57. DSDP LEG 42A BIOSTRATIGRAPHIC RANGE CHARTS

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INTRODUCTION

Of the eight sites drilled on Leg 42A, all penetrated Pleistocene sediments, all except Site 377 penetrated Pliocene sediments, and all but Holes 373A and 377 penetrated the Mediterranean Evaporite Formation. However, this formation could be dated paleontologically only at Sites 372, 375, and 376, and no real age determination could be given for evaporites at Sites 371, 374, and 378.

Miocene sediments were recovered at Sites 372, 375, and 377 and penetration was as far as lower Burdigalian at Sites 372 and 375.

Range charts are provided here for planktonic and benthonic foraminifers but not for nannofossils, as these appear elsewhere (Müller, this volume). Also displayed is other information gleaned by the shipboard paleontologists both on other fossil groups and on minerals recorded in the sand-size fraction of their sieved samples greater than 63 microns.

CONTENTS

Range Charts By M. B. Cita

(1) Plio-Pleistocene: Site 371; 37°36′N, 05°14′E; water depth 2750m.

(2) Plio-Pleistocene: Site 372; 40°01.90′N, 04°47.79′E; water depth 2695m.

(3) Early and middle Miocene: Site 372 (below Core 13).

(4) Plio-Pleistocene: Hole 373A; 39°44′N, 13°00′E; water depth 3650m.

(5) Plio-Pleistocene: Site 374; 35°50.87′N, 18°11.78′E; water depth 4078m.

(6) Plio-Pleistocene: Site 376; 34°52.32′N, 31°48.45′E; water depth 2101 m.

(7) Early and middle Miocene: Site 375 (below Core 7); 34°45.74′N, 31°45.58′E; water depth 1900m.

(8) Complete Section: Site 377; 35°09.25′N, 21°25.86′E; water depth 3718m.

(9) Plio-Pleistocene: Hole 378; 35°56.67′N, 25°06.87′E; water depth 1835m.

(10) Plio-Pleistocene: Hole 378A; 35°55.67′N, 25°06.97′E, water depth 1835m.

Additional range-charts by M. B. Cita are provided in Cita et al., (this volume), for Site 372, Cores 4 to 13, and for Site 375, Cores 4 to 7.

Range Charts By G. Bizon: All Sites Except 373A And 377

(11) Site 371, Cores 1 to 8
(12) Site 372, Cores 1 to 6
(13) Site 372, Cores 9 to 15
(14) Site 372, Cores 16 to 23
(15) Site 372, Cores 24 to 32
(16) Site 372, Cores 33 to 46
(17) Site 374, Cores 1 to 7
(18) Site 374, Cores 8 to 15
(19) Site 375, Cores 1 to 7
(20) Site 375, Cores 8 to 13
(21) Site 376, Cores 1 to 5
(22) Site 376, Cores 6 to 15
(23) Hole 378, Cores 1 to 7
(24) Hole 378A, Cores 1 to 4

Range Charts By R. Wright: All Sites

Note: The distributional data shown in these tables are not based on the study of equal sized samples nor on samples which were equally spaced stratigraphically. Samples from Sites 372, 374, and 376 were studied in much greater detail than those of the other sites; samples from the Messinian Stage and the stratigraphic intervals just above and below it were examined more closely than those of other intervals. The information in the tables reflects this bias. The greatest number of species is shown to be present in samples from these above mentioned sites and intervals, but this is probably a consequence only of their intense examination.

Although 79 of the 211 samples were examined quantitatively, the only information shown on the charts is qualitative—the presence of taxa in a sample.

The biostratigraphic zonation used in these charts is based on the studies of planktonic foraminifers and calcareous nannoplankton by the other shipboard paleontologists. Where major differences in zonation occur, e.g., Site 372, Core 9, the different interpretations are shown on the charts.

Instead of dividing the Pliocene into the standard stages: Zanclean (Tabianian) and Piacenzian, the

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planktonic foraminiferal biozonation of Cita (1975) is used here to provide further precision. Standard stage names are used for the Miocene strata.

Taxonomic notes and illustrations of the most abundant species are given in Wright (this volume).

The charts are:

(25) Site 371
(26) Site 372
(27) Hole 373A
(28) Site 374
(29) Site 375
(30) Site 376
(31) Site 377
(32) Holes 378/378A

Range-Charts By C. Müller (nannofossils)

Range charts for all sites, except Hole 373A and Site 377, appear in Müller, this volume.

REFERENCES

Cita, M. B., 1975. Planktonic foraminiferal biozonation of the Mediterranean Pliocene deep sea record. A revision: Riv. Ital. Paleont., v. 81, no. 4, p. 527-544.

