

A Final Review on Names of New Taxa Published and Types Deposited from India

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Abstract: The paper examines the presence/absence of type materials of the names of new taxa published from India from 1990 to 2004. Earlier, journals such as *Rheedea* and *Nordic Journal of Botany* were scanned for such publications and results summarized. The authors now scanned for new taxa published in *Bulletin of the Botanical Survey of India*, *Candollea*, *Indian Forester*, *Indian Journal of Forestry* and *The Journal of Economic and Taxonomic Botany* to give an inclusive analysis of the new taxa published for the said period. A consolidated account on the presence/absence of type materials is presented. Numerous inconsistencies between the data in the protologues and what is written on the original labels of type specimens are deliberated.

Keywords: Botanical Survey of India; Herbaria; Type deposition; Verification.

1. INTRODUCTION

Protologues and type materials form foundation in authenticating the identity of a given species. Appropriately, a verification exercise was undertaken to check whether the types of the names of the new taxa published from India are duly deposited or not in the herbaria of Botanical Survey of India as cited in the protologues. This check was done on new taxa described exclusively in taxonomy journals, *Nordic Journal of Botany* (1990–2004) and *Rheedea* (1991–2004). The results and implications of failing of such depositions were deliberated in a series of papers (Bandyopadhyay *et al.*, 2014, 2016, 2017a, 2017b and 2017c). Details on deposition of type materials of names of new taxa published in *Bulletin of the Botanical Survey of India*, *Candollea*, *Indian Forester*, *Indian Journal of Forestry* and *The Journal of Economic and Taxonomic Botany* from 1990 to 2004 are now presented here to give a complete picture. Furthermore, the authors presented here a consolidated picture on the availability/nonavailability of the types of the names referred in the respective protologues published in the said journals.

2. METHODOLOGY

The method of verification of type specimens housed at various herbaria in Botanical Survey of India is the same as followed earlier (Bandyopadhyay *et al.*, 2016).

Names those were included only based on holotype in Bandyopadhyay *et al.* (2017a) have not been included in the present paper. However, names in Bandyopadhyay *et al.* (2017a) having other types (isotypes and/or paratypes) have been included here with an asterisks.

The information on the holotype of names marked here with a hashtag (#) denoting the failings in holotype deposition (Bandyopadhyay *et al.*, 2017c) have not been mentioned here again. However, information on other types (isotypes or/and paratypes) in BSI herbaria, if any, have been given here. In some cases paratypes have not been searched, particularly when they are many and the also either a holotype or isotype is present in BSI herbaria. However, for *Alsophila gammiei* R.D.Dixit a number of paratypes have been cited as the note provided here is based on the paratypes.

2.1. Types Deposited

1. *Acacia tanjorensis* S.Ragupathy, Thoth. & A.Mahad., J. Econ. Taxon. Bot. 14(3): 751. 1990. (Leguminosae)

Type: India, Thanjavur district, Kodiakkarai, 3.2.1987, *Ragupathy* 264 (holotype MH); *Ragupathy* 264A (isotype CAL).

Note: Holotype is at MH; isotype is at CAL.

2. *Aeschynanthus tirapensis* U.C.Bhattach., Bull. Bot. Surv. India 35(1–4): 13.1997 (1993 publ. 1997). (Gesneriaceae)

Type: India, Arunachal Pradesh, Tirap Frontier Division, Rusa to Bimalpur, Sept. 8 1958, *G. Panigrahi* 17015A, bearing acc. no. 18329 of the ASSAM (holotype CAL); 17015B (isotype ASSAM).

Note: The holotype and two isotypes are at CAL; the holotype and one isotype are now retained at CAL; the other isotype has been sent to ASSAM. The field number, 17015 of a collection of *G. Panigrahi* has no suffixes, A or B, as stated in the protologue but have been recognized based on annotations made by the author and acc. no. given for the holotype. Though the holotype and the isotype, as expected, bear same field number, i.e., 17015, dates of collection on labels are different, 8.9.1958 and 9.9.1958, for holotype and isotype, respectively.

3. *Antidesma pradoshii* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 21(2): 479. 1997. (Euphorbiaceae)

Type: Sumatra, W. Paue, 4300 ft, 1881, *Forbes* 2451, acc. no. 407806 (holotype CAL); *Forbes* 2451, acc. no. 407807 (isotype CAL); Priman, s.d., *Diepenhorst* 2352 H Bog. (paratype CAL).

Note: Holotype, isotype and paratype are at CAL.

4. *Aporosa wallichii* Hook.f. var. *russellii* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 17(1): 170. 1993. (Euphorbiaceae)

Type: Myanmar, Tavoy, Heinze No. 1 camp, 1700 ft (c.500 m), 2.4.1921, *P.T. Russell* 1929 (holotype & isotype CAL).

Note: Holotype and isotype are at CAL.

5. *Archidendron globosum* (Blume) I.C.Nielsen var. *supra-axillare* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 15(2): 450. 1991. (Leguminosae)

Type: Myanmar, Mergui district, Paungdaw ridge, Western slopes, 2500 ft (750 m), 6 Jan. 1919, *C.G. Rogers* 319T (holotype CAL).

Note: Holotype is at CAL.

6. *Asparagus hajrae* Kamble, J. Econ. Taxon. Bot. 20(3): 687. 1996. (Asparagaceae)

Type: India, Assam (?), Khasia hills (?), May 1888, *J.C. Prazer s.n.*, acc. no. 479507 (holotype CAL).

Note: Holotype is at CAL. The name of the plant collector is J.C. Prazer not J.C. Prager as spelt in the protologue. The herbarium label has 'Flora of Burma' printed on it; locality given on sheet not distinctly legible and what is given in protologue (as Khasia hills) may not be correct.

7. *Azadirachta indica* A.Juss. subsp. *vartakii* Kothari, Londhe & N.P.Singh, Bull. Bot. Surv. India 39(1–4): 181. 2001 (1997 publ. 2001). (Meliaceae)

Type: India, Maharashtra, Amaravati district, Rani-Amaravati, 6th March, 1997, *Kothari* 173100A (holotype CAL); *Kothari* 173100B (isotype K); *Kothari* 173100C–E (isotypes BSI).

Note: Holotype and isotypes are at CAL and BSI, respectively.

8. *Baccaurea reniformis* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 19(2): 449. 1995. (Euphorbiaceae)

Type: Malaysia, Perak, Ulu Bubong, Jan. 1886, *King's collector* 10196 (holotype CAL).

Note: Holotype is at CAL.

9. *Baccaurea suvrae* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 18(2): 423. 1994. (Euphorbiaceae)

Type: Sumatra, W. Saeroelano, 1881, *Forbes* 3017, acc. no. 407655 (holotype CAL); *Forbes* 3017, acc. no. 407656 (isotype CAL); Lampongs, 29 July 1880, *Forbes* 1437 (paratype CAL); *sine loc., s.d., Forbes* 3139 (paratype CAL).

Note: Holotype, isotype and paratypes are at CAL.

10. *Baliospermum calycinum* Müll.Arg. var. *racemiferum* Bhujel & Yonzon, J. Econ. Taxon. Bot. 18(3): 613. 1995 (1994 publ. 1995). (Euphorbiaceae)

Type: India, West Bengal, Darjeeling district, *R.B. Bhujel* 342 (holotype CAL, isotype Kalimpong College Herbarium).

Note: Holotype is at CAL. The locality (Rungdung Valley Forest), the collector's name and date of collection (15th July 1992) given in the protologue are not on the sheet. However, the field number has been given.

11. *Calanthe keshabii* Lucksom, Indian J. Forest. 15(2): 136. 1992. (Orchidaceae)

Type: India, Sikkim, Chungthang valley, Shipgyer, 2000–2500 m, 1st May 1991, *Lucksom* 205a (holotype CAL); *Lucksom* 205b–d (isotypes Gangtok Forest Department Herbarium, Gangtok).

Note: Holotype is at CAL but with the field number given as “*Lucksom* 205”.

12. *Caldesia janaki-ammaliae* Guha & M.S.Mondal, J. Econ. Taxon. Bot. 27(Suppl.): 1102. 2003, ‘*janaki-ammalii*’. (Alismataceae)

Type: India, Lower Bengal, *Kurz s.n.*, acc. no. 499117 (holotype CAL), *Kurz s.n.* (isotype CAL).

Note: Holotype and isotypes are at CAL. In the protologue the acc. no. of the holotype has been given as 499117A instead of 499117 and here is no acc. no. in the isotype which has been given as 499117B.

13. *Callicarpa moldenkeana* A.Rajendran & P.Daniel, Candollea 48(1): 111. 1993, ‘*moldenkeiana*’. (Lamiaceae)

Type: India, Meghalaya, Punglong, 4.11.1938, *R.N. De* 18877 (holotype ASSAM); Meghalaya, Khasia & Jaintia hills, Punglong forest, 30.8.1935, *S.R. Sharma* 12154 (paratype ASSAM); Meghalaya, Khasia & Jaintia hills, Jarain to Nongthala, 25 km from Jarain on Dawki road, 900 m, 15.11.1968, *N.P. Balakrishnan* 49852 (paratype ASSAM).

Note: Holotype and paratypes are at ASSAM.

14. *Cheirostylis pabongensis* Lucksom, Indian J. Forest. 20(3): 305. 1997, as ‘*pabongnensis*’. (Orchidaceae)

Type: India, S. Sikkim, Pabong, 2000', 20th March 1996, *Lucksom* 210a (holotype CAL); *Lucksom* 210 b–d (isotypes Gangtok Forest Department Herbarium, Gangtok); *ibid.*, 24th March 1993, *Lucksom s.n.* (paratype Gangtok Forest Department Herbarium, Gangtok).

Note: Holotype is at CAL.

15. *Chisocheton nicobarianus* Debnath & Sreek., J. Econ. Taxon. Bot. 16(3): 553. 1992. (Meliaceae)

Type: India, South Nicobars, Great Nicobar Is., Laful forest, 18 May 1981, *R.P. Dwivedi* 8541A (holotype CAL); *R.P. Dwivedi* 8541B–D (isotypes PBL); Great Nicobar Is., 8 June 1981, *R.P. Dwivedi* 8758 (paratype PBL); 6 May 1981, *R.P. Dwivedi* 8522 (paratype PBL).

Note: Holotype is at CAL and isotypes and paratypes are at PBL.

