

**An outline of achievements and significant contributions
from March 1986 to January 2017**



V.P. Prasad

**Central National Herbarium
Botanical Survey of India
Howrah – 711 103**

Ph.D. from the **University of Pune in 1999 under the guidance of **Dr. N.P. Singh**, former Director, BSI**

Title of the thesis:

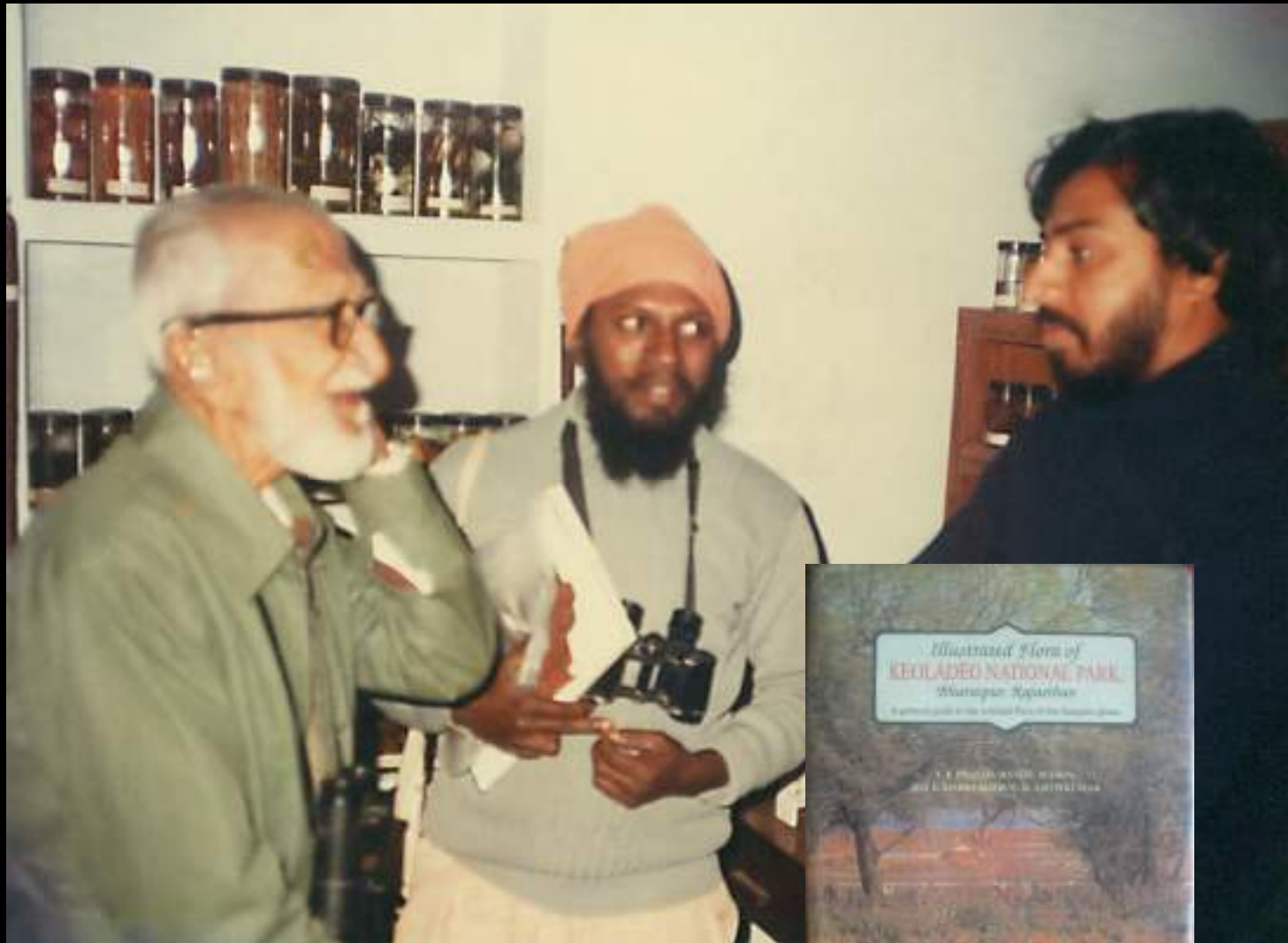
*A Revision of the Family Cyperaceae
in Karnataka, India*

Project: State Flora of Karnataka



Beginning of the career in BNHS (1982 – 1986)

With Dr. Salim Ali and Dr. V.S. Vijayan



Published jointly by BNHS and Oxford Univ. press, Bombay



**March 1986 to March 1993–Herb. Assist./Jr. sci. Assist.
in AZRC and SRC: Mainly Herbarium Activities.
Taxon. revision of selected plant families for the
Flora of Kerala – completed and submitted in 1992-93.**

Elatinaceae 2 genera, 3 spp.