Bizon, G. and Bizon, J.-J., 1972. Atlas des principaux foraminifères planctoniques du bassin méditerranéen, oligocène à quaternaire. Technip. ed., p. 1-316.

Blow, W. H., 1969. Late middle Eocene to Recent planktonic foraminiferal biostratigraphy. Brill ed., p. 199-421.

TABLE 1
Occurrence Ranges of Plio-Pleistocene Planktonic Foraminifers and Other Fossils at Site 371

Depth Below Bottom (m)	Sample (cm from top)	Globigerina											Globigerinoides											
		apertura	*bulbosa*	*bulloides*	*digitata-praedigitata*	*eggeri*	*falconensis*	*microstoma*	*pachyderma*	*quinqueloba*	*radians*	*rubescens*	*conglobatus*	*elongatus*	*gomitulus*	*helicinus*	*obliquus obliquus*	*obliquus extremus*	*pyramidalis*	*quadrilobatus*	*ruber*	*sacculifer*	*tenellus*	*trilobus*
0-9.5	1-2, 42		X	X					X	X		X		X							X			
0-9.5	1-3, 64		X			X			X	X		X		X							X		X	
0-9.5	1-4, 0					X			X	X	X										X			
0-9.5	1-5, 110			X		X			X	X		X									X		X	
0-9.5	1-6, 90			X		X			X	X											X		X	
0-9.5	1, CC		X	X					X	X					X				X		X			
199.5-209	2-1, 115			X	X	X			X	X				X	X						X			
199.5-209	2-2, 21		X	X						X				X	X						X			
199.5-209	2-2, 70		X				X		X	X				X						X	X		X	
199.5-209	2-3, 40			X		X	X		X	X				X	X			X	X		X			
199.5-209	2, CC			X		X	X		X	X				X							X			X
361-370	3-1, 95		X	X			X			X				X				X			X			
361-370	3-2, 63																							
361-370	3-3, 100			X			X		X	X				X							X			
361-370	3-4, 37		X	X		X	X			X				X		X		X			X			
361-370	3-5, 91			X			X			X			X	X				X						
361-370	3-5, 94			X			X			X			X	X				X						
361-370	3-5, 114		X	X		X	X			X			X	X		X		X			X	X		
361-370	3-6, 83			X		X	X		X					X				X			X			
361-370	3, CC	X		X						X				X				X			X			X
408.5-418	4-1, 147	X					X							X	X			X		X		X		X
408.5-418	4-2, 122	X	X	X			X			X								X		X		X		X
408.5-418	4-3, 6	X	X					X		X				X	X			X						X
408.5-418	4-4, 20	X		X			X			X				X				X		X		X		X
408.5-418	4-4, 60	X	X	X			X	X	X					X			X	X	X					
408.5-418	4-4, 90	X	X											X							X	X		X
408.5-418	4-4, 134	X					X							X	X			X		X	X			
408.5-418	4-4, 137			X			X							X				X			X			
408.5-418	4-5, 55	X	X			X	X	X						X				X		X		X		X
408.5-418	4-5, 90	X	X				X								X	X		X		X	X	X		X
408.5-418	4-6, 40	X		X			X	X						X	X			X						
408.5-418	4-6, 130		X				X	X		X				X	X	X		X		X	X	X		X
408.5-418	4, CC	X		X			X			X				X	X	X		X			X			X
465.5-475	5-0, 38	X	X	X			X			X								X			X	X		X
465.5-475	5-1, 10	X	X	X			X	X		X					X			X				X		X
465.5-475	5-2, 92	X	X	X			X			X				X				X			X	X		X
465.5-475	5-3, 99	X		X			X	X		X								X			X	X		
465.5-475	5-4, 14		X	X			X	X										X		X	X	X		X
465.5-475	5-6, 88	X	X	X			X			X								X		X		X		X
465.5-475	5, CC	X		X			X	X		X								X		X	X	X		X
513-518	6, CC	X		X											X			X	X	X	X	X		X
522.5-527	7, CC	X		X			X			X							X	X		X				X
546-551	8-1, 52									X								X		X				X

