

34. ADDITIONS TO THE TYPE MATERIAL IN THE HERBARIUM OF BOTANICAL SURVEY ON INDIA, WESTERN CIRCLE, PUNE

It is well known to taxonomists that names of plant groups at the rank of family and below must be based on nomenclatural types. A nomenclatural type is that constituent element of the taxon on which the name of that particular taxon is permanently attached, whether as a correct name or a synonym. As per the International Code of Botanical Nomenclature (ICBN), publication of the name of a new taxon of the rank of family or below on or after January 1, 1958 is valid only when the nomenclatural type of the taxon is indicated.

Singh and Deshpande (1980) enumerated 465 type sheets deposited in the Western Circle herbarium of the Botanical Survey of India (BSI). These types belong to 91 species and 4 varieties, and include the historically important collections of T. Cooke and W.A. Talbot.

Information on 105 type specimens and one type photograph are presented here which were added to the type section of the herbarium BSI, Pune in recent past. These type materials belong to 62 taxa including 49 species, 1 subspecies and 12 varieties under 23 families and 39 genera. Out of the 105 type specimens 7 are Holotypes, 67 Isotypes and 31 Paratypes. Category of the type is not indicated in the photograph mentioned above.

The original publications or protologue of each taxon mentioned in this paper was searched, and confirmed the types deposited in the herbarium BSI. Type specimens of few taxa published by Prof. V.N. Naik and his associates were found in BSI. In the relevant protologues it is mentioned that these types are deposited in the herbarium of Department of Botany, Marathwada University (MU), Aurangabad, Maharashtra. But later on these types were shifted to BSI for safe custody.

Also type specimens of the few taxa published by the researchers of some other institutes like Blatter Herbarium (BLAT), Mumbai, Botany Department Herbaria of Shivaji University, Kolhapur and University of Goa are also deposited in the BSI.

Generally, isotypes and paratypes are found in BSI, Pune and the Holotypes are usually deposited in the Central National Herbarium (CAL) at Howrah. Including the recent additions, at present there are a total number of 570 type materials in BSI, Pune that includes 26 Holotypes, 208 Isotypes, 290 Paratypes, 35 Syntypes and 2 Neotypes. Also as reported by Singh and Deshpande (1980) 5 type photos and 4 type sheets, which are not categorized, are also included. These type materials represent 157 taxa, including 140 species, 1 subspecies and 16 varieties.

CAPPARIDACEAE

Capparis cleghornii Dunn ex Gamble, Fl. Pres. Madras 46. 1915 (1: 33. 1957, repr.).

Type photo (1): Balabroydroog (Ballalarayanadruga), Karnataka, *Cleghorn* D 176, 13.iv.1846. Kew Negative No. 5723.

TAMARICACEAE

Tamarix kutchensis B.V. Shetty & R.P. Pandey in Bull. Bot. Surv. India 31: 152. (1989) 1992.

Holotype: Mundra - Mandvi, Gujarat, *Jain* 11735, 2.ii.1957.

Note: It is mentioned in the protologue that *Isotype* is also in BSI, but could not be located.

MALVACEAE

Abelmoschus manihot (L.) Medik. ssp. *tetraphyllus* (Roxb. ex Horn.) Borss. var. *megaspermus* Hemadri in Bull. Bot. Surv. India 11: 338. (1969) 1972.

Isotype: Pimparwadi, 20 km west of Junnar, Poona Dist., Maharashtra, *Hemadri* 106812 B, 5.x.1965.

Paratypes: Inglun, 20 km west of Junnar, Poona Dist., Maharashtra, *Hemadri* 107380, 26.ix.1965; Religaon, 10 km west of Junnar, *Hemadri* 107313, 24.ix.1965; Dhak forest, 28 km west of Junnar, *Hemadri* 107452, 29.ix.1965; Bhivade khurd, 24 km west of Junnar, *Hemadri* 108164, 20.i.1966; Girnar, Junagadh, Gujarat, *Ansari* 59880, 23.xii.1959; Inglun, 20 km west of Junnar, Poona Dist., Maharashtra, *Hemadri* 99782, 20.x.1964.

TILIACEAE

Triumfetta tungarensis Billore in J. Econ. Tax. Bot. 3: 621.1982 (A synonym of *Triumfetta rhomboidea* Jacq.).

Isotypes: Mazivili R.F., Mandvi forest range, Thane Dist., Maharashtra, *Billore* 115873 B-C, 23.xi.1968.

