Professor S. C. Srivastava- A Living Legend of Indian Bryology

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This article is an effort to admire the attainments of Professor Suresh Chandra Srivastava in the field of Indian Bryology.

1. Introduction

It is a pleasure and an honour to write about one of the most eminent bryologists and my ‘Guru’ Prof. Suresh Chandra Srivastava. He was born on December 1, 1944 in Gorakhpur (U.P.) India, where he completed his graduation then he came to University of Lucknow as Post Graduate student in 1964. From the very same institute he got his PhD in botany in 1970 under supervision Prof. Ram Udar, one of the pioneers in bryological research in India. He started his career in 1971 as Lecturer in Botany in University of Lucknow. In 1985, Prof. Srivastava got the position of reader in botany and later became the Head of Bryology Unit. During his tenure he did splendid work on bryophytes along with quality teaching. In 1995 he became Professor of botany and later served as Head of the department from 2003 to 2006, which brought forward his hidden administrative skills. During his career he visited several herbaria/ Laboratories of botanical interest at Gottingen, Germany, Jena; Riksh herbarium, Amsterdam, University of Utrecht (The Netherlands) and Cryptogamic Laboratory, Paris (France) and also attended several International workshops and conferences.

The work done by Prof. Srivastava is so exhaustive pertaining to almost every facet of Bryology that one could inscribe a manuscript about all his merits for bryological research, which is away from my capabilities. However, I would like to point out at least some remarkable facts that exemplify Prof. Srivastava’s work and authority. He is an eminent fellow of many associations and organizations like Indian Botanical Society (IBS), Palaeobotanical Society, Association of Plant taxonomists, and National Academy of Sciences [(F.N.A.Sc.), India]. He also held the prestigious position of Secretary, Indian Bryological Society and Vice-President, Association of Plant
Taxonomists (APT). He is a well deserved recipient of Santapau Gold medal (2006) for his remarkable contribution in the field of bryology. Prof. S.C. Srivastava has made significant contributions to the knowledge of biology of Bryophytes with special reference to taxonomy of almost all important groups of Hepaticae and Anthocerotae. Contributions made by him relate to various aspects of bryophytes including morpho-taxonomy, palynology, developmental morphology, reproductive biology, and diversity and distribution of liverworts (Hepaticae) and hornworts (Anthocerotae) in India (Srivastava, 1993, 1998). He had inclination in the assessment of bryo-diversity in the liverwort and hornwort flora of India and ex-situ conservation of some rare, endemic and endangered species in-vitro culture. He has established in-vitro culture facility and a good internationally recognized herbarium (LWU) representing the largest collection of bryophytes in India housing several types and more than 20,000 authentic specimens of bryoflora of India. He inspired several students and 12 of them received their PhD degree under his supervision. It is worth to mention that the Bryology unit in the Botany Department, Lucknow University was the foremost centre of bryophyte research in the country under his leadership. During his time period University Grants Commission, New Delhi had identified Bryology as one of the thrust areas of research in Botany under the special assistance program, and the Ministry of Environment and Forests, Government of India, New Delhi had identified the Bryology unit of Botany Department, Lucknow University under his supervision as one of the collaborating centers of bryophyte research in the AICOPTAX-Taxonomic capacity building program. 

Mention may be made of some of his noteworthy work on the discovery of phylogenetically significant order Buxbaumiales in the bryoflora of India (Udar, Srivastava & Kumar, 1970), Phytogeographical considerations and distribution of Calobryales with two genera Hapломirtium and Calobryum known from the eastern Himalayas (India). Interestingly, out of a total of 14 species in the world, six species are found in the eastern Himalayas, India, which is by far the maximum number of species known from a single geographical region on the globe, possibly suggesting thereby the eastern Himalayas to be the centre of origin and speciation of Calobryalean elements (Chandra, Kumar and Srivastava, 1987). The discovery of a remarkable mechanism of dehiscence of capsule by a ’double spoon method’ in Hapломirtium hookeri (Udar and Srivastava, 1981) is unique in the entire group of hepaticae earlier reported only in Calobryum dentatum (Udar and Kumar ). Besides, his contributions on sporeling development in Exormotheca ceylonensis (Udar and Srivastava, 1968), Pressia quadrata (Udar and Srivastava, 1970), Cyathodium aureomontis (Udar and Srivastava, 1978), Fossombronia cristula (Udar and Srivastava, 1972), F. kashyapii (Udar and Srivastava, 1975a) F. wandrackzkeii var loitlesbergeri (Srivastava and Sharma, 1995) and Lophocolea bidentata (Udar and Srivastava,1975b) support phylogenetic relationships between Marchantiales, Metzgeriales and Jungermanniales. His pioneering work with his late Guru on the structure of oil-bodies in Indian liverworts (Udar, Srivastava and Kumar, 1970) paved the way for taxonomic investigations and identifications of leafy liverworts which remained neglected for nearly four decades after Kashyap’s contributions. His taxonomic survey of Indian liverworts and hornworts brought into light the publication of comprehensive monographs for the first time ever since the publication Kashyap’s volumes on west Himalayan Liverworts over four decades ago. This includes taxonomic monographs on Indian Metzgeriaceae (Srivastava and Udar, 1975), Aneuraceae (Srivastava and Udar, 1976), Indian Hornworts (Asthana and Srivastava, 1991) Indian Lepidoziineae (Sharma and Srivastava, 1993), Indian Geocalycaceae (Srivastava and Srivastava, 2002) and Indian Cololejeuneas (Asthana and Srivastava, 2003). This was a welcome trend in Indian Bryology and a number of regional and global generic monographs were published on the genera Fossombronia (Srivastava and Udar, 1975), Cheilolejeunea (Asthana, Srivastava and Asthana, 1995), Lopholejeunea (Awasthi, Srivastava and Sharma, 1999), global monograph on the genus Cyathodium (Srivastava and Dixit, 1996), and Plagiochila (Rawat and Srivastava, 2007).
He is credited with over 140 research publications in standard refereed Journals of India and abroad. He had instituted 40 species including a few varieties and some species new to science and added a large number of taxa as new records for the Indian subcontinent. Indian Bryology in the hand of Professor Srivastava appears safe for years to come. He is often invited to deliver key/specialized lectures in Bryology in different Universities and Institutes of the country. New equipments and tools for photographing, computers, and scientific publishing has always lured Prof. Srivastava. He always encourages his students to explore new techniques and approaches in the field of Bryology. In respect to this excellent bryologist, recently, Verma and Rawat (2013) have instituted a species of *Lejeunea* as *L. srivastavae*.

And, Sir, I hope you will enjoy reading your noble contributions in this form. I wish that you will guide us for years to come.

### 2. List of Contributions made by Prof. S. C. Srivastava:

#### Books and Monographs

**Global:**

**Regional:**

#### CHAPTERS CONTRIBUTED IN BOOKS:
1. BRYOPHYTA: MORPHOLOGY, SYSTEMATICS, REPRODUCTIVE BIOLOGY. In Botany in India, History and Progress (Ed. B.M. Johri), 387-436, 1994

LIST OF RESEARCH PUBLICATIONS:


3. Acknowledgments

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4. Bibliography