16. *Cleome chelidonii* L.f. var. *pallae* C.S.Reddy & V.S.Raju, J. Econ. Taxon. Bot. 25(1): 217. 2001, ‘*pallai*’. (Capparaceae)

Type: India, Andhra Pradesh, Warangal district, Pakhal RF, 290 m, 8.8.1961, *K.M. Sebastine* 13106 (holotype MH); Pakhal RF, Pakhal lake margin, 10.12.1997, *C.S. Reddy & V.S. Raju* 876 (paratype Kakatiya Univ. Herbarium).

Note: Holotype is at MH, and isotype at MH was not cited in the protologue.

17. *Combretum wallichii* DC. var. *deciduum* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 17(3): 680. 1993. (Combretaceae)

Type: India, Assam, Mailonjdisa, 8.3.1901, *N. Gill* 192A (holotype CAL), *N. Gill* 192 (isotype CAL).

Note: Holotype and isotype are at CAL.

18. *Cryptocarya ferrarsi* King ex Hook.f. var. *macrocarpa* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 26(2): 478. 2002). (Lauraceae)

Type: Myanmar, Kachin hills, Sima, Dec. 1899, *Shaik Mokim* 79A (holotype CAL); *Shiak Mokim* 79 B–F (isotypes CAL).

Note: Holotype and isotypes are at CAL.

19. *Curcuma karnatakensis* Amalraj, Velay. & Mural., J. Econ. Taxon. Bot. 15(2): 490. 1991. (Zingiberaceae)

Type: India, Karnataka, Uttar Kannad district, near Hirahalli, 11.9.1990, *Amalraj* 807 [holotype MH, isotype National Herbarium (NHCP), NBPGR, New Delhi & Regional Station, Trichur].

Note: Holotype is at MH.

20. *Curcuma malabarica* Velay., Amalraj & Mural., J. Econ. Taxon. Bot. 14(1): 189. 1990.

(Zingiberaceae)

Type: India, Kerala, Trichur district, Pavaratty, 1.5.1988, AV 158 (holotype MH; isotype E, National Herbarium, NBPGR, New Delhi).

Note: Holotype is at MH.

21. *Curcuma thalakaveriensis* Velay., Amalraj & Mural., J. Econ. Taxon. Bot. 15(2): 479. 1991. (Zingiberaceae)

Type: India, Karnataka, Coorg district, Thalakavery, 9.5.1987, V. 3561 [holotype MH, isotype NHCP (NBPGR), New Delhi and Regional Station, Trichur].

Note: Holotype is at MH.

22. *Craniotome furcata* (Link) Kuntze var. *sikkimensis* D.Maity & Maiti[#], J. Econ. Taxon. Bot. 27(Suppl.): 1240. 2003. (Lamiaceae)

Type: India, Sikkim, Tholung to Namparik, 1800 m, 27 Sept. 2001, *D. Maity* 24244A (holotype CAL); *D. Maity* 24244B & C (isotypes BSHC).

Note: Isotypes are at BSHC.

23. *Craniotome furcata* (Link) Kuntze var. *urceolata* D.Maity & Maiti, J. Econ. Taxon. Bot. 27(Suppl.): 1242. 2003. (Lamiaceae)

Type: India, Sikkim, Gangtok, Hanumantop, 20 Nov. 1980, *P. Chakraborty* 826A (holotype BSHC); *P. Chakraborty* 826B & C (isotypes BSHC).

Note: Holotype and isotypes are at BSHC.

24. *Cryptocarya cavei* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 26(3): 725. 2002. (Lauraceae)

Type: India, Darjeeling district, Tista, 1 July 1914, *G.H. Cave s.n.*, acc. no. 383073 (holotype CAL); *G.H. Cave s.n.* (isotype CAL).

Note: Holotype and isotype are at CAL.

25. *Echinops rajasthanensis* R.P.Pandey & V.Singh[#], J. Econ. Taxon. Bot. 21(2): 467. 1997, '*rajasthanense*'. (Asteraceae)

Type: India, Rajasthan, Jalore district, Sunda hill, Jaswantpura, 640 m, 9th January 1978, *B.L. Vyas* 5248 (holotype CAL, isotype BSJO).

Note: Isotype is at BSJO.

26. *Edgaria darjeelingensis* C.B.Clarke var. *clarkeana* S.N.Biswas, J. Econ. Taxon. Bot. 18(1): 173. 1994, as '*clarkiana*'. (Cucurbitaceae)

Type: India, Darjeeling, 7000 ft, (2100 m), 9.9.1875, *J.S. Gamble* 3950c (male) [holotype CAL].

Note: Holotype is at CAL.

27. *Eleocharis lankana* T.Koyama subsp. *mohamadii* Wad.Khan, J. Econ. Taxon. Bot. 22(3): 560. 1999 (1998 publ. 1999). (Cyperaceae)

Type: India, near Kohlapur city, Kagal lake, *Wadood Khan* 4254a (holotype CAL); *Wadood Khan* 4254b–d (isotypes BSI).

Note: Holotype and isotypes are at CAL and BSI, respectively.

28. *Epilobium ladakhianum* T.K.Paul, Bull. Bot. Surv. India 39(1–4): 197. 2001 (1997 publ. 2001). (Onagraceae)

Type: India, Jammu and Kashmir, Ladakh, Ganglas-Khardung La, 8.8.1988, *Chowdhery & Uniyal* 86083 (holotype BSD); Jammu and Kashmir, Ladakh Panikhar, 30.7.1988, *Chowdhery & Uniyal* 85919 (paratype BSD).

Note: Both holotype and the paratype are traced at CAL and sent to BSD for deposition. Dr. S.K. Srivastava (BSD), after receiving our query on the types, could trace an isotype from the duplicate herbarium, got mounted and deposited at BSD.

29. *Eria sharmae* H.J.Chowdhery, G.S.Giri & G.D.Pal[#], Indian J. Forest. 16(1): 91. 1993. (Orchidaceae)

Type: India, Arunachal Pradesh, Lower Subansiri district, Itanagar, 450–500 m, 20.2.1992, *H.J. Chowdhery* 1726 (holotype CAL); *H.J. Chowdhery* 1726A (isotype ARUN).

Note: Isotype is at ARUN. A sheet at CAL is labeled as isotype.

30. *Erythrodes seshagiriana* A.N.Rao, Indian Forester 123(7): 643. 1997. (Orchidaceae)

Type: India, Arunachal Pradesh, Changlang district, Motijeel (Namdapha National Park), 20 March 1996, *A.N. Rao* 28269 (holotype CAL); *A.N. Rao* 28267 (paratype Orchid Herbarium, Tipi).

Note: Holotype is at CAL.

31. *Fimbristylis nagpurensis* V.P.Prasad & N.P.Singh, J. Econ. Taxon. Bot. 21(3): 671. 1998 (1997 publ. 1998). (Cyperaceae)

Type: India, Maharashtra, Nagpur district, Nagpur, College of Science premises, August 1961, *V.P. Donde* D10 (holotype CAL).

Note: Holotype is at CAL.

32. *Fimbristylis ratnagirica* V.P.Prasad & N.P.Singh, J. Econ. Taxon. Bot. 21(3): 673. 1998 (1997 publ. 1998). (Cyperaceae)

Type: India, Maharashtra, Ratnagiri district, Kasal, Osargaon plateau, August 18, 1971, *B.G. Kulkarni* 131758 (holotype CAL); *B.G. Kulkarni* 131758A (isotype BSI).

Note: Holotype and isotype are at CAL and BSI, respectively.

33. *Glochidion jarawae* Chakrab. & N.P.Balakr., J. Econ. Taxon. Bot. 26(3): 527. 2002. (Euphorbiaceae)

Type: India, Andaman and Nicobar Islands, South Andaman Island, Jarawa Reserve, Jaugona, behind the Jarawa hut, 7 Sept. 2002, *T. Chakrabarty* 4205 A (holotype CAL); *T. Chakrabarty* 4205 B–I (isotypes CAL).

Note: Holotype and isotypes are at CAL.

34. *Glochidion karnaticum* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 19(1): 211. 1995. (Euphorbiaceae)

Type: India, Karnataka, N. Kanara district, Aunlu, 10 Feb. 1889, *Talbot* 1856 (holotype CAL).

Note: Holotype is at CAL.

35. *Glochidion multiloculare* (Rottler ex Willd.) Voigt var. *pubescens* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 14(3): 720. 1990. (Euphorbiaceae)

Type: India, Sikkim, *s.loc.*, *Kurz s.n.*, acc. no. 403155 (holotype CAL); Assam, Orang-Barseola road and bank of Belsini river, 22 July 1958, *Panigrahi* 14234 (paratype CAL), Nowgaon district, *s.loc.*, *s.d.*, *G. Mann* 362 (paratype CAL); Nowgaon district, Lanka, 5 Nov. 1913, *Kanjilal* 2861 (paratype CAL).

Note: Holotype and paratypes are at CAL.

36. *Glochidion zeylanicum* (Gaertn.) A.Juss. var. *paucicarpum* Chakrab. & N.P.Balacr., J. Econ. Taxon. Bot. 28(1): 123. 2004. (Euphorbiaceae)

Type: India, Andaman and Nicobar Islands, Middle Andaman Island, Jarawa Reserve, ATR, 1 km before Dhani Nala, 17 Aug. 2002, *T. Chakrabarty* 19160A (holotype CAL); *T. Chakrabarty* 19160 B–E (isotypes CAL).

Note: Holotype and isotypes are at CAL.

37. *Grewia indandamanica* J.L.Ellis & L.N.Ray, Candollea 46(2): 341. 1991. (Tiliaceae)

Type: India, North Andamans, Saddle peak, 18.10.1987, *Ellis* ANC 12775A (holotype CAL); *Ellis* ANC 12775B–D (isotypes PBL).

Note: Holotype and isotypes are at CAL and PBL, respectively.

38. *Hippocratea ding-houi* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 14(1): 119. 1990. (Celastraceae)

Type: India, Katchal Is., *s.loc.*, 21 Feb. 1977, *P. Chakrabarty* 5280A (holotype CAL); *ibid.*, towards Kapanga, 22 April 1974, *P. Chakrabarty* 1158 (2 specimens) (paratypes CAL).

Note: Holotype and paratypes are at CAL.

39. *Hippocratea majumdarii* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 14(1): 122. 1990. (Celastraceae)

Type: India, Andaman Is., *s.loc.*, 1884, *King's collector* 346A (holotype CAL); *King's collector* 346B & C (isotypes CAL).

Note: Holotype and isotypes are at CAL.

40. *Hippocratea parkinsonii* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 14(1): 124. 1990. (Celastraceae)

Type: India, South Andaman Is., Manpur, 31 Oct. 1891, *King's coll. s.n.*, acc. no. 87213 (holotype CAL); *King's coll. s.n.*, acc. nos. 87212, 87214 (isotypes CAL).

