CONCEPTUAL GEOCHRONOLOGY

OBSERVED GIPPSLAND BIOSTRATIGRAPHIC SEQUENCES OF PLANKTONIC FORAMINIFERAL ASSEMBLAGES

CORRELATION WITH PAN-TROPIC STANDARD

modified after:-
Berggren & Van Couvering (1974)
Van Couvering & Berggren (1977)
Hardenbol & Berggren (1978)

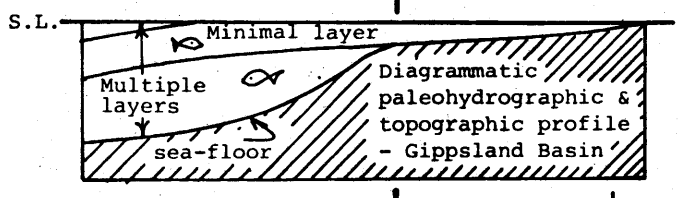
GIPPSLAND CHRONS

Multiple layered	Minimal layered

boundary time slop

time interval probably un-represented by assemblages

"MULTIPLE LAYER" ASSEMBLAGE ZONES



"MINIMAL LAYER" ASSEMBLAGE ZONES

M.Y.	EPOCHS	BLOW (1979) ZONES	GIPPSLAND CHRONS	ASSEMBLAGE ZONE LETTER CODE	SUMMARY OF FAUNAL CHARACTERISTICS OF ASSEMBLAGES (Full characterisation in text)	ASSEMBLAGE ZONE LETTER CODE	SUMMARY OF FAUNAL CHARACTERISTICS OF ASSEMBLAGES (Full characterisation in text)
1	PLEISTOCENE	N23 / N22	A-1 / A-2	A-1 / A-2	TOP of section — Modern sea-floor assemblage of eastern Gippsland with *Pulleniatina G'quad dutertrei* and *G'alia tosaensis/truncatulinoides*	A	TOP of section — Sea-floor assemblages of Gippsland continental shelf; with *G'alia inflata* (S.S.) and *G'alia truncatulinoides*
1.6			1.6				
2	LATE/MID PLIOCENE	N21	A-3	A-3	*G'alia inflata* (SS)		
3			3.0				
4		N20 / N19	A-4	A-4	*G'alia crassaformis*; *G'alia puncticulata*		*G'alia inflata* GROUP (S.L.) incl. ? *G'alia puncticulata*; XXXX Keeled *GLOBOROTALIA* spp.
4.2			4.5				
5	EARLY PLIOCENE		B-1	B-1			
5.2							
6							
6.6					*G'alia miotumida conomiozea*		
7	LATE MIOCENE	N17 / N16	B-2	B-2	*G'alia lenguaensis* and *G'alia miotumida miotumida*	B	
8							
9							
10							
10.4		N15 / N14	10.4 C C	C	*G'alia acostaensis*	C	*G'alia mayeri*
11					*G'ina nepenthes* and *G'alia scitula*		
12	MID MIOCENE	N13	12.0		*G'alia miotumida miotumida*		*G'alia conica*
		N12 N11 N10	D-1 D	D-1	XXXX *G'alia miozea miozea* and *G.praescitula*; *G'alia praefoshi*; *G'alia peripheroacuta*; Specific diversity decline of *GLOBIGERINOIDES* spp.	D	
13.5				D-2			
14		N9	D-2		MM *Orb. universa*		*Orb universa*
14.5			E-1 E-1	E-1	MM *ORBULINA* DATUM-as *Orb.suturalis*	E-1	*Orb suturalis*
15			15.0 E-2 E-2	E-2	MM *PRAEORBULINA GLOMEROSA* (see text)	E-2	*Praeorb glomerosa*
15.0							
15.5		N8 / N7	F F	F	Diversification *GLOBIGERINOIDES*; with *G'OIDES BISPHERICUS* (see text)	F	*G'oides bisphericus*
16							
17							
17.5							
18		N6					
19	EARLY MIOCENE		G G	G	*G'alia miozea miozea*	G	
20		N5					
21							
22							
22.5					*GLOBIGERINOIDES TRILOBUS* GROUP-see text; *G'alia kugleri*		*G'oides trilobus*; *G'quad dehiscens* (S.S.)
23		N4	H-1 H	H-1	*G'alia kugleri* & *G'quad dehiscens* (S.S.)	H	
24			24.0		MM *G'ina woodi connecta*		
24.0			H-2	H-2			
25			25.0		MM *G'ina woodi woodi*; XXXX *G'alia opima opima*		*G'ina woodi woodi*; XXX *G'alia opima opima*
		N3 (=P22)	I-1	I-1	*G'quad dehiscens* (S.L.)		
26			26.0			I	*Guembelitria* or XXX *G'alia testarugosa* and *G. extans*
27	LATE OLIGOCENE	N2 (=P21)	I		Planktonic assemblage not recognised		
28			I-2			I-2	
29							
30			30.0		XXXX *G'ina angiporoides angiporoides*		*G'alia opima opima*; XXX *Chiloguembelina*
31		N1 (=P20)	J			J	
32		?-?	J-1	J-1			*G'ina angiporoides angiporoides*
32.0			33.0				
34	EARLY OLIGOCENE				XXXX *G'ina brevis* & *G'alia gemma*		Planktonic assemblage not recognised
34.5		?-?- P19					
35		P18	35.5 J-2	J-2			
36							
37		P17	37.0			K	XXX *G'theka* & *G'ina linaperta*; *G'ina brevis*
37.0			K 38.0				
38	LATE EOCENE	P16					Planktonic assemblages nowhere recognised in Gippsland Basin.
39		P15.					
40			40.0				XXX *G'alia primitiva, G. renzi G. collactea, G'ina angiporoides minima*
40.0							
41		P14					
42							
43		P13	N			N	
44	MID EOCENE						
45		P12					
46			46.0				*G'theka index*; XX *G'ina frontosa* & *G'ina higginsi*
47		P11	O			O	
47.5			47.5				*G'alia centralis Plan.wilcoxensis* & XXX *G'alia australiformis*
48		P10	P			P	
49			49.0				*G'ina frontosa*
49.0	EARLY EOCENE	P9	Base of Gippsland foram. sequence				BASE OF GIPPSLAND PLANKTONIC FORAM SEQUENCE
50							

DISLOCATION of BIO-CHARACTER with DIRECT SUPER-POSITION of MULTIPLE-LAYER ASSEMBLAGES upon MINIMAL-LAYER ASSEMBLAGES in SOME OFFSHORE SECTIONS.

Pre-Oligocene multiple layers assemblages have not been recognised in the Gippsland Basin.

BIO-EVENT SYMBOLS

- local arrival of taxon
- MM Morphometric fragmentation of lineage (see text)
- XXXX local departure of taxon
- brief transient presence of taxon
- †††† disjunct range when compared with multiple layer assemblage zones

SUMMARY PLANKTONIC FORAMINIFERAL BIOSTRATIGRAPHY - GIPPSLAND BASIN (Final draft to accompany M.S.)

 September, 1981.