

A MIOFLORULE FROM MAITUR FORMATION NEAR JUNUT, WEST BENGAL

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ABSTRACT

A small miofloral assemblage is reported from the beds of the Maitur Formation exposed on the northern bank of the Damodar River near the village Junut, Raniganj Coalfield, West Bengal. Disaccate pollen constitute about 70 per cent of the assemblage. Triletes are only about 10 per cent, while the monosaccates are 15 per cent of the total. Qualitatively and quantitatively, the assemblage is akin to the other Lower Triassic palynological assemblages from India.

INTRODUCTION

THE Maitur Formation, in the north-western part of the Raniganj Coalfield, is well-developed in and around the Nonia Nala, west and north-west of Asansol. Farther south-west these strata crop out to the north of the Damodar River, in the vicinity of the Junut village (23°40' N. lat.: 86°52' E. long). The boundary between the Raniganj and Maitur formations, well observed in the stream section near Junut, is marked by a small unconformity which occurs immediately above the fossil wood horizon of the Kumarpur Sandstone Member of the Raniganj Formation (Gee, 1932).

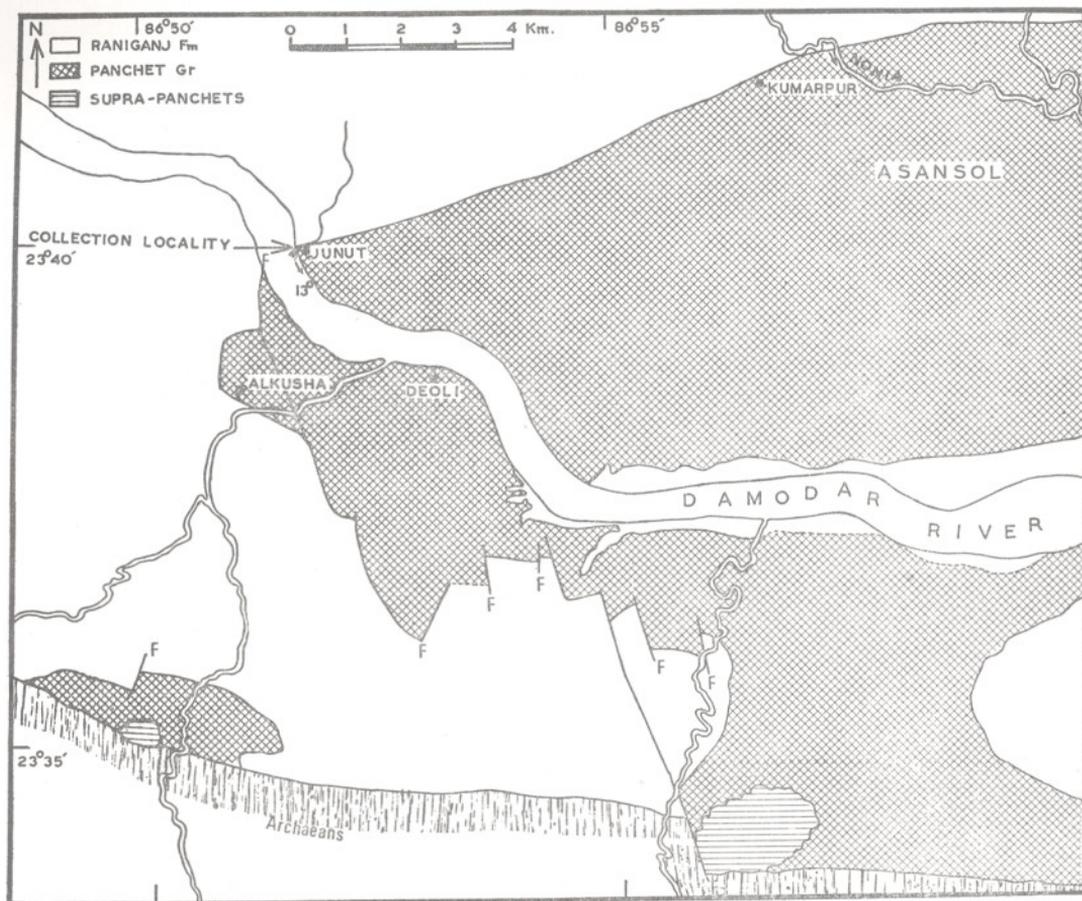
The lithology of the Maitur Formation around Junut is the same as in the Nonia Nala. The beds range from shales and mudstones to sandstones of varying hardness. The dip of the beds is about 13° SSE. The mudstones contain abundant remains of the freshwater crustacean *Estheria mangaliensis*. Plant remains are rare and unidentifiable.