MELIACEAE

Azadirachta indica A. Juss. subsp. *vartakii* Kothari et al. in Bull. Bot. Surv. India 39: 181, f. 1. (1997) 2001.

Isotypes: Rani-Amaravati, Amaravati Dist., Maharashtra, *Kothari* 173100 C-F, 6.iii.1997.

FABACEAE

Crotalaria decasperma Naik in Indian Forester 92: 760, f. A-D. 1966.

Isotype: Ghatangri, Osmanabad Dist., Maharashtra, *Naik* 976 D, 15.xi.1964.

Indigofera duthiei Drumm. ex Naik in Proc. Ind. Acad. Sci. 71 (B): 227. 1970. (Synonym of *Indigofera trifolia* L. var. *duthiei* (Drumm. ex Naik) Sanj., Legumes of India 196. 1991).

Holotype: Ram-Ling forest, Osmanabad town, Maharashtra, Naik 1319, 16.x.1966.

Note: Naik, *l.c.* validated the name *Indigofera duthiei* by providing the description and quoted the above mentioned specimen (Naik 1319) as the type. Photograph provided in the protologue is of the same specimen.

Zornia quilonensis Ravi in J. Bombay Nat. Hist. Soc. 66: 489. 1969.

Paratype: Residency, Quilon, Quilon (Kollam) Dist., Kerala, Ravi 308 A, 14.viii.1967.

CAESALPINIACEAE

Cassia kolabensis Kothari, Moorthy & M.P. Nayar in Proc. Indian Acad. Sci. (Pl. Sci.) 90 (3): 199, f. 1.9.1981.

Isotype: Penn to Khopoli Road, Kolaba, Raigad Dist., Maharashtra, Kothari 147461 B, 27.ix.1976.

Note: *Paratypes* (147910B & 115377) were not found, though mentioned in the protologue.

APIACEAE

Heracleum dalgadianum M.R. Almeida in Indian forester 111: 158, f. 1.5.1985.

Paratype: Amboli, Sindhudurg Dist., Maharashtra, Almeida MRA-1627 C, 2.x.1981.

Pimpinella rollae Billore & Hemadri in Indian Forester 108: 712. 1982.

Isotype: BSI Experimental garden, Poona (Raised from the seeds from Kedarnath hill slope, Harishchandragarh, Thane Dist., Maharashtra), Billore 115986 B-E, 15.vii.1969.

Note: *Partypes* (115489 B-F) were not found, though mentioned in the protologue.

RUBIACEAE

Tarenna agumbensis Sundararagh. in Bull. Bot. Surv. India 10: 341. 1968.

Paratype: Chytramane, Agumbe, Shimoga Dist., Karnataka, Sundararaghavan 80583 A-B, 14.v.1962.

Note: Singh & Deshpande, *l.c.* have not included the *paratypes*, but *Isotypes* only).

ASCLEPIADACEAE

Brachystelma ciliatum Arekal & T.M. Ramakrishna in Curr. Sci. 50(3): 145, f. 1 A-J. 1981.

Isotype: Sonnipally, Kolar Dist., Karnataka, Ramakrishna 1311 c, 27.vi.1979.

Paratypes: Sonnipally, Kolar Dist., Karnataka, Ramakrishna 1316, 29.vi.1979; 1340 A, 24.viii.1979.

Ceropegia anantii S.R. Yadav, M.M. Sardesai & S.P. Gaikwad in J. Bombay Nat. Hist. Soc. 101: 141. 2004.

Isotype: Salva hills, Sindhudurg Dist., Maharashtra, Yadav 495, 15.ix.1998.

LENTIBULARIACEAE

Utricularia janarthanamii S.R. Yadav, M.M. Sardesai & S.P. Gaikwad in Rheede 10(2): 107. 2000.

Isotype: Kolhapur, Kolhapur Dist., Maharashtra, Sardesai MMS 233 C, 17.viii.1997.

Utricularia naikii S.R. Yadav, M.M. Sardesai & S.P. Gaikwad in Rheede 10(2): 110. 2000.

Isotypes: Amboli, Sindhudurg Dist., Maharashtra, Sardesai MMS 1911 C & G, 29.ix.1999.

GESNERIACEAE

Paraboea nagalandiana Deb & R. Dutta in J. Bombay Nat. Hist. Soc. 85: 168. 1988.

Paratype: Sarpung, Naga hills, Meebold 7230, Dec. 1907.

ACANTHACEAE

Dicleptera nasikensis Lakshmin. & B.D. Sharma in J. Econ. Tax. Bot. 7: 481, f. 1-9b. (1985) 1986.