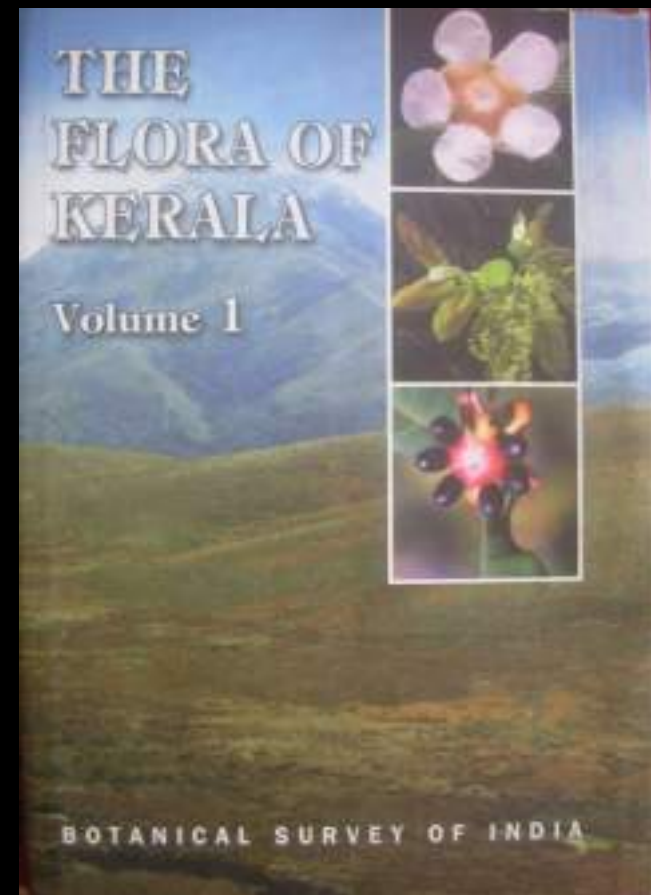
Erythroxylaceae 1 genus, 4
spp. (published in vol. 1, 2005).

Cucurbitaceae 23 genera, 43 spp.

Droseraceae 1 genus, 3 spp.

Passifloraceae 2 genera, 11
spp. (being published in vol. 2).

Total 64 species



March 1993 to June 2001 – Sci. Asst. in WRC

**Flora of Maharashtra: Contributed (as co-author)
for the following families:**

Balsaminaceae (with S.K. Mudaliar) 1 genus,
19 spp. (published in vol. 1).

Rubiaceae (with S.K. Mudaliar) 38 genera,
86 spp. + 18 cult. spp. (published in vol. 2).

Scrophulariaceae (with A. Godbole) 29 genera,
69 spp. + 9 cult. spp. (published in vol. 2).



**Total 174 species,
27 cult. spp.**

Flora of Karnataka: Prepared Mss. for the following families:

Cyperaceae 23 genera, 164 species (published in 2001 by private publisher, revised the Ms. and completed editing of the 2nd proof (22 genera, 165 species, 7 subspecies and 8 varieties).