Note: Holotype and isotypes are at CAL.

41. *Impatiens majumdarii* Ghara & Ghora, J. Econ. Taxon. Bot. 17(1): 139. 1993. (Balsaminaceae)

Type: India, Meghalaya, Shillong, Polo ground, 1525 m (5016 ft), 10 July 1976, *Majumdar & Ghara* 1A (holotype CAL); *Majumdar & Ghara* 1B–1E (isotypes CAL).

Note: Holotype and isotypes are at CAL.

42. *Ipomoea pes-caprae* (L.) R.Br. var. *perunkulamensis* P.Umam. & P.Daniel, J. Econ. Taxon. Bot. 23(3): 691. 1999. (Convolvulaceae)

Type: India, Tamilnadu, Ramanathapuram district, Perunkulam, on highway to Mandapam, 21.1.1994, *P. Daniel* 101473 (holotype CAL, isotype MH).

Note: Holotype and isotype are at CAL and MH, respectively.

43. *Lactuca pseudoumbrella* D.Maity & Maiti, J. Econ. Taxon. Bot. 25(3): 748. 2002 (2001 publ. 2002). (Asteraceae)

Type: India, Sikkim, Thangu to Muguthang, 31 July 1999, *Maiti & Sinha* 22485A (holotype CAL); *Maiti & Sinha* 22485B & C (isotypes BSHC).

Note: Holotype and isotypes are at CAL and BSHC, respectively. In the protologue the locality has been given as 'Muguthang' and the date of collection '31 Aug. 1991'.

44. *Lactuca pseudoumbrella* D.Maity & Maiti var. *chauhanii* D.Maity & Maiti, J. Econ. Taxon. Bot. 25(3): 750. 2002 (2001 publ. 2002). (Asteraceae)

Type: India, Sikkim, Kupup, 17 Sept. 1998, *G.P. Sinha & B.K. Shukla* 20455A (holotype CAL); *G.P. Sinha & B.K. Shukla* 20455B & C (isotypes BSHC); Kupup, near Beland chu lake, 13 Sept. 1985, *D.C.S. Raju* 4421 (paratype BSHC); Kupup, 20 Sept. 1986, *S.K. Rai* 7356 (paratype BSHC); Kupup, 17 Sept. 1998, *B.K. Shukla & A. Maiti* 18900 (paratype BSHC).

Note: Holotype is at CAL and isotypes and paratypes are at BSHC.

45. *Liparis dongchenii* Lucksom, Indian J. Forest. 23(1): 113. 2000. (Orchidaceae)

Type: India, Sikkim, Lingchey, 700–1500 m, 25th June 1995, *Lucksom* 316 (holotype CAL); *Lucksom* 316b–d (isotypes Gangtok Forest Department Herbarium, Gangtok).

Note: Holotype is at CAL.

46. *Macaranga balakrishnanii* B.Mitra & Chakrab., J. Econ. Taxon. Bot. 15(2): 465. 1991. (Euphorbiaceae)

Type: India, Sikkim, Sesama Reserve Forest, June 1985, *P. Basu* 8377 (holotype CAL).

Note: Holotype is at CAL.

47. *Microchites andamanicus* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 16(1): 42. 1992, 'andamanica'. (Apocynaceae)

Type: India, South Andaman Is., Anikhet, 24.12.1892, *King's coll. s.n.*, acc. no. 293056 (holotype CAL); *King's coll. s.n.*, acc. no. 293082 (isotype CAL); Salt factory, East coast, Sept. 1890, *King s.n.* (paratype CAL); Manpur, 25.12.1892, *King's coll. s.n.*, acc. no. 293072 (paratype CAL).

Note: Holotype, isotype and paratypes are at CAL.

48. *Microchites parkinsonii* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 16(1): 44. 1992. (Apocynaceae)

Type: India, South Andaman Is., Ferrargunj, 18.5.1974, *Thothathri & N.G. Nair* 1239 (holotype CAL, isotype PBL).

Note: Holotype and isotype are at CAL and PBL, respectively.

49. *Microlepidia brevistrigosa* A. Biswas[#], J. Econ. Taxon. Bot. 15(1): 38. 1991. (Dennstaedtiaceae)

Type: India, Meghalaya, Barapani, 6 July 1939, *G.K. Deka* 4568 (holotype ASSAM); Manipur, Tamenlong, 10.3.1984, *B. Ghosh* 16485a–c (paratypes CAL); Meghalaya, Khasi hills, *s.l.*, Feb. 1851, *s.coll., s.n.*, acc. no. 4183 (paratype CAL); Khasi hills, *s.l.*, Dec. 1851, *s.coll., s.n.*, acc. no. 4182 (paratype CAL).

Note: Paratypes are at CAL.

50. *Notothylas kashyapii* D.K.Singh, Indian J. Forest. 23(4): 386. 2000. (Notothylaceae)

Type: India, BSI campus, 192-Kaulagarh Road, Dehra Dun, *D.K. Singh* 401 (holotype BSD); *D.K. Singh* 419 (paratype BSD); campus of Van Vigyan Kendra, near Asan barrage, Dehra Dun, *D.K. Singh* 427 (paratype BSD).

Note: Holotype and paratypes are at BSD.

51. *Perotis indica* Schum. var. *keelakaraiensis* P.Umam. & P.Daniel, J. Econ. Taxon. Bot. 23(3): 691. 1999. (Poaceae)

Type: India, Tamilnadu, Ramanathapuram district, Keelakarai seacoast, 15.12.1995, *P. Daniel & P. Umamaheswari* 106547 (holotype CAL, isotype MH).

Note: Holotype and isotype are at CAL and MH, respectively.

52. *Phyllanthus pseudoparvifolius* R.L.Mitra & Sanjappa, Bull. Bot. Surv. India 45(1–4): 10. 2003. (Euphorbiaceae)

Type: India, Meghalaya, Khasi & Jaintia Hills, 31 mile Cherra Road, 5500 ft, 12 Oct. 1914, *U. Kanjilal* 4548 (holotype CAL).

Note: Holotype is at CAL.

53. *Piper pseudonigrum* Velay. & Amalraj, J. Econ. Taxon. Bot. 16(1): 247. 1992. (Piperaceae)

Type: India, Kerala, Palghat district, Silent Valley, 6.4.1988, AV 282 [holotype MH, isotype NBPGR Herbarium, New Dehli (NHCP)]; Silent Valley: AV 225, AV 274, AV 282, AV 301, AV 304, AV 313;

Parambikkulam: V 3468, V 3488, V 3474; Idukki: V 3703, V 3706; Pathanamthitta: V 3839; Coorg: V 3540, V 3554, V 3555; Upper Kodayar: V 4235 (paratypes NBPGR).

Note: Holotype is at MH but field number is AV 282 and not AV 202 as given in the protologue.

54. *Pothos keralensis* Pandur. & V.J.Nair, Indian J. Forest. 17(1): 64. 1994. (Araceae)

Type: India, Kerala, Idukki district, Meenmutty-Kulamavu, ± 700 m, 24.2.1983, A.G. Pandurangan 78069 (holotype MH).

Note: Holotype is at MH.

55. *Premna balakrishnanii* A.Rajendran & P.Daniel, Bull. Bot. Surv. India 34(1–4): 174. 1997 (1992 publ. 1997). (Verbenaceae)

Type: India, Tamilnadu, Tirunelveli district, Kalakkadu Wildlife Sanctuary, Sengaltheri to Kakkachi, river-side, 900 m, 2 Oct. 1987, A. Rajendran 86701 (holotype CAL, isotypes K, MH).

Note: Holotype and isotype are at CAL and MH, respectively.

56. *Primula nanocapitata* Balf.f. & W.W.Sm. ex S.K.Basak & Maiti, J. Econ. Taxon. Bot. 23(3): 699. 1999. (Primulaceae)

Type: India, Sikkim Himalaya, Chong-zoo, 3 km below Natoot on the Sikkim side, 29 Aug. 1882, G. King's collector s.n. A (holotype), G. King's collector s.n. B (isotype CAL).

Note: Holotype and isotype are at CAL.

57. *Pycnus kanarensis* V.P.Prasad & N.P.Singh, J. Econ. Taxon. Bot. 21(3): 667. 1998 (1997 publ. 1998). (Cyperaceae)

Type: India, Karnataka, Kanara (without exact locality), Nov. 1910, Chibber s.n., acc. no. 2521 (holotype CAL), Chibber s.n., acc. no. 2519 & 2520 (isotypes BSI).

Note: Holotype and isotype are at CAL and BSI, respectively.

58. *Riccia poihaiana* A.E.D. Daniels & P. Daniel[#], Bull. Bot. Surv. India 44(1–4): 135. 2003 (2002 publ. 2003). (Hepaticae: Marchantiales)

Type: India, Tamilnadu, Kanyakumari district, W. Ghats, 3 km from Aramboli towards west, eastern side of Poihai reservoir, c. 1 km from the dam, 150 m, 31.10.2001, P. Daniel 01 (holotype CAL, isotype MH); 5.11.2002, P. Daniel 06 (paratypes MH, Herbarium of Scott Christian College, Nagercoil).

Note: Daniels (*pers. comm.*, 2012) deposited all the types at MH in 2003 from where the holotype was to be forwarded to CAL. The authors cited in the protologue '*P. Daniel* 01 (Holotype CAL, Isotype MH)' but the packet contains *P. Daniel* 01 at MH has been labeled as type instead of labeling one packet as holotype and another as isotype. As a result of which no type material has been forwarded to CAL from MH. *P. Daniel* 06 was properly labeled as paratype is at MH.

59. *Rotala andamanensis* S.P. Mathew & Lakshmin., Bull. Bot. Surv. India 32(1–4): 189. 1992 (1990 publ. 1992) (Lythraceae)

Type: India, South Andaman Island, Wright Myo, 9.1.1974, N.P. Balakrishnan 761A (holotype CAL); 761B–E (isotypes PBL).

Note: Holotype and isotypes are at CAL and PBL, respectively. Dr. P. Lakshminarasimhan, one of the authors, deposited two more duplicates bearing the number 761 as isotypes at CAL and indicated accordingly in his own handwriting in the protologue attached with the holotype.

60. *Sauropus bishnupadae* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 20(3): 524. 1996. (Euphorbiaceae)

Type: India, Sikkim, Gulma, s.d., E.A. Modder 114 (holotype CAL).

Note: Holotype is at CAL.

