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Palynological assemblages from a
fragment of rock containing
remains of the vertebrate
Strepsodus portlocki

Internal Report IR/02/112

BRITISH GEOLOGICAL SURVEY

INTERNAL REPORT IR/02/112

Palynological assemblages from a fragment of rock containing remains of the vertebrate *Strepsodus portlocki*

Mike Stephenson

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Summary

The presence of *Auroraspora macra* and *Schopfites claviger* indicates a Tn3c (latest Tournaisian) CM Biozone age for sample 1298 (MPA 50944) from a fragment of rock containing remains of the vertebrate *Strepsodus portlocki*.

1 Introduction

At the request of Dr Jennifer Clack, University Museum of Zoology, Cambridge, samples were taken from fragments of rock containing remains of the vertebrate *Strepsodus portlocki*, to ascertain the age of the matrix in which the fossil resides.

2 Description of assemblages

2.1 MPA 50944, 1298

The sample yielded an abundant organic residue that included common poorly preserved palynomorphs, black equant and elongate fragments of probable land plant lignin origin and

poorly preserved remains of cuticle and other sheet cellular material. The palynomorph assemblage contained:

Schopfites claviger

Knoxisporites spp.

Cyclogranisporites sp.

Colatisporites spp.

Auroraspora cf. *macra*

Rugospora polyptycha

Spelaeotriletes tuberosus

Convolutispora spp.

Plicatispora scolecophora

Raistrickia cf. *corynoges*

Auroraspora macra

Discernisporites micromanifestus

Anaplanisporites baccatus

Reduviasporonites cf. *chalastus*

2.1.1 Interpretation

The presence of *Schopfites claviger* and *Auroraspora macra* suggests that this sample can be assigned to the Tn3c (latest Tournaisian) CM Biozone of Clayton et al. (1977). Other taxa in the assemblage are consistent with this age determination.

Chomotriletes spp. and *Reduviasporonites* cf. *chalastus* are likely to be of zygnemataceaeal algal origin, and their presence may therefore indicate a low salinity or freshwater depositional environment. The presence of *Reduviasporonites* cf. *chalastus*, (see Foster et al. in prep.; Krassilov et al. 1999) is also interesting because this record may constitute one of earliest occurrences of the taxon.

2.2 MPA 50945, 28502

The sample yielded a very sparse organic residue consisting mainly of black woody fragments and poorly preserved spores.

2.2.1 Interpretation

No age determination can be given.

2.3 MPA 50946, 1304

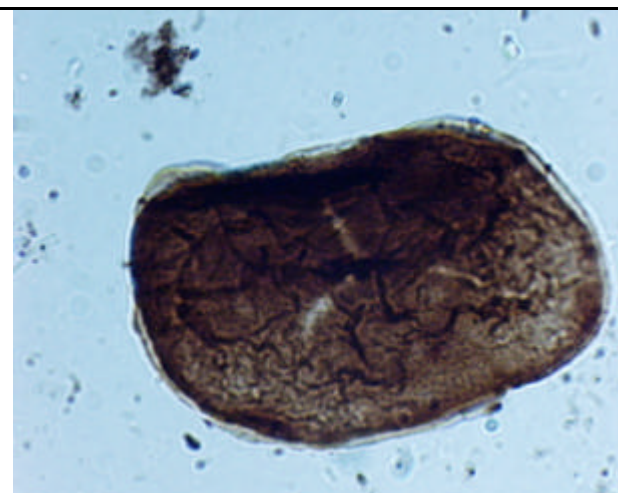
The sample yielded a very sparse organic residue consisting mainly of black woody fragments and poorly preserved spores.