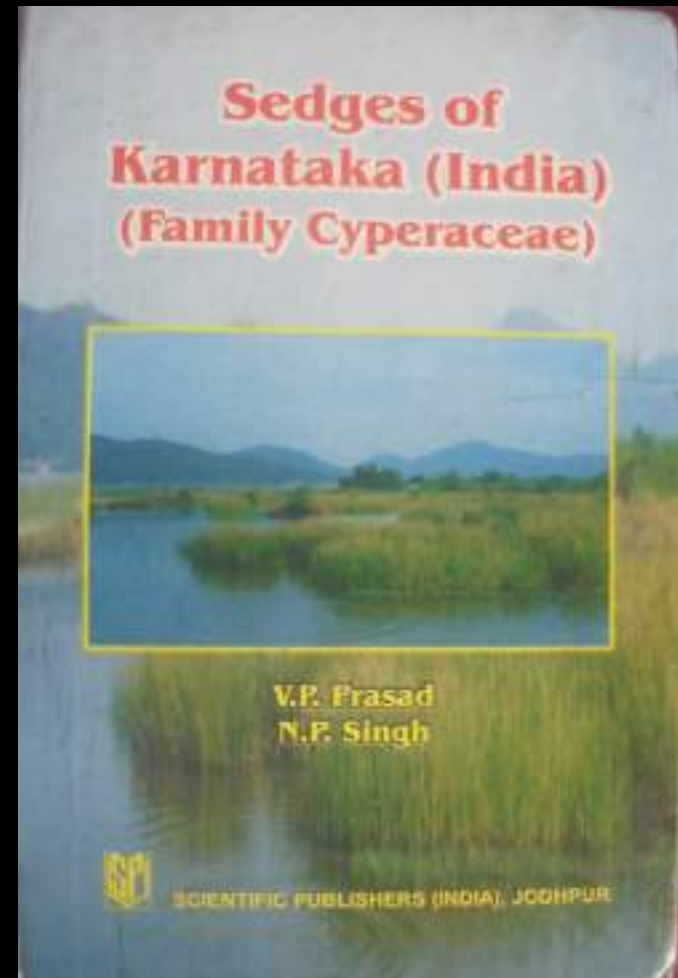
Prepared the Mss. of:

Crassulaceae 3 genera, 9 spp.
Dilleniaceae 1 genus, 4 spp.
Clusiaceae 5 genera, 14 spp.
Dipterocarpaceae 5 genera, 10 spp.
Haloragaceae 1 genus, 2 spp.
Onagraceae 2 genera, 8 spp.
Punicaceae 1 sp.
Trapaceae 1 sp.
Saxifragaceae 2 genera, 3 spp.
Asclepiadaceae 24 genera, 71 spp.

Prepared the Mss. and edited 2nd proof of

Lemnaceae 3 genera, 5 spp.
Alismataceae 4 genera, 5 spp.
Aponogetonaceae 1 genus, 3 spp.
Najadaceae 1 genus, 3 spp.
Juncaceae 2 genera, 3 spp.

Total 302 species



Also contributed for the **Checklist of Flora of Karnataka: Hydrocharitaceae to Cyperaceae - 640 spp. under 190 genera and 34 families . Asteraceae to Periplocaceae - 397 species.**

July 2001 – June 2013 – Scientist 'C' in WRC/CNH

- A. **Floristic Diversity in Tansa Wildlife Sanctuary, Thane District, Maharashtra** – (with C.R. Jadhav) - **581 spp., 358 genera, 97 families** - Submitted in May 2008.
- B. **Funded project:** (as Co-Investigator with Dr. P.S.N. Rao)
Conservation of Legume Germplasm from Western Ghats of Maharashtra with special emphasis on Rare and Threatened plant species – Funded by BGCI and coordinated by NBRI, Lucknow. – submitted the final report.
- C. **Flora of India:**
Taxonomic revision of the genera *Cyperus* (including *Mariscus*, *Juncellus*, *Anosporum* and *Sorostachys*) - **82 spp.**, *Courtoisina* - **1 sp.**, *Kyllinga* - **7 spp.**, *Pycreus* – **15 spp.**, *Queenslandiella* - **1 sp.** and *Remirea* - **1 sp.** of family *Cyperaceae* (submitted, need updating).
- D. **Flora of West Bengal** – Family *Cyperaceae* – in part – **16 genera, 74 spp.** (completed).
- E. **Editing of Flora of West Bengal** (Monocots - in part):
Edited the manuscripts of the families: *Burmanniaceae*, *Agavaceae*, *Hypoxidaceae*, *Taccaceae*, *Pontederiaceae*, *Xyridaceae*, *Juncaceae*, *Flagellariaceae*, *Typhaceae*, *Pandanaceae*, *Lemnaceae*, *Bromeliaceae*, *Musaceae*, *Cannaceae*, *Haemodoraceae*, *Smilacaceae* and *Dioscoreaceae*

IBLO at RBG, Kew - August 2008 to January 2011.

Sent images of the **types/authentic specimens of 224 taxa** and **photocopy of 221 articles including protologues** to different institutes and personnel in India.