The present note reports the occurrence of a Lower Triassic miofloral assemblage from these beds. A large number of samples were collected from the exposure at the junction of the Junut Nala with the Damodar River (Text-fig. 1). Out of these only one had enough specimens for a frequency count.

MIOFLORAL COMPOSITION

The miofloral assemblage comprises 28 species referable to 21 genera. These are listed below:

- Leiotriletes* sp.
- Punctatisporites* sp.
- Biretisporites dubius* Maheshwari & Banerji 1975.
- Decisporis variabilis* Kar 1970.
- Verrucosisporites* sp.
- Playfordiaspora cancellosa* (Playford & Dettmann) Maheshwari & Banerji 1975.
- Densipollenites indicus* Bharadwaj 1962.
- Densipollenites invisus* Bharadwaj & Salujha 1964.
- Striomonosaccites circularis* Bharadwaj & Salujha 1964.
- Plicatipollenites indicus* Lele 1964 (probably reworked)
- Cuneatisporites* sp.
- Platysaccus papilionis* Potonié & Klaus 1954.
- Platysaccus* sp. cf. *P. queenslandi* de Jersey 1962.
- Klausipollenites* sp. cf. *K. sulcatus* Kar, Kieser & Jain 1972.
- Klausipollenites* sp.
- Alisporites asansoliensis* Maheshwari & Banerji 1975.
- Alisporites plicatus* Kar, Kieser & Jain 1972.
- Falcisporites stabilis* Balme 1970.
- Chordasporites* sp.
- Gondwanipollenites magnificus* (Bharadwaj & Salujha) Bose & Maheshwari 1968.
- Gondwanipollenites* sp.
- Protohaploxypinus microcorpus* (Schaarschmidt) Balme 1970.
- Protohaploxypinus varius* (Bharadwaj) Balme 1970.
- Striatites solitus* Bharadwaj & Salujha 1964.
- Striatites communis* Bharadwaj & Salujha 1964.



TEXT-FIG. 1 — Geological map of a part of the Raniganj Coalfield, West Bengal, showing the sampling site at Junut stream-Damodar River junction.

Lunatisporites sp. cf. *L. pellucidus* (Goubin)
Maheshwari & Banerji 1975.

Lunatisporites sp.

