

C. A. BARBER AND K. RANGACHARIAR—THEIR CONTRIBUTIONS TO THE BOTANY OF PENINSULAR INDIA

V. CHITHRA

Botanical Survey of India, Coimbatore

C. A. Barber

Dr. Charles Alfred Barber was born on 10th November, 1860 at Wynberg, South Africa, and his early days were spent in Cape Colony. He had his education in London and Germany. After passing the Natural Science Tripos with first class honours he joined as Demonstrator in Botany at Cambridge in 1889.

In 1891 he became Superintendent of Agriculture in the Leeward Islands, West Indies, where he gained first hand knowledge in Sugarcane Cultivation. In 1895 the post was abolished and he returned to England as a Professor of Botany at Royal Engineering College, Cooper's Hill.

In 1898 he came to India to take up the post of Government Botanist. He was also appointed as the Director of the Botanical Survey of South India to prepare a flora of the Presidency of Madras with jurisdiction over Madras, and the States of Hyderabad, Travancore, Cochin and Mysore. Dr. Barber started his exploration systematically from 12th December, 1898 onwards. It is said that he used to collect specimens from deep forests by shooting down the branches not within easy reach. His collections exceeded 16,700 specimens of wild plants and 4,500 specimens of economic plants and mycological specimens.

The important places of collections of Barber based on the herbarium sheets and records in Madras Herbarium are as follows : *Andhra Pradesh* : Allur, Anakapalli, Annava-ram, Bezwada, Bhimavaram, Bison Hills, Chandragiri, Cuddapah, Devipatnam, Golugonda, Guntur, Horselykonda, Kankapad, Kondapadi, Kondapalli, Kottapalayam, Krishnapuram, Kurnool, Lakshmipuram, Mylavaram, Nattavaram, Ongole, Regupalayam, Samalkota. *Karnataka* : Dimbam, Humpi, Jolpad, Mangalore. *Kerala* : Kannothe, Palghat, Taliparamba, Thenmalais, Travancore. *Tamilnadu* : Agastyaimalai, Ambasamudrum, Andiparai, Attakatti, Avadi, Avalanche, Burliyar, Cherambadi, Chidambaram, Courtallum, Cuddalore, Devala, Gudalur, Hogainakkal, Hosur, Iyerpadi, Kalhatti, Kallakurichi, Kambakkam Hills, Kannerikatty, Kateri, Kodaikanal, Koilpatti, Kotagiri, Madurai, Marudamalai, Masinagudi, Melpat, Mettupalayam, Naduvattam, Nazereth, Naterikal, Palamkottah, Parali, Ponneri, Poonachi ghaut, Pykara, Saidapet, Shanikulam, Sengalteri, Shevaroya, Tanjore, Udumanparai, Valparai, Vandalur. *Orissa* : Kottalaimalai, Magudi, Raikia, Tickapadi.

Acronychia barberi Gamble, *Aglaia barberi* Gamble, *Buchanania barberi* Gamble, *Indigofera barberi* Gamble, *Apama barberi* Gamble are some of the examples novelties based on Barber's collections.

Amidst all these activities he found time to carry out an elaborate investigation on the haustoria of *Santalum*, *Cansjera*, *Olex* and *Ximenia* and published several articles which resulted in the award of the degree of Doctor of Science from Cambridge University in 1907. In 1908, he joined the newly established Agricultural College at Coimbatore and devoted himself to teaching and study on the economic crops of the then Presidency of Madras.

In 1912 the Government decided to open a Sugarcane Research Station at Coimbatore, and recognising his competence, Barber was appointed as Sugarcane Expert on 25th October, 1912. Breeding of better yielding and disease resistant varieties of Sugarcane was his main objective. He studied intensively sugarcanes growing in North India and intended to leave behind him a fairly complete monograph of the sugarcane varieties in India. He left record of his investigation in several published papers. He was the first one to classify the different types of sugarcanes grown in our country. The present efficient work in the field of sugarcane breeding has its foundation on his findings.

The Government Agricultural Station at Samalkota in the Godavari District was originally started by him to fight out the epidemic red-rot of sugarcane. With his previous experience in the West Indies he introduced new resistant varieties from abroad to fight out the disease. His interest was not confined to sugarcane alone, he worked on groundnut at the Palur Agricultural Station and Pepper at the Taliparamba Station. He was known as a strict disciplinarian, a systematic worker, a good sportsman and devoted to photography and painting. He retired on 14th October, 1919

but continued to contribute articles on Sugarcane. In 1932 he fell ill and died in 1933.

