

Remembering Professor S. S. Bir

(28th August 1929 - 26th August 2015)



In memory of Professor Surmukh Singh Bir, I would like to share some words on behalf of his students, his colleagues and the wider botanical fraternity.

Professor S.S. Bir was a renowned Evolutionary Botanist and was known for his comprehensive Biosystematics and Phytogeographic studies in more than 500 species of higher vascular plants of India. These include Ferns and fern allies (Pteridophytes) from different floristic regions of India representing Himalaya, Central India (Pachmarhi Hills) and South India (the Nilgiris and Palni Hills). Prof. Bir was credited with the discovery and naming of more than one and a half dozen new taxa of ferns. Collaborating with his Ph. D. students, Dr. Bir's studies extended over five decades covering weeds of cultivable lands, legumes, grasses, sedges, Labiatae, Acanthaceae and woody flora from different phytogeographical regions of India and these have helped in identifying evolutionary trends and mechanisms of species diversification of Indian Flora. At Patiala leading a strong centre of cytogenetics at Punjabi University, Dr. Bir and his students have greatly contributed towards Chromosomal analysis of Indian Flora. Conservation strategies suggested by Bir have been highly appreciated in India and abroad.

Professor Bir was born on 28th August 1929 at Shahpur near Ambala Cant., Haryana and passed away on 26th August, 2015 at Patiala, Punjab, India. He obtained

his F.Sc., B.Sc. and M.Sc. in Botany from Khalsa College, Amritsar and Ph.D. in Botany from Panjab University Chandigarh. His Ph.D. supervisor was Professor P. N. Mehra. For his contributions in Botany especially Pteridology, Professor Bir received many honours and great recognition. He received fellowships from Indian National Science Academy (FNA), National Academy of Sciences, India (FNASc), Linnean Society, London (FLS), Punjab Academy of Sciences (FPASc), Indian Botanical Society (FIBS), Society of Cytologists and Geneticists, India, Indian Fern Society and several others. His awards included P. Maheshwari Medal (Indian Botanical Society, 1990); Platinum Jubilee Lecture, ISCA (1994); Dr. H. Santapau Medal, Association of Plant Taxonomists for the year 2002. He was awarded Distinguished Fellow, Indian Fern Society (2002-2008) and also got Life Time Achievement Award (Indian Fern Society, 2008).

Professor Bir shared his research results and experiences with the Botanical fraternity by participating in and contributing to conferences all over the world. He chaired many such conferences. He was President, Section of Plant Sciences, Indian Science Congress Association (1988) and President, Section of Bryophytes and Pteridophytes during symposium at McGill University, Montreal (1983). As a visiting Professor/Scientist, Prof. Bir visited a large number of Universities/Institutes in USA, France,

Canada, Great Britain, Switzerland, Sweden, Pakistan and China.

Professor Bir Joined as founder Head, Department of Botany, Punjabi University, Patiala on 1st February, 1967. He steered fifteen formative years of the department that grew very well into a very active School of Botany with research activities centering around Cytogenetics, Biosystematics, Reproductive biology, Morphology and Anatomy of Ferns & Fern allies and flowering plants, Taxonomy and Physiology of Algae and Fungi. Besides Head of the department Prof. Bir was part of university administration and was Officiating Vice-Chancellor (October – December, 1979), Dean Academic Affairs (1975-1976, 1978-1980) and Dean Faculty of Life Sciences (1977-1980) to mention some. After retirement he continued his academic pursuits and was Professor Emeritus (1991-2015), CSIR-Emeritus Scientist (1991-1995), INSA Senior Scientist (1995-2000), INSA Honorary Scientist (2001-2004, 2006-2009) and Life Fellow Punjabi University, Patiala (2010-2015),

Professor Bir made remarkable research contributions in the field of Pteridophytes and Plant Sciences as a whole and published about a dozen books and over 300 research papers. Chromosome Atlas of the Indian Pteridophytes

(2010); Flora of Patiala (1978); Flora of Darjeeling & Sikkim Himalaya (1964) are his highly acclaimed books. He edited Journal of Cytology & Genetics (1983-1992) and Indian Fern Journal (1984-2001, 2004-2008).

He had a great passion for natural history museums and botanical gardens. During his stewardship the department was able to establish well developed Herbarium & Museum and Botanic Garden which are rated among the best in the Indian Universities and both have been recognized by international organizations. He was chairman of planning Committee for Govt Botanical Garden at Chandigarh.

Prof S. S. Bir was a strong, determined, forthright, hardworking, dedicated person with boundless energy and drive, yet magnanimous, an outstanding scholar and teacher. Prof. Bir was an unrivalled source of advice, direction and inspiration to me and to all of us associated with the Department of Botany, Punjabi University, Patiala.

Prof. M.I.S.Saggo

Department of Botany,
Punjabi University, Patiala-147002, India
Email: msaggo@rediffmail.com

COMMAMORATIVE NAMES

Aspleniaceae

Asplenium unilaterale Lam. var. *birii* B.K.Nayar & Geev. -- Fern Fl. Malabar 289 (1993). 1993 (IF)

Polypodiaceae

Pyrrosia mannii Ching var. *birii* P.C.Pande & H.C.Pande -- Ill. Fern Fl. Kumaon Himalaya 1: 97 (2003).

Aspleniaceae

Asplenium birii (Á.Löve & D.Löve) Bir, Fraser-Jenk. & Lovis -- Fern Gaz. 13(1): 61. 1985

Aspleniaceae

Ceterachopsis birii Á.Löve & D.Löve -- Taxon 26(2-3): 326, nom. nov. 1977

Dryopteridaceae

Polystichum birii Jamir & R.R.Rao -- J. Jap. Bot. 58(12): 376. 1983

Polypodiaceae

Pyrrosia birii P.C.Pande & H.C.Pande -- Indian Fern J. 11(1-2): 98, without latin descr. or type. 1995 [1994 publ. 1995]

Thelypteridaceae

Cyclosorus birii (R.D.Dixit & Balkr.) Panigrahi -- Pl. Sci. Res. (India) 17(1-2): 51 (1995):. 1995

Thelypteridaceae

Pronephrium birii R.D.Dixit & Balkr. -- Indian Fern J. 7(1-2): 20, figs. 1-5. 1990 [25 Dec 1990]

* Vitaceae

Ampelocissus birii P.Singh & B.V.Shetty -- Fl. Kerala 1: 738. 2005 [15 Dec 2005]

Woodsiaceae

Athyrium birii (Ching ex Bir) Seriz. -- J. Jap. Bot. 56(7): 195. 1981

Woodsiaceae

Cornopteris birii Ching ex Bir -- Nova Hedwigia 7: 502, t. 34, 35. 1964. 1964

Woodsiaceae

Deparia × *birii* Fraser-Jenk. -- Taxon. Revis. Indian Subcontinental Pteridophytes 249 (-250). 2008 [27 Nov 2008]