Lahirites rarus Bharadwaj & Salujha
1964, and

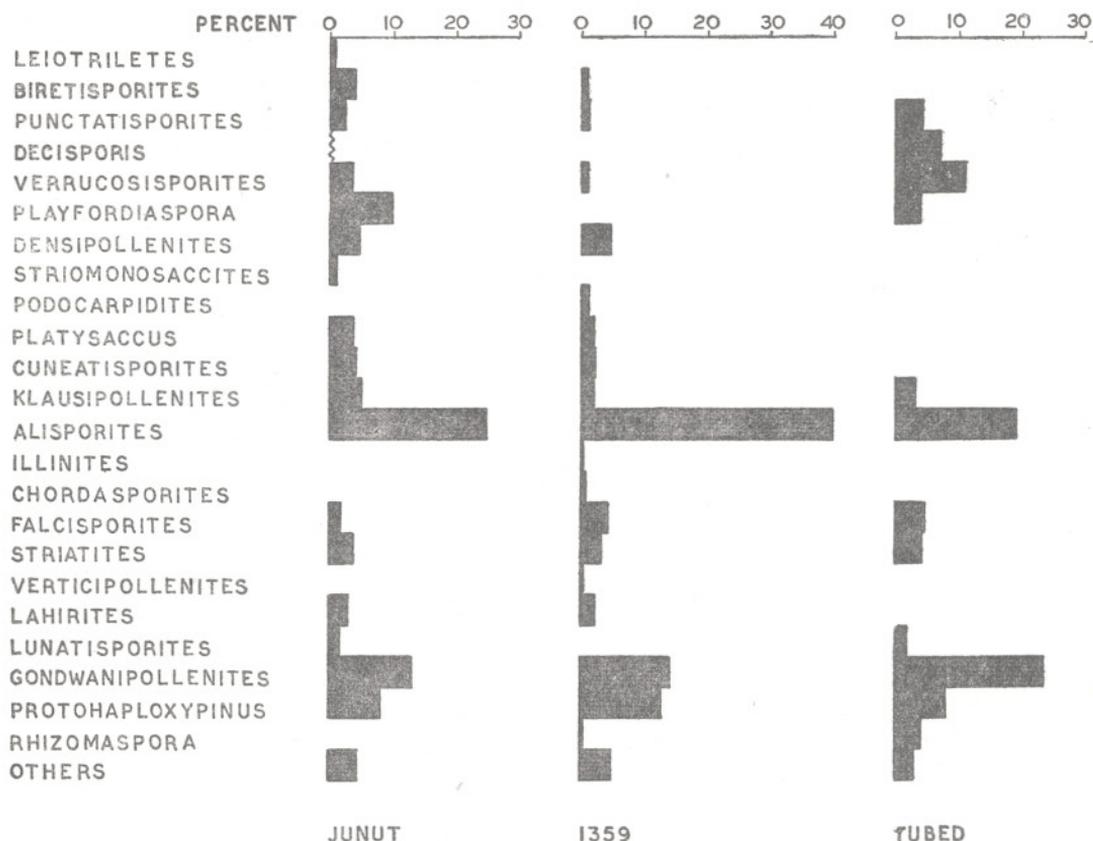
Laricoidites sp.

DISCUSSION

The per cent frequency of different miospore genera in the sample is shown in Text-figure 2. It is seen that the sample is dominated by disaccate pollen, of which the nonstriates are 39.5 per cent and the striates are about 30 per cent. The monosaccoid *Playfordiaspora* occurs in quite significant numbers and is about 10 per

cent, while the other monosaccate pollen are about 5 per cent. The triletes are only about 10 per cent.

A comparative study shows that this miofloral assemblage has a definite resemblance with the Lower Triassic miofloral assemblages earlier recorded from the Nonia Nala section near Asansol, Raniganj Coalfield, West Bengal (Maheshwari & Banerji, 1975) and the Sukri River section near Tubed, Auranga Coalfield, Bihar (Banerji & Maheshwari, 1975). The miofloral composition is nearest to that from sample 1359 from the Nonia Nala except for a high frequency of *Playfordiaspora*, which is absent in the latter, and a comparatively low frequency of *Alisporites*. The Lower Triassic mioflora



TEXT-FIG. 2 — Histogram showing per cent frequency of miospore genera in the fossiliferous Junut sample, and in comparative samples from Nonia Nala (near Asansol, sample 1359) and Sukri River (near Tubed).

from borehole NCRD6, in the central part of the coalfield, is basically similar but has a higher percentage of cingulate-zonate forms (Bharadwaj & Tiwari, 1977).

The Triassic miofloral assemblage from borehole RE9, in the eastern part of the

Raniganj Coalfield, is quite different in having a very high frequency of trilete spores (Kar, 1970). The RE9 assemblage probably belongs to the Hirapur Formation as the Maitur Formation is absent in this area, i.e. eastern part of the coalfield.

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