61. *Sauropus gour-maitii* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 20(3): 529. 1996. (Euphorbiaceae)

Type: India, Kerala, Trivandrum district, way to Chamungi, 19.5.1979, *Mohanan* 61883 (holotype CAL); Travancore, Colatoorypolay, 28.11.1893, *Lawson* 108 (paratype CAL); Pamba to Ayyappan temple, 2.9.1977, *N.C. Nair* 50823 (paratype CAL); Idukki district, Churly, 13.11.1981, *V.S. Raju* 71238 (paratype CAL); Tamilnadu, Anamalai hills, *s.d.*, *Beddome* 124 (paratype CAL); Nilgiri hills, S.E. Wynaad, Devala, Nov. 1884, *Gamble* 15508 (paratype CAL); Tirunelveli district, 14.2.1913, *Hooper & Ramaswamy* 38604 (paratype CAL).

Note: Holotype and paratypes are at CAL.

62. *Sauropus po-khantii* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 20(3): 531. 1996. (Euphorbiaceae)

Type: Myanmar, Tenasserim, Mergui district, Chaegleya, 6.5.1932, *Maung Po Khant* 13451 (holotype CAL).

Note: Holotype is at CAL.

63. *Sauropus siamensis* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 19(2): 452. 1995. (Euphorbiaceae)

Note: It is a superfluous name as it was described based on the same type [Thailand, Doi sootep, 2200 ft (668 m), 4.8.1912, *Kerr* 2635 – CAL) as that of an earlier published legitimate name *Sauropus orbicularis* Craib [Bull. Misc. Inform. Kew 1914: 284. 1914].

64. *Spongiocarpella purpurea* (P.C.Li) Yakovlev var. *lhonakia* D.Maity & A.S.Chauhan, J. Econ. Taxon. Bot. 28(1): 71. 2004 (Leguminosae)

Type: India, North Sikkim, Lhonak Valley, 4000 m, 11 July 2000, *D. Maity* 21273A (holotype CAL); *D. Maity* 21273B (isotype BSHC); Phim la, 4500 m, 11 July 2000, *D. Maity* 21269 (paratype BSHC).

Note: Holotype is at CAL; both isotype and paratype are at BSHC.

65. *Streptopus chatterjeeanus* S.Dasgupta, Bull. Bot. Surv. India 44(1–4): 149. 2003 (2002 publ. 2003). (Uvulariaceae)

Type: India, E. Himalaya, Changu, 12310 ft, 13.7.1956, *D. Chatterjee's collector* 181 (holotype CAL).

Note: Holotype is at CAL.

66. *Tarenna trichurensis* Sasidh. & Sivar., J. Econ. Taxon. Bot. 14(1): 243. 1990. (Rubiaceae)

Type: India, Kerala, Trichur, 40 m, 21.3.1989, *Sasidharan* 4835 (holotype CALI, isotype K, MH); *Sasidharan* 5509 (paratype Herbarium, Kerala Forest Research Institute).

Note: Isotype is at MH.

67. *Terminalia sharmae* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 16(1): 237. 1992. (Combretaceae)

Type: India, Andaman and Nicobar Islands, South Andaman Is., Mount Harriet, 16 Jan. 1974, *N.G. Nair* 801 (holotype & isotype CAL).

Note: Holotype and isotype are at CAL.

68. *Terminalia vermae* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 16(1): 239. 1992. (Combretaceae)

Type: India, Andaman and Nicobar Islands, Baratang Is., South Creek, Extraction area, 30 Oct. 1979, *P. Basu* 7613 (holotype CAL).

Note: Holotype is at CAL.

69. *Thottea idukkiana* Pandur. & V.J.Nair, J. Econ. Taxon. Bot. 17(2): 465. 1993. (Aristolochiaceae)

Type: India, Kerala, Idukki district, Kanjiar, ± 800 m, 29.12.1983, *A.G. Pandurangan* 62571 (holotype CAL, isotype MH).

Note: Both holotype and isotype are at MH.

70. *Vernonia pothigaiana* Chellad. & Gopalan[#], J. Econ. Taxon. Bot. 25(2): 271. 2001. (Asteraceae)

Type: India, Tamilnadu, Tirunelveli district, Pothigaimalai, c. 1868 m, 6.2.1989, R. Gopalan 88741 [holotype CAL; R. Gopalan 88741, acc. nos. 163936–39 (isotypes MH); Pothigai peak, c. 1868 m, 14.5.77, V. Chelladurai 1633, acc. no. 163940 (paratype MH).

Note: Isotypes and paratypes are at MH.

71. *Winchia parkinsonii* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 16(1): 57. 1992. (Apocynaceae)

Type: India, South Andamans, Havelock Is., 24.2.1916, Parkinson 1035 (holotype CAL).

Note: Holotype is at CAL.

72. *Zehneria maysorensis* var. *oblonga* V.P.Prasad & M.Prasad, J. Econ. Taxon. Bot. 17(2): 471. 1993. (Cucurbitaceae)

Type: India, Kerala, Idukki district, lower camp to Kumily area, 26.12.1974, K. Vivekananthan 45710 (holotype MH); Tamilnadu, Pulneys, Kodaikanal Ghat, 1898, Bourne 946 (paratype MH).

Note: Holotype and paratype are at MH.

73. *Zeuxine assamica* I.Barua & K.Barua, J. Econ. Taxon. Bot. 21(2): 491. 1997. (Orchidaceae)

Type: India, Assam, Jorhat district, Jorhat (Charigaon), 86.80 m above MSL, 26.3.97, Iswar Barua 2357A (holotype CAL); Iswar Barua 2357B–H (isotypes ASSAM).

Note: Holotype and isotypes are at CAL and ASSAM, respectively.

74. *Zeuxine debrajiana* Sud.Chowdhury, Indian Forester 122(1): 87. 1996. (Orchidaceae)

Type: India, Assam, Sibsagar district (presently Golaghat district), in front of Botany Department of Debraj Roy College, Golaghat, (c 26°29' N and 93°56' E), c 30 m, 22.11.1974, S. Chowdhury 502 (holotype CAL).

Note: Holotype is at CAL.

2.2. Types Partly Deposited

1. *Alsophila gammiei* R.D.Dixit, Bull. Bot. Surv. India 34(1–4): 206. 1997 (1992 publ. 1997). (Cyatheaceae)

Type: India, Flora of the Sikkim Himalaya, Teesta, loc.?, 16.5.1881, G. King s.n., acc. no. 973 (holotype CAL); Flora of the Sikkim Himalaya, Rungjo, 2000 ft, 1886, Gammie s.n., acc. no. 1067 (paratype CAL).

Note: In the protologue the author has also cited the following materials under ‘Specimens examined’ and these are also to be accepted as paratypes.

Sikkim Himalaya, 1897, G. King s.n., acc. nos. 959, 970, 979, 1237 (CAL); 16.5.1881, Clarke s.n., acc. no. 976 (CAL); loc.?, date?, Coll.?, acc. no. 1235 (CAL); Rungjo, 2000 ft, 3.3.1886, Gammie s.n., acc. nos. 1058, 1179, 1181, 1182, 1183, 1184; Rungjo, 2000 ft, 4.3.1886, Gammie 1051, 1055, 1056, 1057, 1059, 1060, 1062, 1064, 1065, 1066, 1068, 1193 (CAL). West Bengal, Loc.?, Teesta valley, 16.5.1881, G.King s.n., acc. nos. 969, 971, 974, 975, 977, 978 (CAL); Loc.?, Teesta valley, 16.5.1881, G.King s.n., acc. nos. 961, 962 (CAL).

Indo–Russian Exped: Sukna, 15.4.1961, Coll.?, 16624 (CAL – 5 specimens); Panttung s.n., acc. nos. 964, 966. Western Duars, Apalchang Residence, Dec. 1879, Gamble 7602 (CAL); Jalpaiguri – Gorumara Rd., Lutaguri, 1.6.1949. Narayanswami 3134 (CAL – 2 specimens).

Meghalaya, Khasia, 5000 ft, J.D.H. & T.T. s.n., acc. no. 986 (CAL – leftside specimen); Oldham s.n., acc. no. 1070; Oldham 8 (CAL). Assam, Barapani Rd., 11.9.1970, A.S.Rao 38676 (ASSAM, CAL); G. R. Toad, beyond Umsawo, A.S.Rao 12850 (ASSAM, CAL); Nongpoh, 28.6.1964, A.S. Rao 39167 (ASSAM, CAL); Upper Shillong, 8.9.1959, Panigrahi 18807 (ASSAM); Dulong Reserve forest, 10.3.1962, Panigrahi 27676 (ASSAM, CAL); Barnihat, 14.11.1956, Panigrahi 4335 (ASSAM); Kamrup, 13.8.1964, Rao 38809 (ASSAM).

Arunachal Pradesh, Duphla hills, 10,000 ft, 21.12.1887, *Lister s.n.*, acc. nos. 980, 1006 (acronym of the herbarium not given). *Photograph examined*: Sikkim, Rungjo, 2000 ft, 4.3.1886, *Gammie s.n.* (BSA – obtained from Kew).

Holotype and the paratype are at CAL. The sheet bearing acc. no. 973 at CAL was labeled by the author as ‘Holotypetypus’. There is an error in the reported date of collection in the protologue which is given as 16.5.1981 instead of 16.5.1881 as well as in the name of the collector which should have been ‘G. King’ instead of ‘King’s collector’. The herbarium sheets with acc. nos. 969, 971, 974, 975, 977, 978 at CAL cited under specimens examined are in fact isotypes and not paratypes because they bear the same field data as that of the holotype. For these collections the author has cited the locality as West Bengal, Teesta valley, Darjeeling. The same locality which the author has given as ‘Darjeeling’ is written on the holotype as well. In spite of this the author states the holotype to be from Sikkim and the specimens with aforementioned acc. nos. from West Bengal. In fact the locality recorded on the sheets is not legible and unlikely to be Darjeeling. The label on all the sheets has ‘Flora of the Sikkim Himalaya’ printed on it. The specimen which has been cited under SIKKIM HIMALAYA as ‘16.5.1881, *Clarke s.n.*, acc. no. 976 (CAL)’ is also an isotype collected by G. King and not by C.B. Clarke on 16.5.1881, wrongly implied by the author based on annotation ‘*Als. glabra* Hook’ fide C.B. Clarke’ on the sheet.

The specimen cited by the author ‘Sikkim: Rungjo, 2000 ft, 4-3-1886, *Gammie s.n.* Accession No. 1067’ as paratype has also been wrongly annotated by the author as ‘HOLOTYPUS’. There is a discrepancy in the date which in actuality is 1886 and not as ‘4.3.1886’.

