk., New Sp. Syndr. Indian Pterid. 198. 1997.]

Distribution : Tamil Nadu, Kerala.

P. malabaricus (Nayer *et* Geevarghese) Geevarghese *ex* Nampy *et* Madhusoodanan in Fern Gaz. 14(7): 233. 1994.

Basionym : *Microsorium malabaricum* Nayer *et* Geevarghese, Fern Fl. malabar 399. 1993.

Distribution : Kerala (Malabar).

Excluded/Doubtful Taxa

Photinopteris speciosa (Bl.) Presl, Epim. Bot. 264. 1849; Nayar & Kaur, Comp. Bedd. Handb. 103. 1974. [p. 87].

Lepisorus oosphearus (C. Chr.) Ching in Bull. Fan Mem. Inst. Biol. Bot. 4: 70; 1933. [p. 31].

Phymatosorus benergiana (Pal *et* Pal) Pic. Ser. in Webbia 31: 249. 1977. [p. 69].

Microsorium hymenodes (Kze.) Ching in Bull. Fan Mem. Inst. Biol. (Bot.) 4: 295. 1933. [p. 74].

Dipteris conjugata Reinw., Syll. Pl. 2: 3. 1824; C. Chr., Index Fil. 243. 1905. [p. 91].

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