Supplementary Data.—Benthic foraminiferal counts of the Zumaia Paleocene–Eocene section.

Species	Zu-280	Zu-200	Zu-140	Zu--90	Zu-50	Zu 0-6	Zu 10-17	Zu 22-30	Zu 30-40	Zu 40-45	Zu 50-60	Zu 90	Zu 110	Zu 140	Zu 170	Zu 210	Zu 230	Zu 260	Zu 320	Zu 380	Zu 430	Zu 465	Zu 560	Zu 600	Zu 700
Ammobaculites sp.	1																								
Ammodiscus cretaceus	1	6	3	8		3	2		4	1						1									
Ammodiscus latus		5	1	5	1	1	1		1		1					1		2							1
Ammodiscus sp.	1								2	1					3		2	1		2				2	
Ammosphaeroidina pseudopauciloculata	2	3	4	4		7	2	8	5	2	7	1	2	3		2		2	2			2	1	1	4
Arenobulimina truncata	4					3	1		15																
Bathysiphon spp.	16	3	6	10	4	2	5	3	3	3	1		2		2	7	2	3		2		2	3	2	4
Caudammina ovuloides						5			1	1															
Caudammina ovulum	2	1								1				2	2										
Caudammina sp.	1															2		2		1					
Clavulinoides amorpha	1						6		3																
Clavulinoides globulifera	2						1		2																
Clavulinoides trilatera							4																		
Clavulinoides spp.	3	5			2		4	2	8		1						1								
Cribrostomoides sp.										3	3	1	1	2					1						
Cribrostomoides trinitatensis		3			1	1	1							1		1									1
Dorothia bulleta																									
Dorothia crassa	1	2	3	6	4	2	5	2	7																
Dorothia cylindracea		1	2		1	12	2																		
Dorothia pupa	3					2	2	2																	
Marsonella trochoides?			1					1																	
Dorothia sp.	1					8	3																		
Gaudryina pyramidata	9	3		6		4	4																		
Gaudryina sp.				1					3													3	1		1
Glomospira irregularis																									
Glomospira serpens			1	5		2			1							3									2
Glomospira sp.										3			1		2			2	1					2	3
Glomospirella sp.			3			1			1	1	1					3		5	2			1			3
Haplophragmoides walteri	1	4		1	2	4	4	2	4										4				2		
Haplophragmoides spp.	1	1		6	1	3	2	1	10	5	11	1	4		12	7		5	6	16	2	6		10	6
Hyperammina dilatata	1	2	3	3	1	2	1		1																2
Hyperammina sp.		1		5	1															2					
Karrerulina conversa	3	9	12	10	2		7	4	6	17	5		13	10	5	13	7	9	11	18	7	10	5	9	20
Karrerulina horrida	5	12	12	6			2		1		1			3		10			3						
Karrerulina spp.			4			2				7	10		5		7	9	4	16			2	3		1	29
Lituotuba lituiformis			2																						
Marssonella floridana			7	10	3	3	10	2	3																
Marssonella cf. *oxycona*																									
Marssonella trinitatensis																									
Marssonella sp. juvenile																		1							
Paratrochamminoides spp.		1		3																					
Praesphaerammina gerochi																									
Psammosphaera irregularis																									
Psammosphaera sp.																									