The isotypes and some other paratypes (Rungjo, 2000 ft, 4.3.1886, *Gammie s.n.*, 1051, 1059, 1064, 1065, 1066, 1068; Rungjo, 2000 ft, 3.3.1886, *Gammie s.n.*, acc. nos. 1179, 1181, 1182, 1183; 1879 (printed date), *G. King s.n.*, acc. nos. 961, 962, 970, 979; *Lister s.n.*, acc. no. 980; *Coll.?*, acc. no. 1235 (CAL) and *Narayanswami* 3134 (CAL – 2 specimens) found in the general herbarium at CAL were shifted to the cupboard meant for types in Cryptogamy Section after duly annotating them. This species has been treated as a synonym of ‘*Cyathea gigantea*’ by B.S. Kholia and C.R. Fraser-Jenkins, as evident from their annotations on some relevant sheets at CAL.

2. *Antidesma bhargavae* Chakrab. & N.P. Balakr., J. Econ. Taxon. Bot. 26(3): 524. 2002. (Euphorbiaceae)

Type: India, Andaman and Nicobar Islands, South Andaman Island, Poona Nallah, 24 July 1976, *N. Bhargava* 4215A (holotype CAL); *N. Bhargava* 4215B & C (isotypes CAL, PBL); Dundas Point, 9 June 1973, *Balakrishnan* 237 (paratypes CAL, PBL).

Note: Holotype, isotype and paratype are at CAL but isotype and paratype could not be traced at PBL.

3. *Antidesma keralense* Chakrab. & M. Gangop.*, J. Econ. Taxon. Bot. 24(1): 23. 2000. (Euphorbiaceae)

Type: India, Kerala, Trivandrum district, way to Chemungi, 19 May 1979, *M. Mohanan* 61834 (holotype CAL, isotype MH).

Note: Isotype is at MH.

4. *Astragalus drasianus* H.J. Chowdhery, Uniyal & Balodi*, Bull. Bot. Surv. India 34(1–4): 209. 1997 (1992 publ. 1997). (Leguminosae).

Type: India, Jammu and Kashmir, Ladakh district, ad locum Dras, August 1988, *H.J. Chowdhery & B.P. Uniyal* 85804A (holotype CAL), *H.J. Chowdhery & B.P. Uniyal* 85804B isotype BSD).

Note: The cited isotype could not be traced at BSD. However, Dr. S.K. Srivastava (NRC) has retrieved one duplicate of 85804, got mounted and deposited at BSD as 85804B. In actuality, this is not the original 85804B, which the authors had designated.

5. *Baccaurea airyshawii* Chakrab. & M. Gangop.*, J. Econ. Taxon. Bot. 18(2): 419. 1994. (Euphorbiaceae)

Type: Malay Peninsula, Perak, Larut, Sept. 1882, *Kunstler* 1408 (holotype CAL); *ibid.*, Jan. 1883, *Kunstler* 3717 (paratype CAL).

Note: Paratype is at CAL.

6. *Baccaurea bhaswatii* Chakrab. & Gangop.*, J. Econ. Taxon. Bot. 18(2): 420. 1994. (Euphorbiaceae)

Type: Sumatra, Lampongs, 30 Aug. 1880, *Forbes* 1653, acc. no. 407625 (holotype CAL); *Forbes* 1653, acc. no. 407624 (isotype CAL).

Note: Isotype is at CAL.

7. *Chilocarpus denudatus* Blume var. *nicobaricus* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 16(1): 37. 1992. (Apocynaceae)

Type: India, Great Nicobar Is., 41 km on East-West road, 12.2.1980, *Dwivedi* 7868 (holotype CAL, isotype PBL); 40 km on East-West road, 26.9.1980, *Hore* 8219 (paratypes CAL, PBL).

Note: Holotype is at CAL but isotype and paratype could not be traced at PBL.

8. *Clerodendrum nicolsonii* A.Rajendran & P.Daniel, Candollea 48(2): 347. 1993. (Lamiaceae)

Type: India, Assam, North Lakhimpur, Deomukh Reserve Forest, 16.5.1966, *D.M. Verma* 46361 (holotype ASSAM); North Lakhimpur, 23.5.1966, *D.M. Verma* 46654 (paratype ASSAM); Deomukh, 13.11.1978, *G.D. Pal* 70238 (paratype ARUN).

Note: Holotype and paratype are at ASSAM; the other paratype could not be traced at ARUN.

9. *Cnestis palala* Merr. var. *brevistylis* M.S.Mondal, J. Econ. Taxon. Bot. 15(2): 493. 1991. (Connaraceae)

Type: India, Andaman and Nicobar Islands, South Andaman, Port Monat Hill jungle, 26.11.1892, *King's collector s.n.*, acc. no. 101073 (holotype CAL); *King's collector s.n.*, acc. no. 101072 (isotype CAL); Anikhet Hill jungle, 17.2.1894, *King's collector s.n.*, acc. no. 101067 (paratype CAL); Dhani Khari Hill jungle, 19.11.1892, *King's Coll. s.n.* (paratype CAL); Numuna Ghar Hill jungle, 13.12.1890, *King's Coll. s.n.* (paratype CAL); Corbyns Cave (North), 13.2.1892, *King's Coll. s.n.* (paratype CAL, acc. no. 101071); Andaman, Mt. Havrich, 26.12.1915, *C.E. Parkinson* 821 (paratype CAL).

Note: Holotype and isotype are at CAL. Paratypes could not be traced at CAL.

10. *Coelogyne pempahisheyana* H.J.Chowdhery, Indian J. Forest. 27(1): 121. 2004. (Orchidaceae)

Type: India, West Bengal, Darjeeling district, Kalimpong sub-division, Holumb estate, 1300 m, 27.3.2004, *H.J. Chowdhery* 32598 (holotype & isotype CAL).

Note: There are two sheets labeled as holotype at CAL, bearing same field no., i.e., *H.J. Chowdhery* 32598, one undisturbed with flower and the other has flower dissected and pasted in a paper packet. Isotype could not be traced at CAL.

11. *Connarus andamanicus* M.S.Mondal, J. Econ. Taxon. Bot. 15(2): 459. 1991. (Connaraceae)

Type: India, Andaman and Nicobar Islands, Great Nicobar Island, Koshin Don, 5.2.1980, *R.P. Dwivedi* 7822A (holotype CAL); *R.P. Dwivedi* 7822 (isotype PBL).

Note: Holotype is at CAL but the cited isotype could not be traced at PBL.

12. *Combretum sanjappae* Chakrab. & Lakra, J. Econ. Taxon. Bot. 26(2): 502. 2002. (Combretaceae)

Type: India, Andaman and Nicobar Islands, North Andaman Island, Burmachad, Hiran Nala, 25 Sept. 1996, *G.S. Lakra* 15080A (holotype CAL); *G.S. Lakra* 15080B & C (isotypes CAL); *G.S. Lakra* 15080D (isotype PBL); way to Kalpong base camp 3, 30 Dec. 1986, *G. Chakraborty* & *G.S. Lakra* 12655 (paratypes CAL, PBL).

Note: Holotype, isotypes and paratype are at CAL but the isotype and paratype could not be traced at PBL.

13. *Cryptocarya balakrishnanii* M.Gangop. & Chakrab., J. Econ. Taxon. Bot. 26(3): 722. 2002. (Lauraceae)

Type: India, Andaman and Nicobar Islands, South Andaman Island, Manglutan, 31 March 1894, *King's collector s.n.*, acc. no. 382969 (holotype CAL); *ibid.*, *King's collector s.n.*, acc. no. 382968

(isotype CAL); Port Mouat, 11 March 1893, *King's collector s.n.* (paratype CAL); *ibid.*, 18 March 1893, *King's collector s.n.* (paratype CAL).

Note: Holotype and isotype are at CAL but paratypes could not be traced at CAL.

14. *Cryptocarya praetervis* M.Gangop., Chakrab. & A.S.Chauhan, J. Econ. Taxon. Bot. 26(2): 472. 2002. (Lauraceae)

Type: India, Tamilnadu, Pulney hills, Periya Shola, June 1897, *Bourne* 461, acc. no 383155 (holotype CAL); *ibid.*, Tiger Shola, 23 July 1912, *Munich* 31 (paratype CAL).

Note: Holotype is at CAL but paratype could not be traced at CAL.

15. *Diospyros pilosula* (A.DC.) Wall. ex Hiern var. *andamanensis* Jayar. & M.P.Nayar, Bull. Bot. Surv. India 34(1–4): 180. 1997 (1992 publ. 1997). (Ebenaceae)

Type: India, Middle Andaman, Jirkatang, 16.8.1976, *N. Bhargava* & *P. Chakraborty* 3771 (holotype PBL); Andaman Islands, Middle Andamans, Long Island, 28.8.1975, *N. Bhargava* 2827 (paratype PBL); South Andaman, *Kurz s.n.*, acc. nos. 281921, 281922, 281924 (paratypes CAL); Imanganj hill jungle, 7.5.1892, *King's collector s.n.*, acc. no. 281925 (paratype CAL); Dhandikhari hill jungle, 24.6.1893, *King's collector s.n.*, acc. no. 281889 (paratype CAL); Jusonabad, 2.9.1893, *King's collector s.n.*, acc.no. 281888 (paratype CAL).

Note: Holotype and paratype are at PBL. The collections of *Kurz s.n.* were found in the general herbarium and now shifted to the Type Section at CAL. The nos. 281921, 281922, 281924 associated with *Kurz* and the nos. 281888 and 281889 given with *King's collector* are in fact CAL herb. acc. nos. and not field numbers as given in the protologue. The last two paratypes could not be traced at CAL.

16. *Drypetes ellisii* S.P.Mathew & Chakrab., J. Econ. Taxon. Bot. 14(3): 623. 1990. (Euphorbiaceae)

Type: India, South Andaman Is., Mount Harriet, ± 200 m, 17.5.1990, *Mathew* 20279A (holotype CAL, isotype PBL).

Note: Holotype is at CAL but isotype could not be traced at PBL.

17. *Eclipta prostrata* L. var. *dixitii* An.Kumar & K.K.Khanna, J. Econ. Taxon. Bot. 23(3): 713. 1999. (Asteraceae)

Type: India, Madhya Pradesh, Betul district, Atner, ca 600 m above msl, 16.4.1997, *Anand Kumar* 50015A (holotype CAL); *Anand Kumar* 50015B & C (isotypes BSI).

Note: Holotype is at CAL but isotypes could not be traced at BSI.

18. *Glochidion zeylanicum* (Gaertn.) A.Juss. var. *arunachalense* Chakrab. & M.Gangop., J. Econ. Taxon. Bot. 19(1): 229. 1995. (Euphorbiaceae)

Type: India, Arunachal Pradesh, Kameng dist., Rahung rest house, towards stream, 14 May 1957, *R.S. Rao* 7507 (holotype CAL, isotype ASSAM).