Digitised 74 Type specimens from India

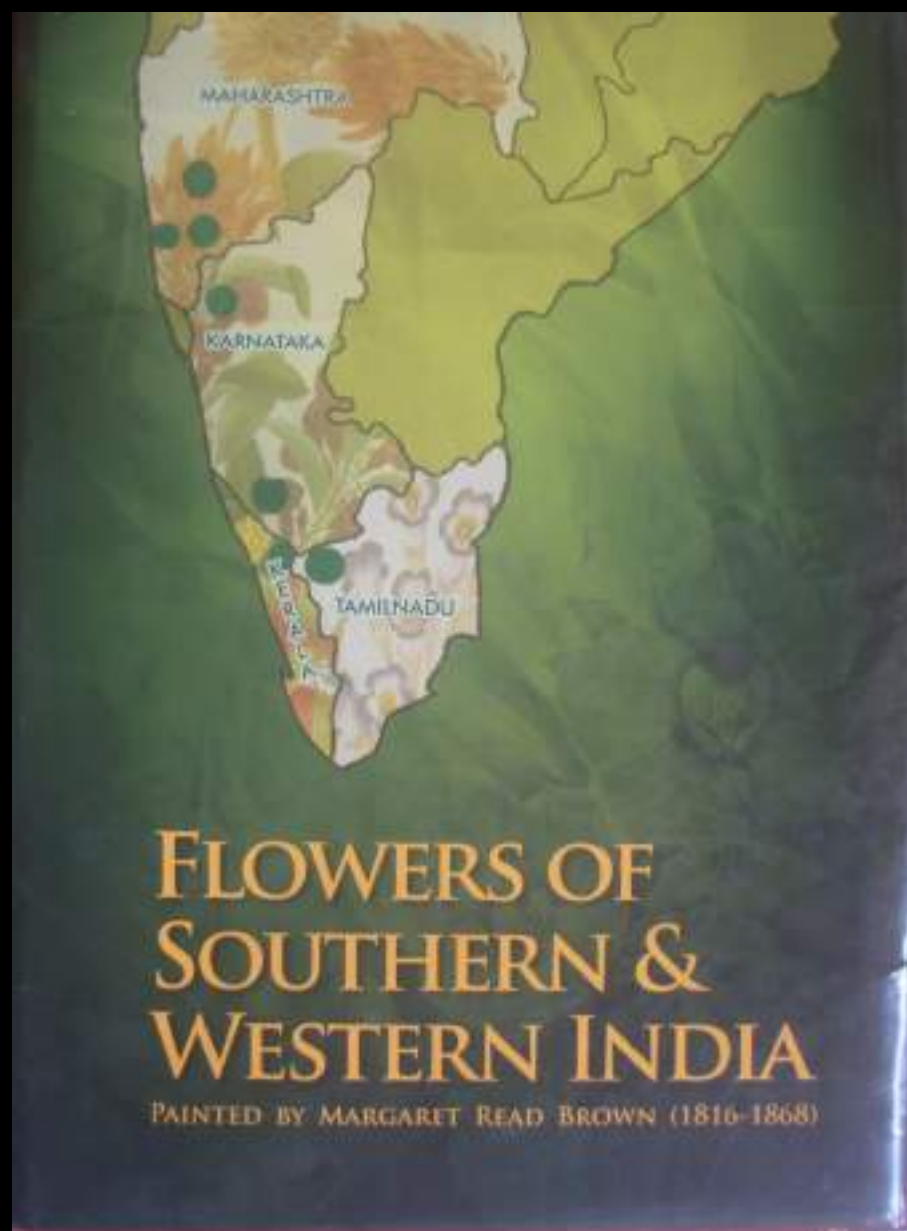
Provided required **information to 64 persons** and institutes in India and UK.

Attended the 250th year celebrations of Kew including the International seminar.

Visited other European herbaria in **Leiden, Geneva, Edinburgh, Liverpool** and **Oxford** in connection with **Fl. India project** and recorded the specimen data. Also consulted the **Natural History Museum, British Museum** and **British Library** in London on several occasions.

IBLO contd....

Found a set of about 100 mid-nineteenth century paintings (at Berkshire) of plants from southern and western India painted by Mrs. Margaret Read Brown, wife of then Major General of British Army in India. Identified all the species and on my initiative, 73 of these paintings have now been published by the High Commission of India, London under the title: *Flowers of Southern and Western India Painted by Margaret Read Brown (1816-1868)*.



