

ONCOLITES FROM THE ROHTAS LIMESTONE, SON VALLEY AREA, MIRZAPUR DISTRICT, U.P.

ONCOLITES are defined as unattached stromatolites with encapsulating laminae formed by the activity of blue-green algae (Walter⁶, 1976). On a recent visit to Kanaura, on Patwadh-Jhiria Forest Road, Dala area, Mirzapur District, U.P., the oncolites are recorded for the Rohtas limestone. This is the first record of oncolites from the Semri Group (Semri Series of Auden¹ 1933) of Son Valley area, Mirzapur District, U.P. (Table I). The only other reference of oncolites in the Vindhyan Supergroup is by Kumar⁴ (1977) from the Tirohan Limestone of Chitrakut area, Satna District, M.P., in which they occur in association with phosphorite and columnar stromatolites *Colonella columnaris* and *Baicalia baicalica*.

deposition (Reineck and Singh⁵, 1973). The presence of oncolites indicates increased periodic turbulence usually corresponding to decreased depth, i.e., the intertidal zone (Gebelein², 1976). Kumar³ (1976) has recorded poorly developed columnar stromatolites from the Rohtas limestone of Newari area, Mirzapur District, U.P. On the basis of the occurrence of oncolites and poorly developed stromatolites it can be concluded that the algal life was present during the deposition of Rohtas Formation. Although the Rohtas Formation comprises of about 100 meters thick sequence of carbonate rocks, there is a general absence of well-developed columnar and stratified stromatolites. However, the underlying carbonate horizons show luxuriant growth of columnar stromatolites *Conophyton*, *Colonella* and *Kussiella* (Table I). Thus, the absence of well-deve-

TABLE I

		Sandstones and shales		Oncolites and poorly developed stromatolites
SEMRI GROUP	Kaimur Sandstone			
	Rohtas Formation			
	Kheinjua Formation	Glauconitic Sandstones	—	<i>Conophyton garganicus</i> <i>Colonella columnaris</i> <i>Colonella clappii</i>
	Porcellenite Formation	Fawn Limestone		
		Olive Shales		
		Porcellenites		
	Basal Formation			<i>Colonella kajraharensis</i> <i>Conophyton vindhyaensis</i> <i>Collenia symmetrica</i> <i>Kussiella kussiensis</i> <i>Kussiella dalaensis</i>
			Unconformity	
	Bijawar Formation		Slates and phyllites	
				<i>Kussiella kussiensis</i>

The oncolites are circular to elliptical in outline with concentric laminae (Fig. 1). The diameter ranges from 1 to 4 cm. These are seen on the upper surface of the bedding plane. The oncolite bearing limestone

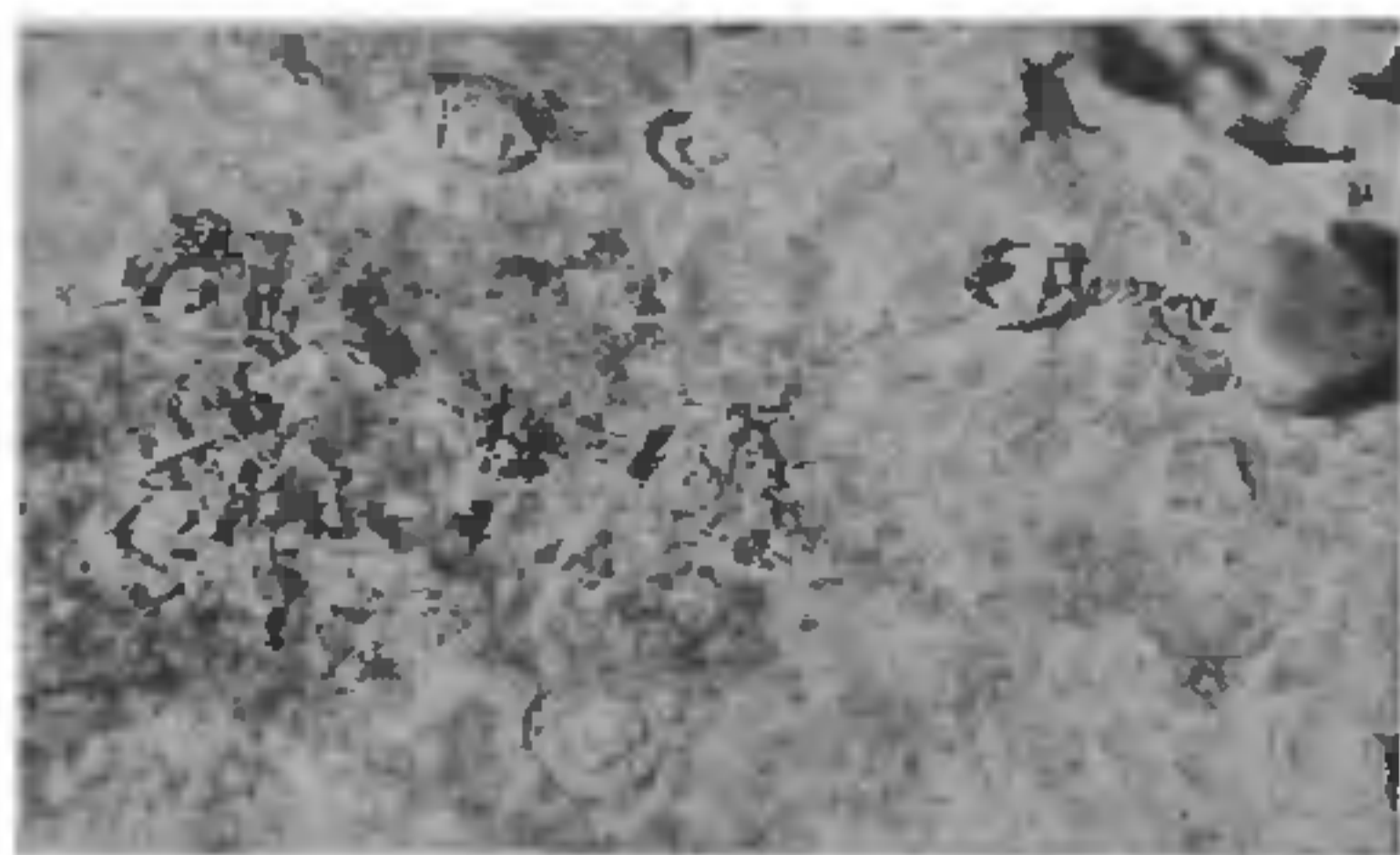


FIG. 1. Oncolites in the Rohtas limestone, Son Valley area, Mirzapur District, U.P.

shows flaser bedding and parallel laminations. The flaser bedding is typical of tidal flat environment of

developed stromatolites in the Rohtas Formation must be ascribed to environmental factors.

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