2.3.1 Interpretation

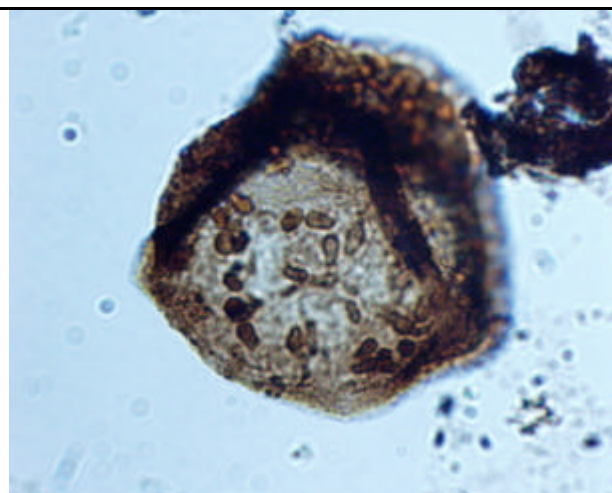
No age determination can be given.

Appendix 1 Plate

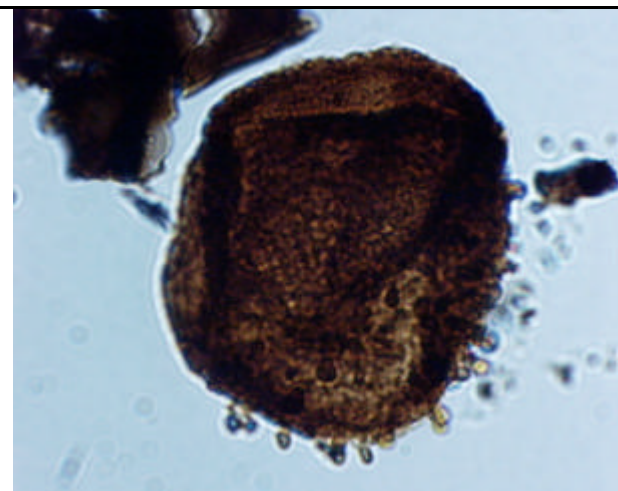
Palynomorphs from MPA 50944, 1298



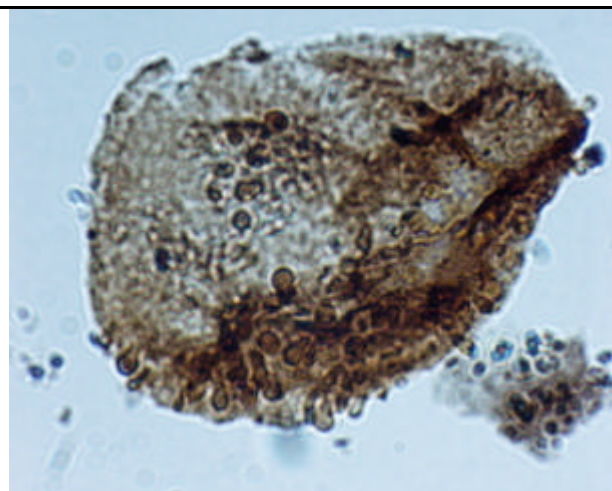
Plicatispora scolecophora



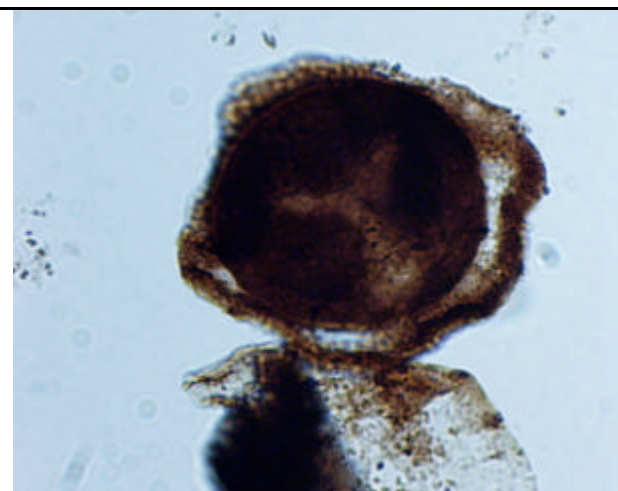
Schopfites claviger



Schopfites claviger



Schopfites claviger



Auroraspora macra



Reduviasporonites cf. chalastus

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