

# **Jatish Chandra Sengupta : (1900-2000)**

## **An outstanding Scientist, a great Administrator and an illustrious Teacher**

In the history of botanical sciences, Professor Jatis Chandra Sengupta must be ranked as one of the most outstanding personalities.

Dr. Sengupta was born on 15th December, 1900 in the village of outshahi in Vikrampur, Dacca (now in Bangladesh). Vikrampur has given to India many worthy children who have contributed mightily to the heritage of the land.

His father, Satish Chandra Sengupta was in Railway Service, his mother Surama a cousin of Kshitimohan Sen was deeply religious without being dogmatic. Her humane values exerted a great influence on the life of Jatis Chandra. His father was also a man of wide outlook, and a liberal mind.

He had his school education in Dacca. He passed the matriculation examination in 1917 from the Calcutta University with great distinction and came to Calcutta for higher studies.

He joined the Bangabasi College and passed his I.Sc. and B.Sc. examinations from that college. He was inspired by the teaching of Acharya Girish Chandra Bose, who is aptly known as the 'Father of Bengal Botany'.

**D. N. Guha Bakshi\***

After passing his B.Sc. in 1921, he took his M.Sc. degree in Botany from the Calcutta University in 1923, was ranked first in the first class and won the gold medal.

The environment of the Ballygunge Science College stimulated him to dedicate himself to research.

He was awarded a university scholarship and began his researches on the biology, pollination, setting of fruits, germination as well as on *myxomycetes* (slime fungi), under the guidance of Prof. P. Brühl, the then university Professor and Head of the Department of Botany. His researches during the period led to the publication of two papers (jointly with Professor Brühl) in the Journal of the Department of Science, Calcutta University.

Prof. Brühl was so much impressed by his tenacity and ability that he advised Jatis Chandra to go to Germany and to work under Dr. Ludwig Jost, one of the leading Plant Physiologists of the world at that time who was based in the University of Heidelberg, Germany. Prof. Brühl made all necessary arrangements and paraphernalias for the study. He then left for Germany in September, 1926. Professor Sengupta worked with great zest and zeal for two years and got the Dr. Phil. Nat. degree in 1928 for his dissertation on "Investigation on Rheotropism" which was acclaimed highly by serious botanists everywhere.

On his return to India in 1929, he joined the Presidency College, Calcutta as a teacher as Professor of Botany. He became Head of the Department of Botany in 1939. He continued in this post till 1950, when he became the Principal of Presidency College, Calcutta (Incidentally, he was the first Botanist to adorn this post and so far no other Botanist has attained this distinction.) During his stewardship of the Department of Botany he made

notable contribution on Osmotic potential and absorption of various plants of different phytogeographical regions of India—both of higher altitudes, alpine flora and also of salty Sundarbans and plains of Bengal. The results of these investigations were published in the sesqui-centenary volume (150 years) of the Royal Botanic Garden (now Indian Botanic Garden), in 1938, edited by another stalwart of Botany and a great friend of Dr. Sengupta, Dr. Kalipada Biswas, the first Indian Superintendent of the Garden. Later on, Dr. Sengupta turned his attention to physiology of flowering, vernalization and photo-periodism and made important contributions in those areas.

He also carried out extensive investigation on the hormonal control of fruit set and rooting of cuttings and studied extensively the effects of nutrient deficiency of jute plants, rationalising the problems of manuring. He had a fine band of workers, notable among whom were N. K. Sen, S. K. Pain, Gita sen, Sumitra Talukdar, B. P. Guha, S. K. Chattopadhyay, J. R. Saha, B. B. Das. I also had the privilege of working under Dr Sen gupta. His research interest which included work on water-hyacinth and water melon. He published more than 50 papers in national and international journals. He was an outstanding teacher, very methodical, and with great clarity of expression. He was very genial and the students found in him a friend, mentor and guide.

As principal of the College, he initiated in setting up a separate Postgraduate department in Botany in 1952, in which the writer was one of the first students.

During his tenure, as Principal of the Presidency College, Calcutta, the Indian Science Congress Session was organised in the college.

