HISTORY OF LATE CRETACEOUS DINOSAUR FINDS IN INDIA AND CURRENT STATUS OF THEIR STUDY*

DHANANJAY M. MOHABEY

GEOLOGICAL SURVEY OF INDIA, PALAEONTOLOGY DIVISION, CENTRAL REGION, SEMINARY HILLS, NAGPUR-440 006

E-mail: d.mohabey@gsi.gov.in

ABSTRACT

The knowledge on the Indian Late Cretaceous dinosaurs is mainly based on the monumental work done prior to independence of India by Richard Lydekker, Charles Alfred Matley and Friedrich von Huene. The early collection of dinosaurs mainly came from the Lameta sediments at Bara Simla and Chhota Simla, Jabalpur in Madhya Pradesh and Pisdura in Maharashtra. The first dinosaur bone in India was discovered by W.H Sleeman from the Lameta sediments in 1828, but could be identified as of dinosaurs only after 45 years by Lydekker in 1877, who established a new species Titanosaurus indicus for it. A major collection mostly came from the excavation by Matley during his expedition to India in 1917-1924 and 1932-33. Huene and Matley jointly worked on the collection during the first expedition from Bara Simla and published their work in 1933. They described four sauropod and eleven species from the collection. After this, it took over 50 years to make new discovery of Late Cretaceous dinosaurs in the Indian subcontinent. The new finds included the discovery of associated abelisaurid-titanosaurid skeletons and their eggs and nest sites from Lameta of the Kheda area in Gujarat in 1981. The new finds from India and its allied southern Gondwana landmasses and emerging phylogenetic information necessitated the taxonomic revision of the Indian dinosaurs. For the Indian titanosaurifome sauropods, the current review accepts only Isisaurus colberti and Jainosaurus septentrionalis as valid. Amongst theropods presently only three large bodied abelisauridae (Indosuchus raptorius, Indosaurus matleyi and Rajasaurus narmadensis) and small bodied theropod Laevisuchus indicus are recognized. The lack of associated skeletons from the Indian Cretaceous has caused difficulties in establishing phylogenetic relationships amongst the Indian Late Cretaceous dinosaurs. In this context, it becomes important to collect all the missing information on the stratigraphy, horizon and location for the collection made prior to 1933 and removed from India to NMH or AMNH. There is now a need to bring all the collection together and study them for the comparative study amongst the individual and different species for taxonomic study and developing phylogenetic relationships.

Keywords: Late Cretaceous, dinosaurs, History of dinosaur studies, new finds of dinosaurs in India