

NEW OCCURRENCE OF INTERTRAPPEAN BEDS IN THE JABALPUR DISTRICT, MADHYA PRADESH

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TEN Deccan Basaltic flows have been identified in the Jabalpur district. Occurrence of an Intertrappean bed in the district was first recorded by Rao¹ who noticed its occurrence in a nala cutting some 200 m south of village Khamaria (23°01'N:79°54'E). The present note reports new occurrence of two distinct intertrappean beds termed 'Khamaria intertrappean bed' and 'Barela intertrappean bed'.

Khamaria intertrappean bed

Towards south of river Narmada, intertrappean beds are found to be cropping out near the villages of Kahani (23°01'N:79°51'E), Manegaon (23°04'N:79°53'E) and Jodhpur (23°06'N:79°53'E). Intertrappean sediments exposed at Khamaria as well as at these three localities are sandwiched between the third and fourth Deccan Basaltic flow and thus constitutes the same intertrappean bed. This bed is termed as 'Khamaria intertrappean bed' after the village Khamaria. The limestones overlain by cherts constitute the main litho units. Cherts are best exposed near Kahani where they attain a 5 m thickness. The topmost chert layer (about 0.25 m thick) is abundantly fossiliferous.

Barela intertrappean bed

An intertrappean bed exposed near village Barela (23°06'N:80°04'E), about 16 km from Jabalpur on Mandla Road, towards north of river Narmada has been named as 'Barela intertrappean bed'. It is slightly younger than Khamaria intertrappean bed since it is underlain by seventh and overlain by eighth Deccan Basaltic flow. The limestone constituting the lower unit is more prominent than the overlying chert.

Fossils

The fossils recognized are mostly Gasteropods. *Physa prinsepilii* occurs in both the intertrappean beds while *Lymnaea subulata* and *Paludina* are restricted to Barela intertrappean bed. These fossils are indicative of shallow freshwater environment at least towards the close of intertrappean sedimenta-

tion. A reference to micro-fossils and bivalves was made by Rao¹. However, it is felt that the micro-fossils referred¹ are actually micro gasteropods while the bivalves are broken fragments of bigger physa shells.

It may be recalled here that Deccan intertrappean beds are already reported from the neighbouring Mandla district^{2,3}. Thus, the intertrappean beds extend to more easterly limits than were previously supposed to have been. The observations made by Pascoe⁴ may be mentioned here in the context of intertrappean beds of Jabalpur district.

- (i) Limestone constitutes lower layer while the chert upper in an intertrappean bed.
- (ii) In a given area gasteropod-bearing intertrappean beds are slightly older than fossil-wood-bearing intertrappean beds. Therefore, it is probable that fossil-wood-bearing intertrappean beds of Mandla district are younger than gasteropod-bearing intertrappean beds of Jabalpur district.

Many intertrappean beds in Madhya Pradesh occur immediately above the local base of the Deccan trap and are located in the courses of the tributaries of the Narmada such as those of Khandwa, Hoshangabad, Jabalpur districts, etc. The significance is yet to be clearly understood, but it may be possible that all these intertrappean beds were deposited in lakes formed in the tributaries of river Narmada. Such a case is also known to occur in Kathiawar⁵.

Thanks are due to Dr V. D. Borkar, MACS, Research Institute, Pune for confirming the identification of fossils and for valuable suggestions.

21 July 1987; Revised 15 December 1987

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