In June 1955, during his stewardship, the centenary celebration of the Presidency College, Calcutta (1855-1955) was solemnised with great pomp and grandeur. The function was presided over by Dr. Rajendra Prasad, the first President of the Indian Republic and an alumnus of the College. Dr. Rajendra Prasad initially began his speech by addressing Dr. Sengupta as 'Sriman Principal'. The function took on the character of a carnival and was a grand success.

In 1951, he was instrumental in setting up the Presidency College Alumni Association and he served its first Secretary and with Atul Chandra Gupta as its first President.

In 1952 he invited Dr. Rajendra Prasad, the first President of the Indian Republic to come down to Calcutta to visit his old College and hostel.

Throughout his tenureship in the Presidency College, he was an enthusiast in sports and everybody was highly impressed by his tenacity and sagacity.

In his heydays, he played lawn tennis regularly. He was an ardent lover of Football and Cricket as well. He was a regular member of the University Rowing Club, Calcutta.

Dr. J. C. Sengupta was invited by the Government of India to shoulder the responsibilities of the Chief Botanist of India. He accepted the offer and joined on 1st October, 1955 in the then Headquarters of the Botanical Survey of India at 14, Madan Street, Calcutta. He plunged into the work of the BSI with his characteristic zeal, and during his time, the survey attained new height in the range and depth of the work done.

Dr. Sengupta had the privilege of expanding and organising the four regional circles of the BSI—Eastern at Shillong, Northern at Dehradun, Western at Pune (Poona) and Southern at Coimbatore. Detailed programmes of Scientific work were formulated and the first batch of senior officers were appointed.

He also took pains to establish links of the new born survey with other institutions working in related areas. He also took great care in reprinting classic of regional flora such

as Prain's *Bengal Plants*, Cooke's *Flora of Bombay Presidency*, Duthie's *Flora of Upper Gangetic Plains*, Gamblis *Flora of Madras Presidency* and Haines's *Botany of Bihar and Orissa*. These monographs were indispensable for later research workers in the same field.

On behalf of the BSI, he took over the charge of the Calcutta Herbarium from the Indian Botanic Garden in 1957 and redesignated it as the *Central National Herbarium* (CNH) (which is technically known as *Herb. CAL* throughout the scientific world). The proper setting up of the Orchidarium in at Shillong circle at yercaud in the Southern circle were the pioneering achievements of Dr. Sengupta.

He also initiated the setting up of the Central Botanical Laboratory (CBL) with modern equipment; at the same time he initiated systematic works under the BSI—Organising Chemical, Ecological Pharmacognostic studies and introducing an Economic Botany section.

He made epoch making efforts in the field of documentation and modernising libraries.

Dr. Sengupta was instrumental in publishing the BOBSI (Bulletin of the Botanical Survey of India) in 1959 and his contribution to it on Botanical Survey of India—past, present and future, is an eloquent proof of his depth and insight on the topic.

Under the Colombo plan initiated cultural exchange of the scientists and revived the post of an Indian Botanist at Kew Garden, London. Not content with all this, Dr. Sengupta launched botanical expeditions from oceans to mountains and in difficult and inaccessible terrains, as he himself was a man of an adventurous bent of mind.

In the languages of late K. S. Srinivas, Ex-Deputy Director of the Botanical Survey of India, "considering the moribund state of the Botanical Survey of India before reorganisation, and the impact of his personal efforts on various lines indicated been ushered, surely one can not but admire the dynamic state to which the survey has now been ushered into, and unhesitatingly admit that all the undertakings carried out by Dr. Sengupta were of great value."

Dr Sengupta retired from the services of the BSI on 01.06.1961. Later, he joined the Board of Secondary Education, West Bengal as President (Administration). He infused new life in the administrative affairs of the Board.

Dr. Sengupta's services to science were duly recognised by his being elected as a Fellow of National Institute of Sciences of India, President of the Botany section (Baroda session in 1955) of the Indian Science Congress Association, President of the Botanical Society of Bengal (now National Botanical Society), the Indian Science News Association, and the Indian Society of Plant Physiology. He was also elected Biological Secretary, Asiatic Society, Secretary, Indian Society of Soil Science and Fellow of the Botanical Society of India. He was closely connected with the Birla Industrial and Technological museum, Calcutta, in its formative stage.

