

RESEARCH ARTICLE

## Bivalvia from bagh beds of Dhar district, Madhya Pradesh

MAMTA PATHRADE, AMRITA KHATRI, RANJANA VASUNDRIYA AND RITA JAIN

Author for Correspondence -

MAMTA PATHRADE

Department of Zoology, M.J.B.

Govt. Girls P.G. College, Moti

Tabela, INDORE (M.P.) INDIA

Email: mamtathrade@gmail.com

See end of the article for Coopted  
authors'

**ABSTRACT.....** Marine cretaceous rocks of Narmada Valley are termed as Bagh Beds, they contain a well developed bivalve fauna in their calcareous top. Four species of bivalves have been reported in this paper which were collected from Bagh Beds in Dhar district, Madhya Pradesh. These species are *Astarte sinuicostata*, *Modiolus solenoides*, *Pholadomya elliptica*, *Plicatula deodikari*. Although some species have been reported with Aptian to Albian affinities, while the overall bivalve fauna indicate Cenomanian to Turonian aspect. Such study would help us to know the environmental setup of that time.

**KEY WORDS.....** Cretaceous, Bagh Beds, Fauna, Bivalve

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## INTRODUCTION.....

In Indian stratigraphy, the sediment of Bagh group occurs intermittently over a distance of about 345 km in Narmada Valley. The various marine formation have been broadly grouped under two distinct areas of deposition and faunal assemblages: Eastern area and western area. Eastern area extends from Barwaha through Man river valley and Bagh of Dhar district upto Jhabua and Alirajpur district of Madhya Pradesh. Western area extends from west of Alirajpur through Kawant upto Rajpipla in Bharuch district of Gujarat. Many fossils were collected from Rampura, Badkeshwer, Bagh, Khandlai, Mogra of Dhar district which is the eastern area of the Bagh Beds. Bivalves constitute a big group of fossils studied from Bagh Beds by Chiplonkar (1939), Badve (1972) and Chiplonkar and Badve (1973, 1976 a, b). The Bivalvia were found to be major component amongst various fossil groups (Dassarma and Sinha, 1975 and Parwar, 2006).

The present study includes bivalves exclusively collected from Nodular lime stone and Deola Chirakhan Marl (Cenomanian-Turonian, lower portion passing into upper Albian, Chiplonkar *et al.*, 1977) from Dhar district, Madhya Pradesh. Occurrence of the bivalve species in Nodular lime

stone, Deola Chirakhan Marl and the Nimar sandstone was noticed by Bose, 1884, Chiplonkar, 1939 and from Jhabua and Alirajpur district was also recorded by Mukerjee, 1938, Nayak 1983, Nayak and Badve, 1985. This area has been chosen as very scanty work has been done on eastern area of Bagh Beds recently. Our survey of fossils from Rampura, Badkeshwer, Bagh, Khandlai, Mogra of Dhar district revealed four bivalve species viz., *Astarte sinuicostata*, *Modiolus solenoides*, *Pholadomya elliptica*, *Plicatula deodikari*.

## RESEARCH METHODS.....

The standard methodology for paleontological studies has been adopted. This includes localization of different fossiliferous areas by land records and survey of these areas in different villages. Stratigraphical and geological studies of the fossiliferous rocks have also been done. Fossils were collected by digging the fossiliferous area of Bagh Beds up to depth of two to three meters.

Fossils can be discovered by careful search. The collection of greatest possible number of fossil samples has been done. Utmost care has been taken so that the accompanying fossils belonging to the same group or the