Note: Holotype is at CAL but isotype could not be traced at ASSAM.

19. *Goniothalamus macranthus* (Kurz) Boerl. var. *brevipetalus* Debika Mitra, Bull. Bot. Surv. India 35(1–4): 117. 1997 (1993 publ. 1997). (Annonaceae)

Type: India, S. Andaman, Manganj hill jungle, 7.5.1892, *King's collector s.n.* (holotype CAL); Indian Botanic Garden, Howrah, 1904, *D. Prain s.n.* (paratype CAL); March 1993, *D. Mitra* 436, 437 (paratype CAL).

Note: Holotype is at CAL but the paratypes could not be traced. However, there is a specimen in the general herbarium with label data: Hab. Andamans – fls in H.B.C., July–August 1904, *D. Prain s.n.*, acc. no. 12881. It also bears a *determinavit* slip affixed by the author on 2.3.1976 and bears the name *Goniothalamus macranthus* (Kurz) Boerl. var. *brevipetalus* D. Mitra. This appears to be one of the paratypes.

20. *Kyllinga eglandulosa* Govind. & K.Ramani*, J. Econ. Taxon. Bot. 18(2): 335. 1994. (Cyperaceae)

Type: India, Karnataka, Bababudan hills, *Govindarajalu* 8726 (holotype CAL, isotype MH); Karnataka, Bababudan hills, *Govindarajalu* 8595 (paratype BLAT); *ibid.*, *Govindarajalu* 8621 (paratype BSI).

Note: Isotype is at MH but paratype could not be traced at BSI.

21. *Kyllinga pluristaminea* Govind. & K.Ramani*, J. Econ. Taxon. Bot. 18(2): 336. 1994. (Cyperaceae)

Type: India, Tamilnadu, Madurai district, High Wavy Mts., Thuvanam, *Govindarajalu* C 239 (holotype CAL, isotypes MH, BSI).

Note: One isotype is at MH but the other one could not be traced at BSI.

22. *Loxogramme avalanchia* R.D.Dixit & Silpi Das, Bull. Bot. Surv. India 35(1–4): 134. 1997 (1993 publ. 1997). (Polypodiaceae)

Type: India, South India, Nilgiri hills, Avalanche, Nov. 1883, *Coll.?*, acc. no. 59932 (holotype MH); Nilgiri, Naduvattam, 2000 m, 25.7.1960, *K. Subramanyam* 10581 (paratypes MH, CAL).

Note: Both holotype and paratype could be traced at CAL. The holotype was sent to MH and the paratype has been shifted to Cryptogamic Section at CAL. The other paratype could not be located at MH. The locality was spelt 'Avalanchia' in the protologue.

23. *Loxogramme manipurensis* Silpi Das & R.D.Dixit, Bull. Bot. Surv. India 38(1–4): 80. 2001 (1996 publ. 2001). (Polypodiaceae)

Type: India, Manipur, Tamelong, 1050 m, 19.3.1985, *B. Ghosh* 59271 (CAL).

Note: Though the authors under '*Specimens examined*' cited *B. Ghosh* 59271 (CAL, 5 sheets) only three specimens could be traced in the herbarium of the Cryptogamic Section, CAL. The authors have not labeled any of these as holotype. This is further confirmed by one of the authors, Silpi Das (*pers. comm.*, 2012), that they have not labeled any specimen as holotype. All of them can be considered as the holotype if they can be justified as a single specimen mounted on 5 sheets.

24. *Memecylon gopalanii* Murugan & Manickam, J. Econ. Taxon. Bot. 25(3): 509. 2002 (2001 publ. 2002). (Melastomataceae)

Type: India, Tamilnadu, Tirunelveli district, Papanasam, 29.4.1990, *Gopalan* 93317 (holotype MH, isotypes CAL & XCH); Tamilnadu, Tirunelveli district, Papanasam, 22.5.1998, *Gopalan* 88632 (paratype of herbarium not mentioned).

Note: Holotype, isotype and paratype (*Gopalan* 88632) are at MH but the isotype could not be traced at CAL.

25. *Miliusa mukerjeeana* Debika Mitra & Chakr., Bull. Bot. Surv. India 33(1–4): 326. 1994 (1991 publ. 1994). (Annonaceae)

Type: India, S. Andaman Island, Alimusjid Hill Jungle, 14 Oct. 1895, *King's collector s.n.* (holotype & isotype CAL); South Andaman Islands, Rangachang hill jungle, 10.7.1895, *Dr. King's Collector s.n.*; Herb. Hort. Bot. Cal., 1.7.1892, *R.L. Proudlock* 11; Herb. Hort. Bot. Cal. Andaman group, 21 April, 1894, *s. coll. s.n.*; Ind. Bot. Gdn., 21 Nov. 1963, *D. Das* 10. Nicobar Islands, Car Nicobar, 1 March 1974, *N.G. Nair* 903; Katchal, 22 April 1976, *P. Chakraborty* 1142 (all paratypes deposited at CAL & PBL).

Note: Holotype and five isotypes are at CAL. We have traced out the paratypes: *Dr. King's Collector s.n.* (3 specimens); *s. coll. s.n.* (5 specimens); *R.L. Proudlock* 11 and *D. Das* 10 from the general herbarium of CAL and all of them have been deposited in the Type Section. The paratypes: *N.G. Nair* 903 and *P. Chakraborty* 1142 are at PBL but could not be located at CAL. The type citation in the protologue 'all paratypes deposited in CAL & PBL' probably infers that these paratypes are either at CAL or PBL as some of them are found at CAL and some at PBL. These should have been specified.

26. *Mucuna pruriens* (L.) DC. var. *thekkadiensis* Thoth. & S.Ravik., J. Econ. Taxon. Bot. 21(3): 703. 1998 (1997 publ. 1998). (Leguminosae)

Type: India, Kerala, Periyar Tiger Reserve, Thekkady forest, 23.2.1996, *Ravikumar & Muralidharan* 334A (holotype MH); *Ravikumar & Muralidharan* 334B (isotypes Madras University Herbarium, CAL).

Note: Holotype is at MH but the isotype could not be traced at CAL.

27. *Piper haridasanii* Gajurel, Rethy & Y.Kumar, J. Econ. Taxon. Bot. 25(2): 293. 2001. (Piperaceae)

'Type': India, North East India, Arunachal Pradesh, Durpang Reserve forest, 27°6' N latitude and 93°49' E longitude, Pathali Pahar, 300 m, nearly 2 km north from Range office, 31.5.1998, *Padmaraj Gajurel* 84 (female); Nirjuli forest opposite to NERIST campus, 8.10.97, *Padmaraj Gajurel* 32 (male). (holotype: CAL, isotype ASSAM, APFH – Arunachal Pradesh Forest Herbarium).

Note: The name is not validly published because the authors annotated two different gatherings (*Padmaraj Gajurel* 84; *Padmaraj Gajurel* 32) as holotype. Two specimens of *Padmaraj Gajurel* 84 and both of them annotated as holotype by the authors are at CAL. *Padmaraj Gajurel* 32 could not be traced at CAL. *Padmaraj Gajurel* 84 and *Padmaraj Gajurel* 32 could not be traced at ASSAM.

28. *Premna debiana* A.Rajendran & P.Daniel, Bull. Bot. Surv. India 34(1–4): 177. 1997 (1992 publ. 1997). (Verbenaceae)

Type: India, Arunachal Pradesh, Tirap F.D., Pungchow, 8.7.1961, *D.B. Deb* 26608 (holotype CAL, isotype ASSAM); Arunachal Pradesh, Tirap F.D., Pungchow to Niauxa, 10.7.1961, *D.B. Deb* 26651 (paratype ASSAM).

Note: Holotype is at CAL but isotype (*D.B. Deb* 26608) and paratype (*D.B. Deb* 26651) could not be traced at ASSAM. One more specimen [Tirap F.D. (N.E.F.A.), Pungchow, 8.7.1961, *Deb* 26630] at ASSAM labeled as paratype by one of the authors (A. Rajendran) was not found mentioned in the protologue.

29. *Riccia velimalaiana* A.E.D. Daniels & P. Daniel[#], Bull. Bot. Surv. India 44(1–4): 139. 2003 (2002 publ. 2003). (Hepaticae: Marchantiales).

Type: India, Tamilnadu, Kanyakumari district, W. Ghats, Velimalai, 450 m, *A.E.D. Daniels* 921 (holotype CAL, isotypes MH, Herbarium of Scott Christian College, Nagercoil); 19.8.2000, *A.E.D. Daniels* 976, 977, 988 (paratypes MH, Herbarium of Scott Christian College, Nagercoil).

Note: As in the case of *R. poihaiana* the authors labeled the packet as type instead of separating and specifying holotype and isotype distinctly. *A.E.D. Daniels* 977 properly labeled as paratype is at MH. The other paratypes, however, could not be located at MH.

30. *Rivina bengalensis* S.C.Srivast. & T.K.Paul, Indian J. Forest. 26(4): 357. 2003. (Phytolaccaceae)

Type: India, West Bengal, Andul Road adjacent to Indian Botanic Garden, Howrah, 8.10.2001, *T.K. Paul* & *S.C. Srivastava* 28183A (holotype CAL); 28183B–D (isotypes CAL).

Note: Holotype is at CAL; only one of the three isotypes, *T.K. Paul* & *S.C. Srivastava* 28183B is at CAL.

31. *Scleria poklei* Wad.Khan, J. Econ. Taxon. Bot. 22(3): 559. 1999 (1998 publ. 1999), '*poklii*' (Cyperaceae)

Type: India, Maharashtra, Gadchiroli district, Laheri road, *Wadood Khan* 4703a (holotype CAL); *Wadood Khan* 4703b–d (isotypes BSI).

Note: Holotype is at CAL but the isotypes could not be traced at BSI.

32. *Sonerila arunachalensis* G.S.Giri, A.Pramanik & H.J.Chowdhery[#], Indian J. Forest. 15(1): 95. 1992. (Melastomataceae)

Type: India, Arunachal Pradesh, Dibang Valley district, Mahao Sanctuary, 1500 m, 15.9.1990, *A. Pramanik* 5438 (holotype CAL, isotype ARUN); Waka, 27.8.1958, *Panigrahi* 14973 (paratype CAL)

Note: Two isotypes are at ARUN but the paratype could not be traced at CAL.