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K. Rangachariar

Dewan Bahadur K. Rangachariar was born in September, 1868. Due to his father's demise at an early age Rangachariar was forced to earn money for his early education by giving private tuition to young school children. A Government scholarship enabled him to join the Presidency College, Madras

and take his Master's Degree. Subsequently he obtained a Licentiate Certificate in teaching and started his career in 1895 as Headmaster of Municipal High School, Anantapur.

In recognition of his deep enthusiasm for botanical studies he was appointed in 1897 as Herbarium Keeper at the Government Museum at Madras where he was popularly known as "Museum Rangachari". In 1902 he joined the Presidency College, Madras as Senior Assistant Professor. In 1909 he became the Lecturing Botanist in Agricultural College and Research Institute, Coimbatore. He has written books like 'A Manual of Elementary Botany for India' (1916) and 'A Hand-book of Botany for India' (1925) including examples of Indian plants as the Indian students found it difficult to understand examples given by foreigners. The scope and arrangement of the topics adopted in these books are based upon his experience as a teacher and an examiner of the Madras University. The latter book became so popular that it ran into several editions. Another book written mainly for students is 'The Practical Botany' (1923).

He also translated his text book of Botany in the vernacular for easy understanding of teachers in rural areas of South India. His field of special interest was grasses which as seen in his publications 'A Hand Book of Some Common South Indian Grasses' and 'The Common Fodder Grasses of the Madras Presidency' along with C. Tadulinga Mudaliyar. About one hundred grasses of wide distribution in the plains of South India with illustration, bringing out their economic importance have been dealt with in the hand book. He was a fellow of the Madras Presidency College and many universities sought his guidance.

He took over charge of the Madras Herbarium from Dr. C. A. Barber in 1912 and became the Government Lecturing and Systematic Botanist. He added several hundred specimens to Madras Herbarium by collections from the following places. *Andhra Pradesh* : Chandragiri, Godavari, Mamandur, Visakhapatnam. *Karnataka* : Bangalore, Bellary. *Kerala* : Alleppey, Ernakulam, Kasargode, Palghat, Quilon, Tellicherry, Travancore. *Tamil Nadu* : Arepalayam, Avadi, Coonoor, Doddabetta, Egmore, Gudalur, Guindy, Kambakkam Hills, Kannikatti, Kodai Ghaut, Kotagiri, Mahendragiri, Naduvattam, Naterikal, Nungampakkam, Purasavakkam, Pykara, Ramnad, Saidapet, Salem, Sirumalai, Sivasamudrum, Trikashikundrum, Tuticorin, Vandalur.

He described a few new species of grasses such as *Cynodon barberi* Rang. & Tad., *Cynodon intermedius* Rang. & Tad., *Chloris bourniei* Rang. & Tad., and some species like *Centratheum rangacharii* Gamble and *Ischaemum rangacharianum* Fischer are named after him. The rapid and repeated additions of his collections and his prompt action in sending the specimens to Kew, assisted in the Flora of the Presidency of Madras by Gamble and Fischer. He helped Fischer in his work on the Flora of Anamalais by furnishing him with a list of plants collected and by identifying the specimens.

In 1904 he acted as Superintendent of Ethnography for a year. He assisted Mr. Edgar Thurston, the then Superintendent of the Museum by furnishing valuable detailed information in his book on "The Castes and Tribes of India" The British Government recognised his work by conferring the title of Rai Bahadur in 1913,

He was the President of the Section of Botany of the 4th Indian Science Congress Meeting held at Bangalore in 1917 and delivered a lecture on "The Flora of Tinnevely Hills" In 1918 he was promoted to the Indian Agricultural Service, being one of the earliest to get such a high position. He was one of the foundation members of the Indian Botanical Society and was its President for the year 1922.

He was a good photographer, sound music critic, taking active part in several extra curricular activities. He was elected as President of the Agricultural College Officer's Club for four consecutive years. All that he had learnt only made him feel how little he knew, in comparison to what remained to be known. He retired from service in September, 1923 and was awarded the title of Dewan Bahadur. He continued to contribute articles to the Scientific Journals, till his death in 1934.

LIST OF PUBLICATIONS

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