

## Lakshmeshwar Rama Rao: A centenary tribute\*

*B. P. Radhakrishna*

Bangalore and Calcutta were the two main centres of geological activity in India in the early part of the present century. The prominent position of Calcutta is understandable, as it was the headquarters of the Geological Survey of India. Bangalore, however, attained its distinctive position because of the activity of early pioneers like Robert Bruce Foote, William Smeeth, Paliyanur Sampat Iyengar and Lakshmeshwar Rama Rao.

A Geological Department had come into existence in Bangalore as early as in 1894 with R. Bruce Foote as its first Director. A geological section was opened at the Central College, then affiliated to the Madras University, to train students for the B.A. degree examination. The University of Mysore was started in 1916. The establishment of this new University and the expanding activities of the Mysore Geological Department gave a great impetus to the growth of the Geology Section of the Central College. L. Rama Rao joined the staff of the Geology Department as a demonstrator in 1918 almost immediately after graduation. Professor Rama Rao became the Head of the Geology Department of the Central College in the year 1933 and held that position for 20 years. He was a Foundation Fellow of the Indian Academy of Sciences and also edited Section B of its Proceedings. The National Institute of Sciences (now the Indian National Science Academy) elected him as a Fellow in 1939. The Indian Science Congress Association elected him as president of the Geology Section in the year 1940.

From 1918 to 1951, for over 30 years he served the Central College Geology Department, first as a lecturer and later as Professor and during this long period trained a large number of students in geology and instilled in them a genuine love for the subject. He lectured mostly on Physical Geology, Stratigraphy and Palaeontology. His favourite subject,

however, was Indian Geology which he taught to the Honours students. His lectures were of absorbing interest as he was a very good speaker.

Early in his career he developed a keen interest in the study of the Cretaceous rocks of Trichinopoly which were known to be full of fossils. Micropalaeontology, particularly the study of algae became his special field. It can be truly said that he was the father of Micropalaeontology in India.



Rama Rao kept up a sustained interest in the study of the Cretaceous rocks and published over 100 research papers. The more important of these were: the discovery of fossil algae in the South Indian Cretaceous (*Nature*, 1932); the fossil algae from the upper-most Cretaceous beds (the Niniyur Group) of the Trichinopoly district, South India (*Mem. Geol. Surv. India, Pal. Indica*, 1936); discovery of fossil algae in India (*Birbal Sahni Memorial Vol.* 1952); Fossil foraminifera from the Cretaceous rocks of South India, Ariyalur-Orbitoides (*Proc. Ind. Acad. Sci.* 1957); fossil algae in India (*Nature*, 1958) and the Problem of the Cretaceous-Eocene Boundary (*Proc. Nat. Acad. Sci. India*, 1960). Rama Rao's regret, to which he

often gave expression, was that a field of study of such great interest and on which so much of work is being done elsewhere was badly neglected in our Universities.

### Cretaceous-Eocene boundary

The Cretaceous-Tertiary boundary problem which had attracted the interest of Rama Rao has since attained global significance and has given rise to many controversies. One of Rama Rao's first acts after founding the Geological Society of India was to organise a Symposium on the Cretaceous-Tertiary Boundary Problem at Bangalore in 1966. He edited the papers presented at the symposium and brought out a volume on the Cretaceous-Tertiary Formations of South India (*Mem. Geol. Soc. India*, 1968, vol. 2). A majority of the contributions gathered in this volume were from his students, who had been inspired by his teaching and example. This volume, a notable contribution to Indian Geology was a fitting tribute to Professor Rama Rao's scholarship and his ability in bringing the best out of his students. Rama Rao's main thesis was that no definite boundary has separated the two major Eras and that the concern of stratigraphers should be to discover more and more 'No Boundary' areas and to reconstruct and present a continuous and unbroken record of geological and biological events.

In 1964 Rama Rao attempted a review of the present state of knowledge on this vital subject and produced an important paper titled 'The Problem of the Cretaceous-Tertiary Boundary with Special Reference to India and Adjacent Countries'. The importance of this paper lay in its clear indication of the type of studies to be undertaken in the field as well as in the laboratory to fill vital gaps in our knowledge. He concluded the paper with a clear statement of sound principles to be applied to problems of boundaries in the stratigraphic scale in relation to Earth History.

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