For his outstanding Scientific contribution, he was awarded the Paul Johannes Brühl memorial medal by the Asiatic Society, Calcutta.

Dr. Sengupta was a member of the Senate and Syndicate of the Calcutta University, member of the Karma Samiti, Viswa Bharati University, the Bose Institute, Kalyani University, North Bengal University, National Botanic Garden, (now known as the National Botanic Research Institute), Lucknow, and many other scientific and educational institutions. He was also a member, Board of Trustees, Indian Museum, Member, Tea Research Committee of the Indian Tea Board. The Council of Scientific and Industrial Research chose him as a member of its Medicinal Plants committee, Wildlife committee, State Agricultural committee,

West Bengal and many other committees. The Indian Council of Agricultural Research also imposed similar responsibilities, all of which he carried out with exemplary thoroughness.

Dr. Sengupta had his personal friends in eminent scientists including Dr. K. P. Biswas, first superintendent of Indian Botanic Garden, Dr. D. M. Bose, Ex. Director, Bose Institute, Profs. Atul Chandra Datta of Cotton College, Guwahati, Prof. Sourindra Mohan Sircar, Prof. Sachindra Nath Dasgupta, of the Department of Botany Lucknow, and later Vice-chancellor Kalyani University, Dr. J. N. Mukherjee, the eminent soil scientist, and Prof. Sisir Kumar Mitra the eminent Physicist and many others.

Among his distinguished students, the names of Prof. Arun Sharma of the Calcutta University, Prof. S. P. Sen, erstwhile Prof. of Botany, Kalyani University, Prof. Satyabrata Sarkar of Max Planck Institute, Germany, Professor Sandhya Mitra, the late Prof. Nirode Kumar Sen of Indian Institute of Technology, Kharagpur, Late Kumud Chowdhury, Sri Kanak Lahiri, and Sri Prabir Guha Thakurta of the Indian Forest Services and many others.

Dr. Sengupta had a benign personality, quiet in temperament, active in habits, obliging by nature, loved and admired alike by his friends. He was a father figure to his students but his patriarchy was laced with a strong sense of humour.

Outwardly, he appeared to be hard and reserved, when he was in office. But whenever, anybody came to discuss his personal problem with him, he found that he had a golden heart.

Dr. Sengupta was a cordial host as well.

He was blessed with a happy family. Mrs. Nilima Sengupta was a great source of inspiration to him. Dr. Sengupta's only daughter, Dr. (Mrs.) Jasadhara Bagchi, Retired Professor of English of the Jadavpur University was a brilliant student of the Calcutta University with a stamp of exquisite qualities and his son-in-law, Dr. Amiya Kumar Bagchi, an eminent economist of international fame, was a Professor of the Presidency College, Calcutta and the Director of Centre for Studies in Social Science, Calcutta. Both of them won many laurels in India and abroad.

On Tuesday, the 21st January, 1969, Dr. Sengupta, went through all his routine work, put on his usual neat dress and bade adieu to the members of his family including his granddaughter Tista to go to the Examination centre, in the Department of Botany in the Ballygunge Science College of Calcutta University. He had a sudden massive heart attack and passed away just before he had reached the portals of the Examination hall, at around 10.00 A.M.. It was characteristic of his whole life that he should have died while still trying to carry out his self imposed duty. Mrs. Nilima Sengupta has also gone to heavenly abode on 18th January, 1977.

In November, 1955, the then Russian President, Marshall Bulganin and Nikita Krushchev, the then Prime Minister of Russia, came to visit India and Dr. J. C. Sengupta, as Chief Botanist of Botanical Survey of India was called upon to show them different educational institutions of Calcutta including the Indian Botanic Garden.

In all humility, I think that the late Prof. Jatis Chandra Sengupta by his dynamic thought and action, tried to usher in a new horizon in the botanical researches—from classical to modern trend.

May he shed light and blessings on all of us.

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\* Botany (1952-54)