



52

## Hard work and perseverance lead to success

Kusum Marathe

I was born in 1924 in Mumbai and joined school when I was seven years old. In those days very few girls went to school and they used to get married early. My father, Mr. Shankar Gangla, though a building contractor, was deeply interested in education. My elder sister and I studied in St. Columba High School which had a beautiful campus, green lawns and big playing courts. It gave us good education. In high school, our science teacher Mr. Rane used to actually demonstrate chemistry experiments in class, which was one reason why I developed an interest in science.

I wanted to become a doctor, but when I passed intermediate, I was under age for admission to medical college. Hence I joined the Royal Institute of Science, Mumbai for BSc with botany as the principal subject and chemistry as the subsidiary. When I passed BSc with distinction and stood first in botany, I was awarded a Fellowship. So I dropped the idea of becoming a doctor and enrolled for MSc to do research in botany under the guidance of Prof. Ella Gonzalves. Mrs. Gonzalves, an algologist, assigned a re-

search project to me ecological, and taxonomic studies of soil algae of Maharashtra. For this I collected composite soil samples from various fields, especially paddy. I made liquid and solid cultures and recorded the algae appearing in these cultures. I also studied the effect of fertilizers on these algae and published papers based on these experiments. These were the first of their kind and were often quoted.

When my research was nearing completion, Prof. Gonzalves was transferred to Karnatak College, Dharwar. I moved there to complete the thesis and got a demonstrator's job in the same college, starting my teaching career. I submitted my thesis to Bombay University and received my degree in 1948. I was later appointed as Assistant Lecturer in Botany and in 1950, I married Dr. V. B. Marathe, Lecturer in Zoology in the same college.

When Dharwar was allotted to Karnataka state, both of us were transferred to Mumbai. First I was posted at Ismail Yusuf College, Jogeshwari, where there were no research facilities; and in 1958 to the Royal Institute of Science (RIS). I wanted to start research but I had two sons. My second child was prematurely born. Besides, there was no recognized Ph.D. guide for algae.

However, I collected soil samples, made cultures and continued my research in the spare time I got between my lectures and practicals. Meanwhile, Dr V.R. Dnyansagar, who had moved to RIS as Professor and head of the botany department, agreed to register me as his Ph. D. student. I continued the same project I had undertaken in M. Sc and submitted my Ph. D. thesis in 1968, twenty years after the M. Sc.

In 1970, I was selected by MPSC as Associate Professor of botany and transferred to the Institute of Science, Nagpur, where my husband was already transferred as Associate Professor of zoology. He started a fresh water fisheries section in the zoology department. After joining the Institute, I started a special subject 'Algae' for MSc at Nagpur University. A few years later, I was promoted as Professor, and in 1980, I became Acting Director of the Institute of Science, Nagpur till 1981. I retired in 1982.

Although I could guide research only at a late stage, I have had seven Ph. D. students who worked on various research projects

such as metabolic products of algae, drainage water algae, nitrogen-fixing algae in paddy fields, effects of algal extracts on the germination of seeds and seedling growth. I have published over forty research papers. I did not get much time for research due to my teaching and administrative responsibilities. I sincerely feel that more research on algae will reveal many more algal species which can be used as food, manure, and as a source of oil, as we had found considerable oil in a new *Zygnema* species.

Starting as a demonstrator in 1947, I retired as Professor in a premier research institute. I have been able to achieve this because of hard work and perseverance. I am happy with my career both as a teacher and as a scientist.