Isotypes: Dangsaundane (Satana range), Nasik Dist., Maharashtra, Narasimhan 163977 B-E, 20.v.1983.

Paratypes: Dangsaundane (Satana), Nasik Dist., Maharashtra, Narasimhan 167696 A-F, 17.v.1985.

EUPHORBIACEAE

Croton caudatus Geisel var. *obovoides* Balak. & Chakrab. in Bull. Bot. Surv. India 25: 190. (1983) 1985.

Paratype: Kuzhuthuruthy river bank, Kerala, Subramanian 70886, 4.v.1961.

Dalechampia stenoloba Sundararagh. & B.G. Kulk. in Kew Bull. 35(2): 325. 1980.

Isotypes: Sukhalhatti forests, Lakkavali range, Chikmagalur Dist., Karnataka, Raghavan 126547 B-C, 22.x.1970.

Note: Coll. No. 126547 D & E were not found in BSI, though mentioned in the protologue.

Euphorbia concanensis Janarthanam & S.R. Yadav in Rheede 5(2): 148. 1995.

Isotype: Achirane between Phonda and Vaibhavadi, Sindhudurg Dist., Maharashtra, Janarthanam & Yadav 1002, 20.ix.1993.

ORCHIDACEAE

Coelogyne schultesii S.K. Jain & S. Das in proc. Ind. Acad. Sci. 87B: 121. 1978.

Paratype: Jowai, Jaintea hills, Prain's collector 159, May 1899.

ZINGIBERACEAE

Amomum ghaticum K.G. Bhat in Ind. J. For. 11: 322, f. 1-9. 1988.

Isotype: Sampaji Ghat, near Jodu-pala, Coorg (Kodagu) Dist., Karnataka, *Bhat* 1971, 9.v.1986.

Paracaulleya bhatii R.M. Smith in Notes R.B.G. Edinb. 35: 368. 1977.

Isotype: Manipal, near Medical college, South Kanara (Dakshina Kannada) Dist., Karnataka, *Bhat* 204, 1.vii.1975.

LILIACEAE

Camptorriza indica S.R. Yadav, N.P. Singh & B. Mathew in Kew Bull. 48: 735, f. 1. 1993.

Isotype: Ratnagiri (Bhatia - Tisari Dharmashala), Maharashtra, *Yadav* y-1867 A, 20.vi.1990.

Iphigenia magnifica Ansari & R.S. Rao in Bull. Bot. Surv. India 20: 162. (1978) 1979.

Isotypes: Mukti lake area, Dhule, Dhule Dist., Maharashtra, *Pataskar* 118218 B-C, 5.x.1969.

Paratypes: Mukti lake area, Dhule, Dhule Dist., Maharashtra, *Ansari* 104945, 8.ix.1970; Matheran hill, Kolaba, Raigad Dist., Maharashtra, *Ansari* 104948, 30.vii.1973.

Iphigenia sahyadrica Ansari & R.S. Rao in Bull. Bot. Surv. India 20: 163. (1978) 1979.

Isotype: Hulical, Shimoga Dist., Karnataka, *Raghavan* 90209 B, 25.viii.1963.

Paratype: Hulical, Shimoga Dist., Karnataka, *Ansari* 104952 A-B, 24.viii.1973.

ARACEAE

Arisaema sivasadanii S.R. Yadav, Patil & Janarth. in Aroideana 20: 53, f. 1-4. 1997.

Paratype: Amboli, Sindhudurg Dist., Maharashtra, *Yadav* 4695 B, 22.x.1995.

Note: The above mentioned specimen (4695 B) is marked as *Isotype*. It cannot be a duplicate of the *Holotype* (No. 4688), though collected from the same locality, but can be treated as a *Paratype*.

APONOGETONACEAE

Aponogeton bruggenii S.R. Yadav & Govekar in Rheede 4(1): 34. 1994.

Isotype: Nerurpar, Sindhudurg Dist., Maharashtra, *Yadav* 1, 10.ix.1992.

ERIOCAULACEAE

Eriocaulon karnatakense S.P. Gaikwad, M.M. Sardesai, U.S. Yadav & S.R. Yadav in Rheede 14: 63. 2004.

Isotype: Khemangudi, Karnataka, *Yadav* GSP-3. 15.ix.2000.

Eriocaulon kolhapurens S.P. Gaikwad, M.M. Sardesai & S.R. Yadav in Rheede 12: 133. 2002.