33. *Trichodesma indicum* (L.) Sm. var. *betulense* K.K.Khanna & An.Kumar*, Indian J. Forest. 24(2): 226. 2001. (Boraginaceae)

Type: India, Madhya Pradesh, Betul district, Ranipur, 21.4.1997, *Anand Kumar* 50178A (holotype CAL); *Anand Kumar* 50178B (isotype BSA).

Note: Isotype is at BSA.

34. *Trigonella emodi* Benth. var. *oblongifolia* Balodi & R.R. Rao*, J. Econ. Taxon. Bot. 15(1): 188. 1991. (Fabaceae)

Type: India, Uttar Pradesh, Garhwal, near Ghorpatta, 2800 m, 23.8.1963, *U.C. Bhattacharyya* 29675A (holotype CAL); *U.C. Bhattacharyya* 296758 (paratype, BSD).

Note: Paratype is at BSD. In the protologue *U.C. Bhattacharyya* 296758 has been cited as isotype.

2.3. Types not Deposited/Could not be Traced

1. *Adinandra colletiana* T.K.Paul, Bull. Bot. Surv. India 35(1–4): 126. 1997 (1993 publ. 1997). (Theaceae)

Type: Myanmar, Tenasserim, Jaepo, 5000' (1520 m), 17.4.1877, *George Gallatly* 829A (holotype CAL); *George Gallatly* 829B–F (isotypes CAL).

Note: Isotypes could not be traced at CAL.

2. *Amomum deorianum* D.P.Dam & N.Dam*, Bull. Bot. Surv. India 34(1–4): 212. 1997 (1992 publ. 1997). (Zingiberaceae)

Type: India, Meghalaya, Jaintia hills, East of Dawki, 22.4.1972, *N.C. Deori* 51696 (holotype CAL, isotype ASSAM); Meghalaya, Jaintia hills, East of Dawki, 3.7.1973, *N.C. Deori* & *D.P. Dam* 51766 (paratype ASSAM).

Note: Isotype and paratype could not be traced at ASSAM.

3. *Bambusa assamica* Barooah & Borthakur*, Indian J. Forest. 24(4): 503. 2002 (2001 publ. 2002). (Poaceae)

Type: India, Assam, Morigaon, Amsoi, 8th February 1997, *C. Barooah* 2520 (holotype ASSAM); Kamrup, Baihata Chariali, Alipub, 17th August 1997, *C. Barooah* 2562 (paratype CAL); Morigaon, Hatigarh R.F., 8th February 1997, *C. Barooah* 2521 (paratype Gauhati University Herbarium, Guwahati).

Note: Paratype could not be traced at CAL.

4. *Bambusa barpatharica* Borthakur & Barooah*, Indian J. Forest. 24(4): 505. 2002 (2001 publ. 2002). (Poaceae)

Type: India, Assam, Lakhimpur, Barpathar No. 1, 18th August 1996, *C. Barooah* 2508A (holotype ASSAM); *C. Barooah* 2508B (isotype CAL); *C. Barooah* 2508C (isotype Gauhati University Herbarium, Guwahati).

Note: Isotype could not be traced at CAL.

5. *Bambusa garuchokua* Barooah & Borthakur*, Indian J. Forest. 24(4): 506. 2002 (2001 publ. 2002). (Poaceae)

Type: India, Assam, Lakhimpur, Barpathar No. 1, 7th July 1996, *C. Barooah* 2505 (holotype ASSAM); Nalbari, Bor Azara, 8th March 1997, *C. Barooah* 2532 (paratype CAL); Dhubri, Chapor, 3rd March 1998, *C. Barooah* 2567 (paratype Gauhati University Herbarium, Guwahati).

Note: Paratype could not be traced at CAL.

6. *Bambusa rangaensis* Borthakur & Barooah*, Indian J. Forest. 24(4): 508. 2002 (2001 publ. 2002) (Poaceae)

Type: India, Assam, Lakimpur, Ranga R.F., 18th August 1996, *C. Barooah* 2512A (holotype ASSAM); *C. Barooah* 2512B & C (isotypes CAL); *C. Barooah* 2512D (isotype Gauhati University Herbarium, Guwahati).

Note: Isotypes could not be traced at CAL.

7. *Biophytum congestiflorum* Govind.*, J. Econ. Taxon. Bot. 20(2): 311. 1996. (Oxalidaceae)

Type: South India, W. Ghats, Kerala, Peermede, Azhudha, *Govindarajalu* 5597 (holotype CAL); *Govindarajalu* 6597A (isotype MH); *Govindarajalu* 6597B (isotype DD); *Govindarajalu* 6597C (isotype BSI); *Govindarajalu* 6597D (isotype BLAT); *Govindarajalu* 6597 E–I (isotypes PCM).

Note: The field number of holotype cited in the protologue is 5597 but in all likelihood it might be 6597, and the series of which A–I are designated isotypes. The isotypes could not be traced at BSI and MH.

8. *Biophytum longipedunculatum* Govind.*, J. Econ. Taxon. Bot. 20(2): 312. 1996. (Oxalidaceae)

Type: India, Kerala, Chalakudi Division, Anakayam, *Govindarajalu* 2955 (holotype CAL, isotype MH); Poringalkuthu Division, Orukomban, *Govindarajalu* 2713A (paratype MH); *Govindarajalu* 2713B (paratype BLAT); *Govindarajalu* 2713C (paratype BSI); *ibid.*, *Shanthi* 333, *Alamelu* 373 (paratypes PCM).

Note: Isotype at MH and paratypes could not be traced at BSI and MH.

9. *Biophytum reinwardtii* (Zucc.) Klotzsch var. *keralanum* E.S.S.Kumar, Yeragi, K.N.Babu & A.E.S.Khan, J. Econ. Taxon. Bot. 25(3): 745. 2002 (2001 publ. 2002). (Oxalidaceae)

Type: India, Kerala, Kottayam district, Pampavalley, *Santhosh Kumar* 45859 (holotype TGBT, isotype MH); Idukky district, Walara, *Shanavas Khan* 12823 (paratype TBGT); Thiruvananthapuram district, Keezhettikavu, Pongumoodu, *Santhosh Kumar* 44476 (paratype TGBT).

Note: Isotype could not be traced at MH.

10. *Carex thanikaimoniana* Govind.*, J. Econ. Taxon. Bot. 20(2): 305. 1996. (Cyperaceae)

Type: India, Tamilnadu, Madurai district, Kodaikanal, *Thanikaimoni* 7082 (holotype CAL); *Thanikaimoni* 7082A (isotype BSI); *Thanikaimoni* 7082B (isotype BLAT); *Thanikaimoni* 7082C (isotype DD); *Thanikaimoni* 7082D (isotype MH).

Note: Isotypes could not be traced at BSI and MH.

11. *Cinnamomum assamicum* S.C.Nath & Baruah*, J. Econ. Taxon. Bot. 25(1): 29. 2001. (Lauraceae)

Type: India, Assam, Jorhat district, Puranimati, 86 m, *S.C. Nath & A. Baruah* RRLJ 1861 (holotype CAL, isotype ASSAM, RRL Herbarium, Jorhat).

Note: Isotype could not be traced at ASSAM.

12. *Croton bhasanthiae* T.K.Paul*, J. Econ. Taxon. Bot. 25(3): 594. 2002 (2001 publ. 2002). (Euphorbiaceae)

Type: India, Kalijhora, near Teesta river bank, c. 304 m, 7.9.1999, *T.K. Paul* 26840A (holotype CAL); *T.K. Paul* 26840B & C (isotypes CAL).

Note: Isotypes could not be traced at CAL.

13. *Eria arunachalensis* A.N.Rao, J. Econ. Taxon. Bot. 21(3): 711. 1998 (1997 publ. 1998). (Orchidaceae)

Type: India, Arunachal Pradesh, West Siang district, Kaying, 150 m, *A.N. Rao* 30108A (holotype Orchid Herbarium, T,ipi); *A.N. Rao* 30108B (isotype CAL).

Note: Isotype could not be traced at CAL. *A.N. Rao* 30108B was incorrectly indicated as paratype in the protologue.

14. *Eugenia manickamiana* Murugan, J. Econ. Taxon. Bot. 26(2): 414. 2002. (Myrtaceae)

Type: India, Tamilnadu, Tirunelveli district, Courtallum Hills, way to Attaikkadu from Therkkumalai Estate, 31.5.2001, *Murugan XCH* 20932 (holotype XCH, isotypes MH, XCH).

Note: Isotype could not be traced at MH.

15. *Euphorbia katrajensis* Gage var. *kasaragodensis* V.J.Nair, Binojk. & R.Ansari*, J. Econ. Taxon. Bot. 14(2): 471. 1990 (Euphorbiaceae)

Type: India, Kerala, Cannanore district, Bela, 1.10.1982, *R. Ansari* 74431 (holotype CAL, isotype MH); Kasaragod district, Bela, 30.9.1989, *M.S. Binojkumar* 85075 (paratype MH).

Note: Isotype and paratype could not be traced at MH.

16. *Fimbristylis diglumoides* Govind. & S.K.Varma*, J. Econ. Taxon. Bot. 21(2): 377. 1997. (Cyperaceae)

Type: Bihar, Dumka, 25 km north east of Antall village, *Das* 3542 (holotype CAL, isotype MH).

Note: Isotype could not be traced at MH.

17. *Glochidion balakrishnanii* Jothi, Manickam, Sundaresan & Josephine, J. Econ. Taxon. Bot. 26(1): 114. 2002. (Euphorbiaceae)

Type: Tamilnadu, upper Kothayar, on the way to Kakachi in Tirunelveli district, 21.12.1999, *Sundaresan et al.* 20087 (holotype XCH, isotype MH).

Note: Isotype could not be traced at MH.

18. *Glycosmis tirunelveliensis* Murugan & Manickam, J. Econ. Taxon. Bot. 28(3): 559. 2005. (Rutaceae)

Type: India, Tamilnadu, Tirunelveli district, Papanasam hills, Karayar – Inchikuzhi path, 300–600 m, 12 Feb. 1999, *V.S. Manickam* 17881 (holotype XCH; isotypes XCH & MH); *V.S. Manickam* 11170, 13883, 12403, 13083, 15672, 16899, 18451 (paratype XCH).

Note: Isotype could not be traced at MH. The holotype was inadvertently cited also as paratype in the protologue.

19. *Grammitis pilifera* Ravi & J. Joseph var. *munnaensis* Antony, A.E.S.Khan, E.S.S.Kumar & Jac. Thomas, J. Econ. Taxon. Bot. 20(3): 697. 1996. (Grammitidaceae)

Type: India, South India, Kerala, Idukki district, Munnar, Guderale, Oct. 7 1994, *Santhosh Kumar* 22511 (holotype TBGT, isotypes CALI, MH).