July 2013 – till date – Scientist ‘D’ in CNH

Ongoing **Flora of India** project:

Revision of the genus *Fimbristylis* of family Cyperaceae under Flora of India. (ca 120 spp. and 12 infraspecific taxa) 2013-2017

Undertaken Herbarium consultation tours to **BSHC, ARUN** and **ASSAM** in 2013; **BLAT, AHMA** and **BSI** in 2014; **MH, CALI** and **KFRI** in 2015; **PBL** in 2016. Verified the identity of all the available specimens and recorded label data of about 500 specimens in **BSHC, ARUN** and **ASSAM**; about 275 specimens in **BLAT, AHMA** and **BSI**; 674 specimens in **MH, CALI** and **KFRI**; about 800 representative specimens of A/N Islands in **PBL**.

Collection tours to **Silent Valley National Park, Velliangiri hills, Palani hills, Nilgiris, Waynaad forests** and **Athirapally waterfall** areas in 2014 and collected about **460 specimens of Cyperaceae under 151 Fl. Nos. 25 Fl. Nos. from Trichur district of Kerala**; 25 field numbers from **A/N Islands** in 2016.

Made descriptions for 61 species till December 2016 by studying the specimens housed in **CAL, MH** and the loan specimens procured on loan from **ASSAM, BSD, ARUN** and **BSID**.

Identification:

Identified all the **101 field numbers** of Cyperaceae collected from the coastal districts of West Bengal; **34 field numbers** collected from the Nilgiris and part of southern Western Ghats; **10 field numbers** from Trichur district. **160 Field numbers** of Cyperaceae collected by scientists and staff in CNH and CBL from Odisha, West Bengal and Bihar and for college students. It includes specimens from Palkot Wildlife Sanctuary by Sri Vijay Mastakar; from Bihar by Sri Gopal Krishna; by Sri Shyam Biswa from Koderma Wildlife Sanctuary, Jharkhand. Also Identified numerous older specimens of Cyperaceae at CAL.

Corrected the identity of **10 Cyperaceae specimens** during the tour to **BLAT, Mumbai, AHMA, Pune and BSI, Pune**; about **396 old specimens** at **CAL** (incl. loan specimens); about **50 specimens** at **PBL**.

Checked the identity and pasted Determinavit slips on about **350 loan specimens** from **ASSAM, ARUN, BSD, BSJO and PBL**.

Specimens labeled and incorporated: **267 specimens** collected from coastal districts of West Bengal with assistance from Sri Animesh, SPF. **6 specimens** gifted by Prof. G.K. Bhat, Udupi; **14 specimens** collected from the Nilgiris and parts of southern Western Ghats. **50 specimens** collected from Kerala in November 2015

Database:

Prepared a database of **456 specimens** of Cyperaceae received on loan from **ASSAM, BSD, ARUN** and **BSID**; **305 loan specimens** received from **BSJO, PBL, BSHC** and **BSD** on excel sheet.

Incorporated label data of **76 Field Nos.** of Cyperaceae specimens collected from coastal areas of West Bengal; **4 Field Nos.** of Cyperaceae specimens collected from the Nilgiris and part of southern Western Ghats.

Also prepared a database of **674 specimens** consulted during herbarium consultation tours.

A Checklist of family Cyperaceae in India:

Besides the approved project, prepared a **Checklist of Cyperaceae in India**. Collected state-wise distribution data from the available specimens of different genera in **MH, CALI, KFRI, BSI** and **PBL**. (listed **545 spp.** till date).

Most important findings:

New Taxa described: 07

Fimbristylis ambavanensis V.P. Prasad & N.P. Singh

F. nagpurensis V.P. Prasad & N.P. Singh

F. ratnagirica V.P. Prasad & N.P. Singh

F. simpsonii V.P. Prasad & N.P. Singh

Pycreus kanarensis V.P. Prasad & N.P. Singh

Cyperus pachyrrhizus var. *humei* V.P. Prasad

Carex kotagirica A. Maji & V.P. Prasad - (by SPF)

New record for South Asia: 01

Bolboschoenus planiculmis - Gujarat

New record for India: 02

Cyperus conglomeratus subsp. *curvulus*
(Boeckeler) Kukkonen

Carex capillaris L. (by SPF)

Most important findings: contd.....

