

PALYNOLOGICAL REPORT ON CORE 12, ESSO GIPPSLAND SHELF  
No.4 WELL

The two samples taken from 7239 feet and 7251 feet in core 12, Esso Gippsland Shelf No.4 well provided fair concentrations of reasonably well preserved spores, pollen grains, and microplankton. The microfloras from both samples are essentially similar in composition and comprise the following species:

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| Spores        | <u>Cyathidites minor</u> Couper<br><u>C. splendens</u> Harris<br><u>Gleicheniidites cercinidites</u> (Cookson)<br><u>Laevigatosporites ovatus</u> Wilson & Webster (7251 feet only)  |
| Pollen        | <u>Dacrydiurnites halmei</u> Cookson<br><u>D. ellipticus</u> Harris (7251 feet only)<br><u>Microcachyridites antarcticus</u> Cookson<br><u>Nothofagidites emarcida</u> (Cookson)<br><u>Podocarpidites ellipticus</u> Cookson<br><u>Phyllocladidites mawsonii</u> Cookson<br><u>Proteacidites subscabratus</u> Couper<br><u>P. crassinora</u> Harris (7239 feet only)<br><u>P. reticuloscabratus</u> Harris (7239 feet only)<br><u>Polyporina fragilis</u> Harris (7239 feet only)<br><u>Tricolpites gillii</u> Cookson |
| Microplankton | <u>Cyclonephelium retiintextum</u> Cookson<br><u>Deflandorea delineata</u> Cookson & Eisenack<br><u>Svalbardella australina</u> Cookson & Eisenack   |

The three species of microplankton have been described recently (Cookson & Eisenack 1965a,b) from the Pebble Point Formation in western Victoria; the distribution of the species in this formation is apparently restricted to the basal beds. Harris (1965) records a similar restricted distribution in the Pebble Point Formation for Dacrydiurnites halmei Cookson, a species that occurs only in his Triorites edwardsii Assemblage. Harris assigns a Middle Paleocene age to his T. edwardsii Assemblage. A similar age has been suggested (Dettmann 1965) for beds at 9514 feet in Gippsland Shelf No.3 well and at 8695 feet in Gippsland Shelf No.1 well. These horizons may be considered equivalents of beds at 7239 feet and 7251 feet in Gippsland Shelf No.4 well.

The microplankton recovered in the present investigation comprises an association that <sup>elsewhere</sup> occurs in stratigraphically lower horizons than that reported (Dettmann 1965) from between 7836-43 feet in Gippsland Shelf No.3 well (see Cookson and Eisenack 1965c).

References

Cookson, I.C. and Eisenack, A. 1965a. Microplankton from the Paleocene Pebble Point Formation, south-western Victoria. Part 1. Proc. Roy. Soc. Vict., 78, 137-141.

Cookson, I.C. and Eisenack, A. 1965b. Microplankton from the Paleocene Pebble Point Formation, south-western Victoria. Proc. Roy. Soc. Vict., 79, 139-146.

Cookson, I.C. and Eisenack, A. 1965c. Microplankton from the Dartmoor Formation, SW. Victoria. Proc. Roy. Soc. Vict., 79, 133-137.

Dettmann, M.E. 1965. Palynological report on sidewall cores from between 7785 feet and 9514 feet in Esso Gippsland Shelf No.3 well. Unpublished report submitted to Esso Exploration Australia, Inc., 17/12/65.

Harris, W.K. 1965. Basal Tertiary microfloras from the Princetown area, Victoria, Australia. Palaeontographica, 115B, 75-106.

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