

BOTANIST JAYKRISHNABHAI: 1849-1929

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Abstract

Jaykrishna Indrajī was born in 1849 AD in Kutch. His early education was up to 4th standard high school stage. He came in contact with Dr. Bhagvanlal, a well known archaeologist and Ayurvedic Vaidya. He learned Botany from Dr. Sakharam Arjun, Professor of Botany, Grant Medical College, Bombay (Mumbai). Later he came in contact with Dr. Campbell, Dr. Mac Donald, Mr. Birwood, author of “Flora of Mahabaleshvar”. He became a Curator of forests and garden, of the then Porbandar State, Gujarat. He studied the vegetation of Barda Mountain and after retirement published “Flora of Barda mountain” in Gujarati. Later he wrote “Plants of Kutch and their utility”, established “Tree Plantation Society” in Kutch and studied the ecology of sand dunes. He died in the year 1929. Gandhiji in his tribute praised his single mindedness and self confidence.

Key words: Botanist Jaykrishnabhai, Flora of Barda Mountain, Plants of Kutch, Porbandar

1. Introduction

In the year 1949 during my M.Sc. studies in Botany at the then Royal Institute of Science, Bombay (Mumbai), I remember having attended the Birth Centenary meeting for Shri Jaykrishna Indrajī, in which Late Dr. R D Adatia, the then Professor of Botany, Bhavans College, Andheri (Mumbai suburb) and Late Dr. T S Mahabale, my teacher at the Institute were present. This left a deep impression on my young mind. When I was a lecturer in Botany at M.T.B. College, Surat, I got a copy of the biography of Jaykrishnabhai published in Gujarati in 1931 and authored by Late Bapalal Shah, a distinguished Ayurved, Sanskrit scholar, and the Principal of a new Ayurvedic college (priced at one rupee and fifty paise). His life contributions were a signal of indefatigable and self sacrificing devotion to Botany. With the financial assistance of the Indian National Science Academy under its History of Science Programme, I translated the book in English, and Charutar

Vidya Mandal, a premier educational trust in Gujarat published it in 1998. The book is out of print since many years. Here it is an attempt to give a glimpse of life and contributions of Jaykrishnabhai who laid the foundation of taxonomic research in Gujarat and set an example of service to Science.

Jaykrishna was born in Lakhpat village of Kutch in the year 1849 AD. People born in this deserted region of Gujarat are usually daring and gutsy. His father Indrajī was a priest in the temple at a nearby place and after retirement settled in Lakhpat as a guard to the entry of the village. Jaykrishna, a fourth son had four brothers and two sisters. He and his father lived as Brahmin mendicants as other brothers lived outside the village.

After his father’s death, he stayed with his elder brother in another place. Later he served as a cook for a priestess who lived in Sindh (now in

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Pakistan). At the age of 13-14 years he went to Mumbai to stay with his another brother. He joined the school. He thus recalls his school days "I beg for money to pay my school fees and books. I studied under the street lamp. I left my studies from the fourth standard as I could not pay the monthly fees of a rupee". He went with his brother to Mathura and became a bookseller, but he closed his business and returned to Mumbai because of his ill health. He went to Dr. Bhagvanlal Indraj, Ph.D., a well known archaeologist and Ayurved expert for treatment. Jaykrishna got interested in his activities of preparing facsimiles, collecting and identifying plants and knowing their local names. He started studying Hooker's *First Book of Botany* and preparing herbarium specimens, with his elementary knowledge of English and absolute unfamiliarity of technical terms, it was a difficult task. But when he asked Dr. Bhagvanlal that he had finished reading Hooker's book, he was then advised to meet Dr. Sakharam Arjun, who occupied the chair of Botany in Grant Medical College.

This was a beginning for Jaykrishna to be a botanist. He went with great hesitations to Dr. Arjun with a bundle of herbarium specimens and requested him to help him in their identifications. Dr. Arjun was impressed with him and thus developed their friendship. Now he started collecting plants in and around Mumbai and became familiar with their Scientific, Gujarati and Marathi names.

Jaykrishna's association with Dr. Bhagvanlal lasted for 9 to 10 years. The doctor was a distinguished archaeologist, a fellow of the Bombay University and an honorary member of the Royal Asiatic Society. Being an expert in Ayurveda he used to prepare ayurvedic medicines. Jaykrishna also learned various medicinal uses of plants and their preparations. During this association Jaykrishna got acquainted with Dr. Campbell who was working for the Bombay Gazetteer, Dr. Mac Donald, then Professor of

Botany, Grant Medical College after Dr. Sakharam, Mr. Chester MacNaghten, Principal, Rajkumar College, Rajkot, and Bombay High Court Judge Mr. H. M. Birwood who later wrote the *Flora of Mahabaleshvar*.

Mr. Chester MacNaghten, Principal, Rajkumar College, Rajkot was very much interested in plants. He requested Dr. Mac Donald to give him a local man familiar with plants in Mumbai and around. During holidays he used to spend time to move in forests and identify the plants. Jaykrishna was the best choice and he used to accompany Mr. Chester during his many visits to Mumbai and Matheran. On the advice of Mr. Chester, Mr. Birwood, Bombay High Court Judge also requested Jaykrishna to accompany him. Sometimes all the three used to visit Matheran and study its Flora. Another important assignment Jaykrishna did was to help Dr. RN Khory in writing his *Materia Medica*. He used to buy 10 to 12 local plants of medicinal value every time and dictate Dr. Khory all the necessary information about them. It was unfortunate that Dr. Khory did not acknowledge the valuable help rendered by Jaykrishna.