Isotype: Chikewadi, (Ranga Fort), Kolhapur Dist., Maharashtra, *Sardesai* 5350. 30.ix.1998.

Eriocaulon ratnagiricus S.R. Yadav, S.P. Gaikwad & M.M. Sardesai in Rheede 8: 145, f. 1. 1998.

Isotype: Dharmashala, about 3 km from Ratnagiri on way to Pavas, Maharashtra, *Gaikwad* 1 B, 1.x.1996.

HYDATELLACEAE

Trithuria konkanensis S.R. Yadav & Janarth. in Rheede 4(1): 18. 1994.

Isotype: Achirane, Sindhudurg Dist., Maharashtra, *Yadav & Janarthanam* 1001, 20.ix.1993.

CYPERACEAE

Fimbristylis ambavanensis V.P. Prasad & N.P. Singh in J. Bombay Nat. Hist. Soc. 96 (3): 454. 1999.

Isotypes: On top of the fort, Ambavane, Pune Dist., Maharashtra, *Venkatta Reddi* 99049 A-B, 6.ix.1964.

Fimbristylis ratnagirica V.P. Prasad & N.P. Singh in J. Econ. Tax. Bot. 21(3): 673. 1997.

Isotype: Osargaon plateau, Kasal, Ratnagiri Dist., Maharashtra, *Kulkarni* 131758 A, 18.viii.1971.

Fimbristylis simpsonii V.P. Prasad & N.P. Singh in J. Bombay Nat. Hist. Soc. 96(3): 456. 1999.

Isotype: Kanagal gudd, Tirthahalli, Shimoga Dist., Karnataka, *Sundararaghavan* 90025 A, 19.viii.1963.

Pycneus kanarensis V.P. Prasad & N.P. Singh in J. Econ. Tax. Bot. 21(3): 667. 1997.

Isotypes: Karwar, Kanara, Uttara Kannada Dist., Karnataka, *Chibber s.n.* (Acc. No. 2519 & 2520), Nov. 1910.

POACEAE

Brachiaria brizantha (Hochst. ex A. Rich.) Stapf var. *ciliata* Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 378. 1983.

Isotype: Department garden, Manasagangotri (Fiji origin, introduced through USDA, USA: 355712), Mysore, Karnataka, *Basappa & Muniyamma* 1004-b, 11.ix.1980.

Brachiaria chennaveraiana Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 378. 1983.

Isotype: Near Gomukh, Mount Abu, Rajasthan, *Basappa & Muniyamma* 2195-b, 15.x.1980.

Brachiaria eruciformis var. *divericata* Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 379. 1983.

Isotype: Bogadi, near Mysore, Mysore Dist., Karnataka, *Basappa & Muniyamma* 1451-b, 12.viii.1979.

Brachiaria hybrida Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 379. 1983.

Isotype: Near Tunga dam, Gajanur, Shimoga Dist., Karnataka, *Basappa & Muniyamma* 2851-b, 10.ix.1979.

Brachiaria muna Basappa in Proc. Ind. Acad. Sci. (Plant Sci.) 93: 53, f. 1. 1984.

Isotype: Madurai Kamaraj University Campus, Madurai Dist., Tamil Nadu, *Basappa* 3001-b, 20.xii.1979.

Brachiaria ramosa Stapf var. *pubescens* Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 380. 1983.

Isotype: Benakanahalli, Shimoga Dist., Karnataka, *Basappa & Muniyamma* 2171-b, 20.viii.1980.

Brachiaria reptans Gard. & Hubb. var. *hispida* Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 380. 1983.

Isotype: Govinakovi, Shimoga Dist., Karnataka, *Basappa & Muniyamma* 2302-b, 10.x.1980.

Brachiaria semiundulata Stapf var. *intermedia* Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 380. 1983.

Isotype: Near Doopada Bore, Bedaguli, Mysore Dist., Karnataka, *Basappa & Muniyamma* 2602-b, 8.viii.1979.

Brachiaria semiundulata Stapf var. *lanata* Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 380. 1983.

Isotype: Near Doopada Bore, Bedaguli, Mysore Dist., Karnataka, *Basappa & Muniyamma* 2603-b, 8.viii.1979.

Brachiaria setigera var. *albistyla* Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 380. 1983. (Synonym of *Urochloa setigera* var. *albistyla* (Basappa & Muniy.) Karthik. *et al.*, Fl. Ind. Enum. Monocot. 273. 1989).

Isotype: Agriculture College Campus, Coimbatore Dist., Tamilnadu, *Basappa & Muniyamma* 2716-b, 25.x.1980.