Note: Isotype could not be traced at MH.

20. *Gymnostachyum sahyadricum* C.N.Mohanan, Remadevi & Binojk.*, J. Econ. Taxon. Bot. 26(1): 38. 2002. (Acanthaceae)

Type: India, Kerala, Quilon district, Chokkampatty Hills, 23.3.1990, *Mohanan* 73469 (holotype & isotype MH).

Note: Isotype could not be traced at MH.

21. *Hedyotis ramarowii* (Gamble) R.S.Rao & Hemadri var. *kannikattica* Sundaresan, Manickam, Jothi & Murugan, Indian J. Forest. 25(1–2): 102. 2002. (Rubiaceae)

Type: India, Tamilnadu, Tirunelveli district, Papanasam hills (Kannikatti), along river banks, ± 950 m, 5 Aug. 1998, *Sundaresan et al.* XCH 16779 (holotype XCH; isotypes MH, XCH).

Note: Isotype could not be traced at MH.

22. *Hedychium satyanarayanum* Sush.C.Srivast.*, Indian J. Forest. 22(1): 85. 1999. (Zingiberaceae)

Type: India, Meghalaya, Shillong, Old Barapani road, September 11th 1970, *A.S. Rao* 38640 (holotype ASSAM); Umjaisaw to Mynsyngat, K. & J. Hills, August 26th 1968, *N.P. Balakrishnan* 47145 (paratype ASSAM); Shillong, September 8th 1886, *C.B. Clarke* 44683A (paratype CAL).

Note: Paratypes could not be traced at ASSAM and CAL.

23. *Herminium kamengense* A.N.Rao, J. Econ. Taxon. Bot. 25(2): 287. 2001. (Orchidaceae)

Type: India, Arunachal Pradesh, West Kameng district, Bomdila, 2500 m, on sun exposed grassy hill slopes, *A.N. Rao* 30600A (holotype Orchid Herbarium, Tipi); *A.N. Rao* 30600B (isotype CAL); *A.N. Rao* 30600C (isotype ASSAM).

Note: The author has incorrectly indicated the isotypes as paratypes in the protologue. Isotypes could not be traced at CAL and ASSAM.

24. *Impatiens tirunelvelica* M.B.Viswan. & Manik., Bull. Bot. Surv. India 45(1–4): 189. 2003. (Balsaminaceae)

Type: India, Tamilnadu, Kalakkad-Mundanthurai Tiger Reserve, 8°20'–8°53' N and 77°10'–77°35' E, ± 1050 m, 6.5.2000, *M.B. Viswanathan & U. Manikandan* 6256 (holotype K; isotypes MH, Sri Paramakalyani Centre for Environmental Sciences); same locality, 22.3.2000, *M.B. Viswanathan & U. Manikandan* 5710 and same locality, 4.5.2002, *M. Viswanathan & U. Manikandan* 18499 (paratypes Sri Paramakalyani Centre for Environmental Sciences).

Note: Isotype could not be traced at MH.

25. *Kopsia majumdarii* M.Gangop. & Chakrab.*, J. Econ. Taxon. Bot. 16(1): 59. 1992. (Apocynaceae)

Type: Malaya, Perak, open jungle, 300–600 ft, Aug. 1885, *King's Collector 7937* (holotype CAL, isotypes '2 sheets' CAL).

Note: Isotypes could not be traced at CAL.

26. *Leucas manipurensis* V.Singh, J. Econ. Taxon. Bot. 21(3): 743. 1998 (1997 publ. 1998). (Lamiaceae)

Type: India, Manipur, Kangchup forest near Imphal, 19th April 1962, *J.G. Srivastava & Party 81695* (holotype LWG); Kangchup, about 10 miles from Imphal, 19.4.1962, *J.G. Srivastava 87414* (paratype LWG); Khasi hills, Elephant falls, Slullarg, 2.10.1981, *Ved Prakash 12617* (paratype CDRI); Mawphalalang, Low Lungdoh, 10.8.1974, *P.K. Hajra 52126* (paratype ASSAM).

Note: Paratype could not be traced at ASSAM.

27. *Millettia pseudoracemosa* Thoth. & S.Ravik.*, J. Econ. Taxon. Bot. 21(1): 239. 1997, '*pseudoracemosa*'. (Leguminosae)

Type: India, Tamilnadu, Anamalai Hills, Valparai, 350 m, 21.4.1995, *S. Ravikumar 334A* (holotype MH); *S. Ravikumar 334B & C* (isotypes CAL, Madras University Herbarium, Chennai).

Note: Isotype could not be traced at CAL.

28. *Oberonia katakiana* A.N.Rao, J. Econ. Taxon. Bot. 20(3): 711. 1996. (Orchidaceae)

Type: India, Arunachal Pradesh, West Kameng district, Tipi, 200 m, *A.N. Rao 26077A* (holotype Orchid Herbarium, Tipi); *A.N. Rao 26077B* (paratype CAL); *A.N. Rao 26077C* (paratype ASSAM).

Note: Paratypes could not be traced at CAL and ASSAM.

29. *Pogostemon peethapushpum* Pradeep, Candollea 53(2): 419. 1998. (Lamiaceae)

Type: India, Kerala, Kozhikode district, Vellarimala, 11°25.877' N, 76°06.765' E, c. 1820 m, 12 Jan. 1997, *Pradeep 5489* (holotype K; isotypes L, PBL, CALI).

Note: Isotype could not be traced at PBL.

30. *Pycneus fasciculatus* Govind.*, J. Econ. Taxon. Bot. 20(2): 301. 1996. (Cyperaceae)

Type: India, Kerala, Munar, Idimottai, *Govindarajalu 15427* (holotype CAL, isotype MH); Tamilnadu, Tirunelveli district, Kudiraivetti, *Govindarajalu 11608* (paratype BLAT); Coimbatore district, Valparai, *Govindarajalu 12355* (paratype BSI); Salem district, Kolli hills, *Krishnamurthi 11861* (paratype DD).

Note: Isotype and paratype could not be traced at MH and BSI, respectively.

31. *Rhynchostylis albiflora* I.Barua & Bora*, J. Econ. Taxon. Bot. 26(1): 251. 2002. (Orchidaceae)

Type: India, Assam, Jorhat (26°47' N lat. and 94°12' E long.), Karanga, 86.8 m above MSL, 28.4.1994, *Barua 3286* (holotype CAL, isotype ASSAM).

Note: Isotype could not be traced at ASSAM.

32. *Sadiria erecta* Mez var. *longipetiolata* G.S.Giri, G.D.Pal & H.J.Chowdhery, Indian J. Forest. 15(1): 93. 1992. (Myrsinaceae)

Type: India, Arunachal Pradesh, Lower Subansiri district, on the way from Begi to Amjee, 5 miles from Begi, 1400–1500 m, 12.11.1964, *A.R.K. Sastry 40533* (holotype ARUN).

Note: Holotype could not be traced at ARUN.

33. *Sansevieria maduraiensis* Binojk.*, J. Econ. Taxon. Bot. 26(2): 458. 2002. (Dracaenaceae)

Type: India, Tamilnadu, Madurai, 25.6.1993, *Binojkumar s.n.* (holotype CAL, isotype MH).

Note: Isotype could not be traced at MH.

34. *Sonerila inaequalis* Murugan & Manickam*, J. Econ. Taxon. Bot. 25(3): 510. 2002 (2001 publ. 2002). (Melastomataceae)

Type: India, Tamilnadu, Tirunelveli dist., Courtallum hills, 1500–1700 m, 15.2.2000, *Murugan XCH* 18228 (holotype MH, isotype CAL & XCH).

Note: Isotype could not be traced at CAL.

35. *Strobilanthes barbata* Nees var. *bonaccordensis* E.S.S.Kumar & Raj Vikr., J. Econ. Taxon. Bot. 25(3): 742. 2002 (2001 publ. 2002). (Acanthaceae)

Type: India, Kerala, Thiruvananthapuram district, Bonaccord, 21.3.1996, *Santhosh Kumar* 25413 (holotype TGBT, isotype MH, CALD); TBGRI Garden site, *Rajesh & T. Shaju* 24062 (paratype TBGT); Pathanamthitta district, Thriveni, A.G. *Pandurangan & M. Raveendran* 16142 (paratype TBGT); Pamba, *Santhosh Kumar* 23292 (paratype TBGT).

Note: Isotype could not be traced at MH.

36. *Xanthophyllum manickamii* Murugan, J. Econ. Taxon. Bot. 26(2): 413. 2002. (Polygalaceae)

Type: India, Tamilnadu, Tirunelveli district, Kalakkad Hills, Sengaltheri-Naterical path, 900–1100 m, 29.3.1998, *Murugan XCH* 15377 (holotype XCH, isotypes MH, XCH).

Note: Isotype could not be traced at MH.

37. *Zeuxine dhanikariana* Maina, Lalitha & Sreek.*, J. Econ. Taxon. Bot. 25(1): 21. 2001. (Orchidaceae)

Type: India, South Andaman, near Dhanikari, Goal Tikkiri, 10.4.1997, *Maina & Sreekumar* 18433A (holotype CAL); *Maina & Sreekumar* 18433B & C (isotypes PBL).

Note: Isotypes could not be traced at PBL.

3. CONCLUSION

The present analysis along with one of our earlier publications (Bandyopadhyay, 2017c) suggests that the types of 74 names are available at the respective herbarium/herbaria as stated in the protologues; for 34 names either holotype/isotypes or paratype are found in the stated herbaria but not all the types and no types could be located for the remaining 60 names. For 55 names, holotypes are not found and for 25 names, there are no types at all. Numerous inconsistencies between the data in the protologues and what is written on the original labels of type specimens were noticed. This happened mostly with the protologues published in the Journal of the Economic and Taxonomy Botany. Results of our overall type verification work are tabulated below.

Publications	Number of protologues examined	Types deposited	Types partly deposited	Types not deposited/could not be traced	Holotypes not deposited
Bandyopadhyay <i>et al.</i> (2016)	71	36	6	29	18
Bandyopadhyay <i>et al.</i> (2017b)	50	14	10	26	15
Bandyopadhyay <i>et al.</i> (2017c) and Bandyopadhyay <i>et al.</i> (present paper)	168	74	34	60	55

The casual approach of the authors in depositing the types of plant names leads to nomenclatural and taxonomic ambiguities of described novelties. This approach is also considered as an unethical practice in science. We hope that the authors of the plant names deposit the types without fail to maintain nomenclatural stability in plant taxonomy.

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