New record for States:

Karnataka – 10 taxa

Bulbostylis barbata* var. *pulchella*, *Cyperus amabilis*, *C. rotundus* subsp. *tuberosus*, *Eriophorum comosum*, *Fimbristylis consanguinea*, *F. narayanii*, *F. microcarya*, *Scleria biflora*, *Mariscus javanicus*, *Scleria levis* var. *pubescens

Rajasthan – 1 *Neptunia oleracea*

A/N Islands – 1 *Kyllinga polyphylla*

***Kyllinga brevifolia* var. *stellulata* (J.V. Suringar) Hooper ex Ohwi**

– new to Goa, Kerala, Maharashtra, Punjab, Sikkim and Uttar Pradesh

***Fimbristylis merrillii* J. Kern**

– new to West Bengal, Madhya Pradesh, Bihar, Telangana, Uttarkhand and Uttar Pradesh

***Carex polycephala* Boott – new to Jammu & Kashmir (by SPF)**

Most important findings: contd.....

New record for States: contd.....

Kerala *Gynostemma pentaphyllum* – genus new to

Kerala (with Dr. Sampath), *Senna uniflora* – (with Dr. S.V. Pradeep)

Goa (by the Ph.D. student Dr. R. Patil, Pune Univ.) - **20 taxa:**

Carex filicina var. *glaucina*, *Cyperus alulatus*,
C. cyperinus var. *pictus*, *C. digitatus*, *C.*
distans var. *pseudonutans*, *C. excelatus* var.
dives, *C. haspan* subsp. *juncoides*, *C.*
paniceus var. *paniceus*, *C. paniceus* var.
roxburghianus, *Eleocharis acutangula*, *E.*
dulcis, *Fimbristylis alboviridis*, *F. littoralis*, *F.*
merrillii, *F. tenera*, *Lipocarpa squarrosa*,
Pycreus diaphanus, *P. pumilus* var.
membranaceus, *P. stramineus*, *Scleria levis* var.
pubescens

New synonyms: 15

Cyperus atroglumosa Govind., *C. decumbens* Govind., *C. lurida* Govind., *C. plurinodosa* Govind. and *C. stricticulmis* Govind. – reduced to synonyms of *Pycreus malabaricus* C.B. Clarke
Pycreus bolei S.M. Almeida and *P. lanceolotii* S.M. Almeida – reduced to synonyms of *P. pumilus* (L.) Nees

Pycreus plicatus Govind. – a synonym of *P. diaphanus* (Schrad. ex Schult.) S.S. Hooper & T. Koyama

Cyperus latovaginatus Govind., *C. plumbeonucea*, *C. curvibracteatus*, *Pycreus apiculatus* and *P. opulentus* Govind. – reduced to the synonyms of *P. diaphanus* var. *gracilescens* (Kük.) S.S. Hooper.

Pycreus palghattensis Govind. – reduced to the syn. of *P. pumilus* (L.) Nees

P. similinervulosus Govind. is reduced to the synonym of *P. pumilus* var. *membranaceus*.

All the varieties of *Pycreus flavidus* with typical *P. flavidus*

Cyperus pentabracteatus Govind. & Hemadri – reduced to synonym of *Cyperus blatteri* (McC.) Wad. Khan

Most important findings: contd.....

New combinations: 05

Cyperus laxus subsp. *macrostachyus* (Boeck.) V.P. Prasad & N.P. Singh

Cyperus eglandulosus (Govind. & Ramani) V.P. Prasad & Govaerts

Cyperus kanarensis (V.P. Prasad & N.P. Singh) V.P. Prasad & Govaerts

Cyperus mahadevanii (Govind.) V.P. Prasad & Govaerts

Cyperus pyramidalis (Govind.) V.P. Prasad & Govaerts

New name: 01 *Cyperus munnarensis* V.P. Prasad & Govaerts

= *Pycreus fasciculatus* Govind.

Taxa re-instated in Fl. India: 02

Cyperus digitatus var. *hasianus* (C.B. Clarke) J. Kern

Cyperus pertenuis Roxb.

Species excluded from Flora of India: 03 *Cyperus ohwii* Kük.,

C. scariosus R.Br., *Juncellus stylosus* (C.B. Clarke) C.B. Clarke

Species excluded from State Floras: *Cyperus alternifolium*, *C.*

fuscus, *F. glabra*, *Diplacrum reticulatum*, *Fuirena*

pubescens, *F. tuwensis*, *Pycreus flavescens* – all from

Karnataka, *Fimbristylis salbundia* – southern India.