Brachiaria stapfiana Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 379. 1983.

Isotype: Near Ugra Narasimha Temple, Hampi, Bellary Dist., Karnataka, *Basappa & Muniyamma* 2100-b, 20.ix.1979.

Brachiaria villosa A. Camus var. *glaberrima* Basappa & Muniy. in Proc. Ind. nat. Sci. Acad. B 49: 381. 1983.

Isotype: Near Monkey point, Kasauli, Siwalik Hills, Chandigarh, *Basappa & Muniyamma* 2911-b, 26.xi.1981.

Coelachne ghatica Naik in Reinwardtia 9: 393. 1980 *et* in Indian Forester 106: 732, f.9. 1980. (A synonym of *Coelachne minuta* Bor)

Holotype: Amboli, Western Ghats, Maharashtra, *Naik* 1300 a, 13.ix.1971.

Isotype: *Naik* 1300 b.

Eulalia shrirangii C.B. Salunke & G.G. Potdar in Kew Bull. 59: 625. 2004.

Isotype: Kas plateau, Satara Dist., Maharashtra, *Salunke* 8170. 9.x.1994.

Glyphochloa henryi Janarth., Joshi & Rajkumar in Rheedeia 10: 99. 2000.

Isotype: Tisk, Usgao, Goa, *Janarthanam & Rajkumar* 1661, 27.ix.1998.

Glyphochloa veldkampii Fonseca & Janarth. in Rheedeia 13: 35. 2003.

Isotype: Kasauli, along the Panaji-Belgaum highway (NH 4A), in the outskirts of Bhagwan Mahavir Wildlife Sanctuary, Goa, *Janarthanam & Fonseca* 1901. 21.x.2001.

Isachne bicolor Naik & Patunkar in Bull. Bot. Surv. India 15: 157. (1973) 1976.

Isotype: Mhaismal, Aurangabad Dist., Maharashtra, *Patunkar* 1849 D, 8.x.1973.

Isachne swaminathanii Ved Prakash & S.K. Jain in Proc. Ind. Acad. Sci. (Plant Sci.) 92: 19, f. 10. 1983.

Paratypes: Mahabaleshwar, Satara Dist., Maharashtra, *Puri* 25641 & 25642 A-B, 5.x.1957; Near Valvan dam, Lonavala, Pune Dist., Maharashtra, *Venkata Reddi* 98729 A-B, 26.ix.1964; Harichandrargarh, Thane Dist., *Wadhwa* 127804, 27.ix.1970.

Note: Coll. Nos. 25641 & 25642 are not included in the protologue, but found in BSI marked as paratypes.

Mnesithea veldkampii G.G. Potdar, S.P. Gaikwad, C.B. Salunke & S.R. Yadav in Kew Bull. 59: 629. 2004.

Isotype: Mavashi plateau, Satara Dist., Maharashtra, *Yadav* 1466. 6.xi.2002.

Panicum deccanense Naik & Patunkar in Reinwardtia 9: 405. 1980.

Holotype: Mirzapur - Degloor, Nanded Dist., Maharashtra, *Patunkar* 2350 a, 24.ix.1974.

Isotype: *Patunkar* 2350 d.

Panicum paianum Naik & Patunkar in Reinwardtia 9: 407. 1980.

Holotype: Rajghar, Nanded Dist., Maharashtra, *Patunkar* 2430 A, 26.x.1974.

Isotypes: *Patunkar* 2430 C&D.

Panicum paianum Naik & Patunkar var. *minor* Naik & Patunkar in Reinwardtia 9: 409. 1980.

Holotype: Rajghar, Nanded Dist., Maharashtra, *Patunkar* 2439 A, 26.x.1974.

Isotype: *Patunkar* 2439 E.

Panicum phoinicladus Naik & Patunkar in Reinwardtia 9: 403. 1980.

Holotype: Ganjgaon, Nanded Dist., Maharashtra, *Patunkar* 2468 A, 17.xi.1974.

Isotype: *Patunkar* 2468 C.

Themeda pseudotremula G.G. Potdar, C.B. Salunke & S.R. Yadav in Kew Bull. 58: 243. 2003.

Isotype: Tillari ghat, Kolhapur Dist., Maharashtra, *Potdar* 801. 12.xi.2001.

Tripogon polyanthus Naik & Patunkar in Bull. Bot. Surv. India 15: 158. (1973) 1976.

Isotype: Daulatabad, Aurangabad Dist., Maharashtra, *Patunkar* 1859 D, 18.x.1973.