Quasispiroplectammina cf. *embaensis*																									
Recurvoides nucleolus																									
Recurvoides spp.	14	23	15	24	6	26	12	11	14	37	49	3	6		10	30	7	16	4	2	2	13	6	6	30
Remesella varians	5	3	13		3	1	4	10	6		1														
Reophax sp.		5	1		1	1		2		4												2			1
Repmanina charoides	5	2	6	7	5	10	2	3	11	4	19	1	3	4	4	27	11	34	5	23	16	10	19	26	19
Rhabdammina sp.		10																							
Rhizammina spp.	3	8	3	9	4	3	3	3	2	1	1		1		1	5		1	4	6	3		1	5	2
Rzehakina epigona				1																					
Rzehakina sp.		2																							
Saccammina placenta	4	2	2	1	1	2	4	2	2	3	4		1	4		4	3		3			2			1
Saccammina sp.	1	1				2			4	1	7			1	4		1	1	3		2			3	
Spiroplectammina israelskyi		1		2																					
Spiroplectammina spectabilis			2	4	2	5	3		1		3														
Spiroplectammina navarroana	6	22	10	11	6		2		7					3		4	6	11		16		2		3	
Spiroplectammina sp.											1										1		1		
Subreophax sp.		1	9	2	6		1		3						1	2									
Subreophax scalaris						3		2																	
Subreophax velascoensis	2			2		2						1													
Trochammina globigeriniformis	1		1																						
Trochamminids	65	39	82	55	13	30	17	15	38	155	168	14	75	1	52	74	48	44	35	58	34	10	12	23	40
Trochamminoides proteus	4	1	6	2		7	4		2		2	1		1								1	2		7
Abyssammina sp.						2	2																		1
Abyssamina quadrata							2	5											1	5	31	2		1	
Alabamina cf. *creta*																									
Alabamina sp.																									
Allomorphina sp.						1																			
Allomorphina velascoensis=trochoides	1	1	2	1	2	3	4		2																
Angulogavelinella avnimelechi	13																								
Angulogerina sp.																							26		3
Anomalinoides ammonoides	14	16	25	28	26	24	29	30	31		1									3	2	6	3	10	4
Anomalinoides acutus		3				1	3		5								2								
Anomalinoides midwayensis																							3		
Anomalinoides cf. *praeacutus*																						3	11		
Anomalinoides rubiginosus	5		4	1	4	1	2																		
Anomalinoides spissiformis																									
Cibicidoides ekblomi	4	5	3	1	5																1		51	5	3

Anomalinoides spp.	2	5	1	2	2	7	4	1	5							4	4	2	5	4	7	3	6	12	
Aragonia sp.																									
Aragonia aragonensis		1	1		1												2	1	27	7	3			1	1
Astacolus spp.	2	2	3	4	2		1		1														2		
Bifarina sp.																									
Bolivina sp.						2	4	2										1				1	12		
Bolivinoides delicatulus		2		4	1	4	2	4																	
Brizalina sp.																					1		1		
Buchnerina sp.																									
Bulimina spp.	1	1					3		1				1			7		3				5	2		1
Bulimina alazanensis							1																		
Bulimina midwayensis		1	1			2			3										3	1		1			4
Bulimina sp. 1	2	1	3		3																				
Bulimina trinitatensis		3		8		1	1		2		1										5	3	5		1
Bulimina tuxpamensis									1		1				6	24	19	18	19	15	39	20	15	10	4
Bulimina velascoensis																									
Buliminella beaumonti	4						5		3		1								13						
Buliminella grata		1	3		2		4	1																	
Buliminella sp.								1			1							1							2
Cibicidoides dayi	1		4	1	2				2																
Cibicidoides hyphalus	5	1	4	2	1		4	4	2											1					
Cibicidoides howelli	3	3	1	3	1	1	7		1														4		
Cibicidoides pseudoacutus				1																					
Cibicidoides pseudopertucidus	6					9	29	28	6						1		44	10		17	23	35			
Cibicidoides proprius																							1		
Cibicidoides velascoensis			9		1	1	1																		
Cibicidoides spp.	1	2											2		1	2		1	2		4	7	8	5	
Conorbina sp.											1														
Coryphostoma spp.								1																	1
Coryphostoma midwayensis			1		2	1	2	3	1																
Dimorphina sp.		2																							
Ellipsoidella		1																							
Ellipsodimorphina sp.	2			1		2																2			3
Ellipsoglandulina	2	4	3			2	1	3	1								1					3	3	1	3
Ellipsopolymorphina sp.	1							1																	
Eouvigerina sp.																									