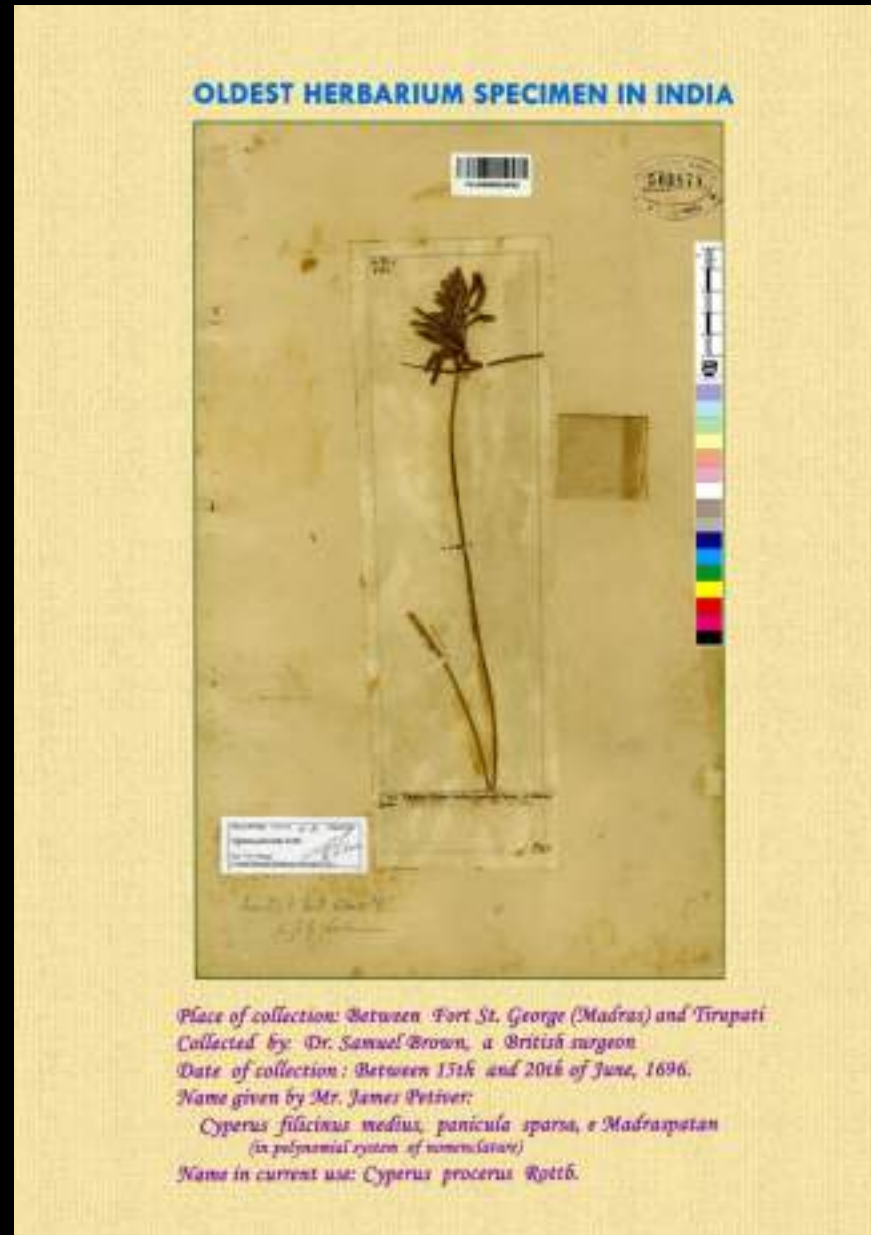
Lectotypifications made for: *Cyperus multispicatus* Boeckeler,

C. kurzii C.B. Clarke, *C. blatteri* (McCann) Wad.Khan, *Pycreus*

similinervulosus Govind.

Oldest collection in India

Most important findings:
contd...



Publications:

Books published: 03 Book under publication: 01

Papers published: 55, communicated: 02

Papers presented: Many

Paper reviewed: Few (mainly for *Rheedea*, 03 for *BOBSI/Nelumbo* and *J. Econ. Taxon. Bot.*)

Ph.D. Thesis evaluated: 04

Important seminars/conferences attended:

BNHS Centenary celebrations and Seminar at Bombay (1983)

BNHS Internal seminar at IISc, Bangalore

250th year celebrations of Kew including the International seminar 2010.

International Conferences of IAAT at Pune (2006), at Calicut University (2015) and at Kolhapur (2016).

