



PE990437

INTERPRETATIVE

PALYNOLOGY REPORT

ON

GROPER -1

BY

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Palynology Report 1970/16

June 1970.

## INTRODUCTION

An essentially uninterrupted sequence of conventional cores from Groper -1 between 2800 and 3310 feet were sampled to determine if dinoflagellates and associated microplankton could be used to subdivide the section containing spore-pollen assemblages attributable to the Nothofagidites asperus Zone. This involved ascertaining the age differences, if any, between the lower part of the dominantly marly section, the underlying "glaucconitic silt" and the subjacent Latrobe sands. On the basis of electric log characteristics, the top of the "glaucconitic silts" was picked at 3056 feet and the top of the Latrobe sands at 3114 feet.

Pelagic foraminiferal determinations by D.J. Taylor indicate that the top of I-2 is at 2950 feet, the top of J at 2982 feet and the base of the marine section is at 3060 feet. Samples from 3090 feet to 3315 feet which contain abundant spores and pollen were placed in the N. asperus Zone by P.R. Evans (Palyngology Report 1969/3).

## SUMMARY

<u>Sample</u>	<u>Drill Depth</u>	<u>Age</u>	<u>Dinoflagellate Zone</u>
Core 6	2947 feet	Oligocene	Unnamed.
Core 7	2962 feet	"	"
Core 7	2980 feet	"	"
Core 8	3010 feet	"	"
Core 8	3024 feet	"	"
Core 8	3055 feet	"	"
Core 9	3067-70 feet	Eocene	<u>O. diktyoplokus</u>
Core 9	3073-77 feet	"	"
Core 9	3085-88 feet	"	"
Core 9	3094-97 feet	"	"
Core 9	3102 feet	"	"
Core 10	3127 feet	"	<u>D. extensa</u>
Core 10	3134 feet	"	"
Core 10	3140 feet	"	"
Core 11	3157 feet	No dinoflagellates	

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#### COMMENTS

Dinoflagellates assemblages consisting primarily of several varieties of Hystrichsphaera ramosa were recovered from the marly section between 2947 and 3055 feet in all of the samples from this interval. Associated spores and pollen are dominated by specimens of Nothofagidites, and there is little diversity of species among either the microplankton or the spores and pollen in this part of the section. A greater diversity of dinoflagellates and of spores and pollen was found in the assemblages between 3064 and 3140 feet. Dinoflagellate assemblages from 3064 and 3102 feet are placed in the Oligosphaeridium diktyoplokus Zone, and those from 3127 to 3140 feet in the Deflandrea extensa Zone. Samples between 3157 and 3315 feet lack dinoflagellates but yielded excellent spore-pollen assemblages.

The sample from 3102 feet contained numerous specimens of Dinopterygium mitrum, and the same species has been identified in Snapper -3 at 4206 feet and in Turrum -1 at 6580 feet.

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