Considering Jaykrishna's knowledge of plants, Birdwood one day called him and advised him that he should get some suitable employment. Similarly MacNaghten did the same. Jaykrishna was indifferent to serve any master but Bhagvanlal ultimately advised him to accept a job on a trial basis. MacNaghten knew the Maharaja of Porbander, a primarily state in Saurashtra, who was interested in the Flora of Barda mountain and medicinal values of plants. MacNaghten suggested Jaykrishna's name which was accepted. Jaykrishna narrates his experience, "I came to Porbandar on 27th September 1886. Lely Sahib called me for paying respects to Maharaja who, after some conversation on plants gave me an oral order," MacNaghten Sahib says you are fond of plants, explore our Barda mountain". On 1st October he was appointed the Curator of Forests

and gardens of the state. Jaykrishna went to Lely, who was the Administrator of the State and declined the offer. Lely pursued him to accept the offer. Birwood knew Lely and advised him to offer Rs. 200/- per month to Jaykrishna who accepted Rs.100/- as his salary stating that he was not a servant.

He first befriended the local shepherd community (*Rabaris*) who were the guardians of the forest and Barda Mountain of the State. He served the State for 19 years and retired on his own. He studied the Flora of Barda Mountain meticulously, planted trees on the roads and prevented the advance of the sand near the seashore by planting suitable trees. He studied the dialect, customs, conventions, dress, beliefs, superstitions, ornaments, bravery and adventures of *Rabaris*. He could relate their roots to the Mauraya, Hun and Gupta tribes. With their support he could maintain the forest flora and wealth. The profuse ethnobotanical information he has mentioned in his book *Flora of Barda Mountain* bears evidence of his close association with *Rabaris*. He used to move on camels and also walked long distances in the forests. During plague in Porbander (1898 AD), he could show the use of *Aśvagandhā* roots in curing the patients affected by plague.

Jaykrishna participated in many meetings, conferences and exhibitions. In the exhibits on display at the 18th and 20th Indian National Congress, a section of plants of Barda Mountain was present. He identified plants and their parts sent to him from various people and places free of charge. Sir P C Ray enquired from him about a climber Vajravalli. Rev. A K Nairne, author of "*Flowering Plants of Western India*" writes in his letter dated March 12, 1885. "I am very much obliged to you for all the notes you have sent me. They are very useful andbeyond my expectations". MacNaghten, Birwood, J M Campbell, K R Kiritkar and a number of others were corresponding. Mahatma Gandhi invited him

to deliver Lectures in Botany in Gujarat Vidyapeeth. Pandit Malviya, founder of Banaras Hindu University invited Jaykrishna to join its Ayurved College but due to his age he declined.

Jaykrishna married at the age of about 37 to 38 years after he came to Porbander. Bhagvanlal gave him two hundred rupees for the bride's ornaments and clothes. Later he built a house and lived a peaceful life. His two sons died young and only a daughter survived.

After his retirement, he started writing his book in the year 1907. The book of the super royal size of 775 pages, containing descriptions of 611 species belonging to 95 families was published in 1910. His English friends including Lely, Administrator of Porbander State advised him to write the book in English. He bravely replied, "Europeans placed in their countries know and write about the plants of this country, and my countrymen would not know about the plants in their courtyard and those trampled under their feet. I will write the book in my mother tongue".

This book titled as "*Vanaspati Śāstra, A Complete and Comprehensive Account of the Flora of Barda Mountain*" (priced Rs. 10/-) was unique. It was a first book in Gujarati, written with detailed descriptions of plants and their medicinal uses, comparable with any such flora book written in English. Having no comparable Scientific Botanical vocabulary, he worked hard and produced his "magnum opus".

When the manuscript was ready, Jaykrishna had no money to print it. Maharaja of Porbandar had died and after his retirement it was not possible to receive any financial help. He mortgaged the ornaments of his wife to pay the printing charges. But of 1000 copies printed, 200-250 copies were given gratis and it took seventeen years to sell the remaining copies in Gujarat, some of them at half the printed price and some of them remained moth-eaten. Recently a reprint of this book priced at Rs. 800/- (a copy) is available.

Jaykrishna was disappointed and gave up his plan to write Floras of Matheran, Girnar, Gir and Shatrung mountains. The difficulties encountered disheartened him and his enthusiasm diminished.

Jaykrishna after retirement was interested to study the plants of Kutch, his birth place. The Maharaja of Kutch was also interested in this project. Jaykrishna visited Kutch from 1913 to 1918 and started writing the book, *Plants of Kutch and their utility*, from 01-10-1919 and finished on 26-1-1921. He went on a pilgrimage with some uncertainty about the publication of the book. After his return the book was published in 1926 with the financial assistance of the Maharaja of Kutch. He went to Kutch in 1929, the Maharaja appointed him as the Superintendent of his Palace.

He did very useful work like tree planting, established tree plantation society and created plantation barriers to prevent the advance of sand

dunes. Late Mahado Desai, Secretary to Mahatma Gandhi described Jaykrishna's work in the Journal *Navjivan* (22 Nov. 1925, pp.96) (excerpts), "I have called him a wandering ascetic, he has identified himself with his work. Jaykrishnabhai worships the plant as a deity. His study of plants! It was as that of the Entomologist Faber. He wants to make Kutch green and fertile". Gandhiji recollecting his tour of Kutch writes (excerpts), "Shri Jaykrishnabhai is an embellishment of Gujarat. He knows every leaf and every tree of Barda. His enthusiasm.....is infectious. I am already infected with it".

Jaykrishna died at Bhuj on 3rd December 1929 at the age of 80 years. Mahatma Gandhi published a following Obituary on his death (excerpts), "He had a vast collection of plants.....such men with unflinching devotion to their interest are rare. Let all of us emulate his single mindedness and self confidence".