ACKNOWLEDGEMENTS

July 11, 2003

V.P. PRASAD

I thank Dr. M. Sanjappa, Director, Botanical Survey of India (BSI), Kolkata for the facilities and Dr. P.S.N. Rao, Joint Director, BSI, Pune for encouragement.

Botanical Survey of India,
Western Circle, 7, Koregaon Road,
Pune 411 001, Maharashtra, India.
Email: Prasad_parur@yahoo.com

REFERENCE

SINGH, N.P. & U.R. DESHPANDE (1980): Type material in the Herbarium of the Botanical Survey of India at Poona. *J. Bombay Nat. Hist. Soc.* 76: 24-32.

35. ADDITIONS TO THE FLORA OF KARNATAKA

While investigating the flora of the Western Ghats and coastal belt of Karnataka, I came across three species of plants not recorded previously from Karnataka. The following list gives their correct nomenclature, distribution and, flowering and fruiting seasons. The specimens are deposited at Botanical Survey of India (BSI) and in the Herbarium of Poornaprajna College, Udupi.

1. *Cerasiocarpum bennettii* (Miq.) Cogn. in DC. Monog. Phan. 3: 729. 1881; Gamble, Fl. Pres. Madr. 3: 541. 1919; Chakr. in Fasc. Fl. India 11: 18. 1982. *Bryonopsis bennettii* Miq., Fl. Ind. Bat. 1: 657. 1855. *Aechmandra zeylanica* Thw., Enum. 125. 1858. *Cerasiocarpum zeylanicum* (Thw.) Hook. f. in Gen. Pl. 1: 832. 1862; Clarke in Hook. f., Fl. Brit. India. 2: 629. 1879. (Cucurbitaceae)

There is no record of this rare cucurbit from Karnataka so far, although Chakravathy (*l.c.*) gives the distribution range as Peninsular India. It is quite likely that this species may occur at many more localities in the forests of Western Ghats.

Fl. and Fr.: July-October

Exsicc.: Shimoga Dist.: Agumbe, October 8, 1989, K.G. Bhat 7169; Dakshina Kannada Dist.: Kudremukh Ghat, July 25, 1999, K.G. Bhat 11325.

2. *Polygonum capitatum* Buch.-Ham. in D. Don, Prod. Fl. Nep. 73. 1825; Hook. f., Fl. Brit. India 5: 44. 1886. (Polygonaceae)

In India, this species has so far been recorded only from the subtropical and temperate Himalaya and Palni hills. This species seems to be an adventive plant in S. India.

Fl. and Fr.: September-December.

Exsicc.: Kodagu Dist.: Kodagarahalli, near Suntikoppa, November 8, 1990, K.G. Bhat 10138.

3. *Spermacoce malabarica* (Sivar. & Mani.) Sivar. *et al.* in Proc. Indian Acad. Sci. (Plant Sci.) 97: 355. 1987. *Borreria malabarica* Sivar. & Mani. in Bull. Bot. Soc. Univ. Sagar 19: 31. 1972; Mani. & Sivar., Fl. Calicut 136. 1982. (Rubiaceae)

This endemic species is so far known only from Kerala (Sivarajan *et al.*, *l.c.*). The recent collection of this species from Dakshina Kannada is a new record of its extended distribution in southern India.

Fl. and Fr.: August-October.

Exsicc.: Dakshina Kannada Dist.: Kaikamba, near Mangalore, growing along roadside, August 20, 1993, K.G. Bhat 11203.

ACKNOWLEDGEMENTS

I thank the authorities of Botanical Survey of India, Western Circle, Pune and Dr. M. Sivadasan of Department of Botany, University of Calicut for their help in identifying the plants.

July 14, 2003

K. GOPALAKRISHNA BHAT
Department of Botany,
Poornaprajna College,
Udupi 576 101, Karnataka,
India.





Prasad, V P. 2005. "Additions To the Type Material in the Herbarium of Botanical Survey on India, Western Circle, Pune." *The journal of the Bombay Natural History Society* 102, 379–383.

View This Item Online: <https://www.biodiversitylibrary.org/item/188368>

Permalink: <https://www.biodiversitylibrary.org/partpdf/154800>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Biodiversity Heritage Library

Copyright & Reuse

Copyright Status: In Copyright. Digitized with the permission of the rights holder

License: <http://creativecommons.org/licenses/by-nc/3.0/>

Rights: <https://www.biodiversitylibrary.org/permissions/>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.