Salim Ali Festschrift seminar at Bombay (1986).

National Seminar on World Environment Day at Cochin to honour Prof. M.K. Prasad, well-known Environmentalist (2013).

Presentations were done also at Agharkar Res. Institute, Pune; CMS College, Kottayam; SNM College, Maliankara and CNH, Howrah.

Prof. V.V. Sivarajan Gold Medal from IAAT for the year 2016



Research Students: One student **Mr. R.T. Patil, Asst. Prof.** got his **Ph.D.** from the University of Pune for the thesis entitled “**TAXONOMIC STUDIES ON FAMILY CYPERACEAE IN GOA WITH ADDED EMPHASIS ON NUT MORPHOLOGY**”

Supervised the work of **Mr. Animesh Maji, SPF**, checked and corrected the descriptions of **70 species** of **Carex** prepared by him. Also he has prepared the database of 120 specimens of **Kyllinga**.

Also **4 M.Sc. students** did their project work and submitted dissertation .

Identification service: In CNH issued about **300 plant identification certificates** during 2013-16, mostly for research students, other institutes and to the State Excise Department. (Identification of the plants was coordinated by Sri K.L. Maity, Curator (now retired) and Sri Shyam Biswa, Bot. Asst.

Training Imparted:

Served as a resource person in the workshop on Capacity Building on Plant Taxonomy - held at the TNB College, Bhagalpur, Bihar and delivered a talk on **Collection, Preservation and Identification of Sedges (Cyperaceae)** on 25.2.2015.

Took part as a resource person in the **workshop on Capacity Building on Plant Taxonomy** conducted by ENVIS Centre, CNH, Howrah for the University/College students and teachers.

Monitoring of Botanical gardens:

While in Pune did the **monitoring of few botanical gardens in Maharashtra** which received financial assistance from MoEF, N. Delhi

Assessment of project proposals:

Assessed many **project proposals for financial assistance from MoEF, New Delhi and Kerala State Council for Science, Technology and Environment**, Thiruvananthapuram.

Internal seminars/talks arranged:

Arranged more than **50 talks** for the Scientific/Technical staff, Research Scholars and Scientists of BSI, Howrah/Kolkata. Also With assistance from other officers and staff members **co-ordinated the Celebrations of International Day for Biodiversity** during 2014 and 2015 and arranged 16 talks for the invited College/University students and teachers, and scientists and other scientific staff of BSI, Howrah/Kolkata.

Important Visitors: In the absence of regular HoO, organized the visit of the following dignitaries in CNH.

Sri Omkar Singh, PCCCF, Andaman & Nicobar Islands

Dr. G.V. Subramanyam, former Adviser to the MoEF.

Prof. C.R. Babu, Delhi University

Mr. Bruce Maslin, Singapore Botanical Garden

Dr. Sarder Nasir Uddin, Sr. Sci. Officer, Bangladesh National Herbarium, Dhaka

Administration:

Being the second Officer, functioned as In-charge of the centre in the absence of regular HoO, both in BSI, Pune and in CNH, Howrah, including the continuous six months in the absence of Dr. P.S.N. Rao.

Certified various pending entries of leave availed, LTC and service verification in the Service book, etc. of all the group 3 staff.

Functioned as Chairman of the purchase Committee of CNH, called meetings as and when required in connection with purchase of various items and for AMC of equipment in CNH, pest control in the herbarium. Also took initiative in installation of CCTV Surveillance System in CNH.

Reviewed the APAR of staff members of CNH.

Functioned as chairman of the Tender Evaluation Committee for arranging the services of a driver, 3 security personnel and 2 housekeeping/cleaning personnel

Functioned as the Vehicle In-charge of CNH during 2011-12

Functioned as DDO as and when required in BSI, Pune.

Attended Court matters regarding the CNH land at Danesh shake Lane, Andul road from 2013 to 2015.

Attended the following training programmes:

Capacity building training workshop on Administrative rules and Regulations for the administrative and scientific officials - imparted by ISTM and organized by BSI in association with MoEF & CC.

Training in Utilisation of IT tools in Government – organized by National Informatics Centre, Pune.

Training in Disciplinary Proceedings conducted by the National Institute of Public Administration, Bangalore.

Future Plan

To complete revision of the genus *Fimbristylis* for the Flora of India project by 2019.

To edit the Cyperaceae part of Flora of India project till retirement in May 2020.

Thanks