Fissurina sp.	4		4	4	4	4	3	2	2													4	1		
Fursenkoina tegulata																									
Fursenkoina cf. *tegulata*																									
Fursenkoina spp.																									
Glandulina spp.		1	1			2																			
Globobulimina spp.			1	3	2																				
Globocassidulina subglobosa																2	19	1	88	26	27		3	6	
Globulina prisca	1				1																				
Globulina sp.	6	4	2	6	3	1	1															5			
Guttulina spp.			1		1																				
Globorotalites sp.																									
Gyroidinoides beissell	2	2	5	5	2		7	8	4													7	2		
Gyroidinoides depressus	1	2	1	2	3		2	4	4	1	1												2	2	3
Gyroidinoides globosus	5	7	5	7	5	3	9	8	4																
Gyroidinoides girardanus	1			4			1																		
Gyroidinoides quadratus				2		1																			
Gyroidinoides subangulatus			2			1	1																		
Gyroidinoides spp.	1	1	5				2		2	1	1					1	3					1	1		2
Laevidentalina spp.	10	33	9	21	12	4	14	15	6						1			2	2	2	3	3	3	6	5
Lagena spp.	2	5	2	1		2		5	2													2			
Lenticulina spp.	5	8	6	7	3	13	7	16	9												1	4	3		8
Hemirobulina sp.																									
Neoflabellina semireticulata						1	1																		
Nonion havanense																					4	5	6	12	9
Nonionella cf. cretacea				1																3			2		
Nonionella sp.	1						2		1													1			
Nuttallides sp.				3																					
Nuttallides truempyi	8	17	19	24	13	27	10	34	9	2	2					34	102	64	218	70	75	107	72	79	44
Nuttallinella coronula																									
Nuttallinella florealis	8	12	5	8	6	2	3		5																
Nuttallinella sp.	8		3	1	1			4								2		2			3	1	5		1
Oridorsalis plummerae	1		6					3										4				1			
Oridorsalis umbonatus	6	15	4	12	2	5	6	11	17		1						6	9	35	8	11	31	14	30	29
Oridorsalis sp.					2				1							2				2					
Osangularia plummerae																									
Osangularia velascoensis	7		8		5	14	16	14	29		1														
Osangularia spp.		3		2	1	2			2								6	7		2	3	2	3	9	1
Paliolatella orbygniana																									
Paralabamina hillebrandti		4	1	2																			1		
Paralabamina lunata																									
Pleurostomella sp.	5	3	1		2					2							2			1	1	1		3	1
Praebulimina sp.	2	1		3					2									1					1		
Praeglobobulimina sp.						3																			
Pseudopolymorphina sp.	1						1																		
Pseudouvigerina plummerae		6		1			4		1																
Pseudouvigerina sp.																									
Pullenia cretacea	1			4		3	4	4	5		1														
Pullenia coryeli		1				5			2																
Pullenia jarvisi		1	2	5		4	4	8	9																1

Pullenia quinqueloba	1																								
Pyramidina rudita				1	3																				
***Pyramidina* sp.**	1		2																		1				
***Pyrulina* sp.**	2	5		1																			1	1	
***Pyrulinoides* spp.**	2		2		1	5	1	2															2		
Quadratobulimnella pyramidalis	1					3	2																		
Quadrimorphina allomorphinoides			2																1						
***Reussoolina* sp.**																									
***Saracenaria* sp.**		1	2																						
Sitella sp.				1					1																
Stensioeina beccariiformis	22	22	8	3	13	7	22	6																	
***Stillostomella* sp.**				1																3	2				
Tappanina selmensis		4	1		2	2	1						1						2	1	8		3	5	1
***Trifarina* sp.**																									
Valvalabamina lenticula		3		1			1																		
TOTAL	353	398	392	402	212	337	357	303	355	256	309	23	118	35	114	283	302	282	500	317	324	333	331	291	312