

FAUNAL SEQUENCE:

Cores 1 to 3 and 5 to 11 contained Tertiary foraminifera. No foraminifera were found in cores below Core 11, whilst no new species were found in cutting samples below this core (base at 5,905 feet). Thus the foraminiferal sequence extends from above 860 feet (first return) to 5,905 feet, though it is interrupted between 2,530 and 3,090 feet by an interval of volcanic rocks.

The Bass No. 1 Tertiary foraminiferal sequence will be discussed in terms of the biostratigraphic units (zonules) established by Taylor 1965a) for the Ezzo Gippsland Shelf No. 1 Well. This biostratigraphic scheme is a "down sequence" one, which utilizes rotary cuttings samples, taking into account "down-hole" contamination.

Zonule A - ? to 1,200 feet: A complete absence of planktonic species and a dominance of Elphidium spp. and miliolids identifies this unit, which must be regarded as expressing environmental rather than biostratigraphic features.

Zonule B - 1,200 to 1,500 feet: Determined on the presence of keeled Globorotalia of the G. menardii Group. The absence of the typical bolivinid and uvigerinid fauna of the Gippsland Shelf sequence is probably due to shallow water deposition.

Zonule C - 1,500 to 2,000 feet: Contains the highest appearance of Globorotalia mayeri, sp. 4, and Uvigerina sp. 5.

Zonule D - 2,000 to 2,300 feet: Globorotalia conica and G. barisanensis define the top of this unit, as do such benthonic species as Uvigerina sp. 7, U. sp. 8 and Elphidium arenea (= syn. Discorotalia arenea Hornibrook).

Zonule E - 2,300 to 2,530 feet: The complete absence of Orbulina universa in Core 3 (2,494 to 2,511 feet), but the presence of Globigerinoides glomerosa curva and G. transitoria identifies this unit. The top is difficult to establish, but has been designated on the highest appearance, in abundance of Globigerinoides spp. and Globoquadrina dehiscens. It should be noted that Orbulina sutularis is also absent from Core 3, which implies that this sample is near the base of the unit.

VOLCANICS - 2,530 - 3,090 feet: The age of this interval will be discussed later.