Depth Below Bottom (m)	Sample (cm from top)	Globorotalia																									
		acostaensis	*aemiliana*	*bononiensis*	*crassaformis*	*crassaformis viola*	*inflata*	*margaritae evoluta*	*margaritae margaritae*	*margaritae primitiva*	*obesa*	*oscitans*	*pseudopachyderma*	*puncticulata*	*puncticulata hadana*	*scitula*	*truncatulinoides*	*Globigerinita glutinata*	*Globigerinita uvula*	*Globoquadrina altispira*	*Hastigerina siphonifera*	*Orbulina bilobata*	*Orbulina universa*	*Sphaeroidinella dehiscens*	*Sphaeroidinella ionica*	*Sphaeroidinellopsis seminulina*	*Sphaeroidinellopsis subdehiscens*
0-9.5	1-2, 42				X		X					X				X	X	X			X						
0-9.5	1-3, 64						X					X				X		X					X				
0-9.5	1-4, 0															X		X									
0-9.5	1-5, 110															X		X					X				
0-9.5	1-6, 90						X									X		X			X		X				
0-9.5	1, CC						X					X				X		X			X		X				
199.5-209	2-1, 115						X											X					X				
199.5-209	2-2, 21						X					X				X		X					X				
199.5-209	2-2, 70						X					X						X			X		X				
199.5-209	2-3, 40															X		X	X		X		X				
199.5-209	2, CC															X		X			X		X				
361-370	3-1, 95						X									X		X			X		X				
361-370	3-2, 63	Practically no fraction > 63 μm																									
361-370	3-3, 100						X					X				X		X			X		X				
361-370	3-4, 37												X			X		X			X		X	X	X		
361-370	3-5, 91															X		X			X		X				
361-370	3-5, 94															X		X			X		X	X	X		
361-370	3-5, 114			X	X											X		X			X	X	X				
361-370	3-6, 83	X											X	X		X							X				
361-370	3, CC		X	X	X	X							X			X		X	X		X		X				
408.5-418	4-1, 147		X											X							X	X	X			X	
408.5-418	4-2, 122																	X			X		X				
408.5-418	4-3, 6		X										X			X		X			X		X		X	X	
408.5-418	4-4, 20	X																X			X		X			X	
408.5-418	4-4, 60		X										X					X		X			X				
408.5-418	4-4, 90																	X				X	X			X	
408.5-418	4-4, 134													X		X							X			X	
408.5-418	4-4, 137	X																			X		X				X
408.5-418	4-5, 55	X																					X				
408.5-418	4-5, 90	X											X					X	X				X				
408.5-418	4-6, 40	X		X	X								X			X		X					X				X
408.5-418	4-6, 130	X									X							X					X				X
408.5-418	4, CC		X		X								X	X				X					X			X	X
465.5-475	5-0, 38													X	X	X		X					X				X
465.5-475	5-1, 10													X									X				X
465.5-475	5-2, 92	X											X	X	X	X		X					X			X	X
465.5-475	5-3, 99												X	X		X		X			X		X			X	X
465.5-475	5-4, 14												X	X		X		X			X		X			X	X
465.5-475	5-6, 88													X		X		X			X		X			X	
465.5-475	5, CC													X		X		X					X				
513-518	6, CC							X	X					X									X				
522.5-527	7, CC								X	X			X	X				X				X	X				X
546-551	8-1, 52							X	X	X										X			X				

Depth Below Bottom (m)	Sample (cm from top)	Other Fossil Remains											Minerals			Zone	Age
		Siliceous spicules	Holothorians	Plant debris	Prodissoconchs	Pteropods	Ostracodes	Echinoid spines	Organic matter	Otoliths	Fish teeth	Spores	Pyrite	Detritus (mica, quartz)	Glauconite		
0-9.5	1-2, 42				X	X										N22	Pleistocene-Holocene
0-9.5	1-3, 64		X	X	X	X								X			
0-9.5	1-4, 0		X		X	X	X	X	X								
0-9.5	1-5, 110					X	X					X					
0-9.5	1-6, 90		X			X	X	X	X								
0-9.5	1, CC					X	X	X	X					X			
199.5-209	2-1, 115																
199.5-209	2-2, 21																
199.5-209	2-2, 70							X						X			
199.5-209	2-3, 40						X		X					X			
199.5-209	2, CC							X	X				X	X			
361-370	3-1, 95						X	X	X					X			
361-370	3-2, 63																
361-370	3-3, 100							X						X			
361-370	3-4, 37								X		X			X		M-P15[a]	
361-370	3-5, 91						X							X			
361-370	3-5, 94													X			
361-370	3-5, 114													X			
361-370	3-6, 83							X	X					X			
361-370	3, CC			X			X	X					X	X			
408.5-418	4-1, 147						X	X	X							M-P14	Late Pliocene
408.5-418	4-2, 122			X										X	X		
408.5-418	4-3, 6							X						X			
408.5-418	4-4, 20													X			
408.5-418	4-4, 60							X	X					X	X		
408.5-418	4-4, 90													X			
408.5-418	4-4, 134							X					X	X			
408.5-418	4-4, 137	X					X	X						X			
408.5-418	4-5, 55													X			
408.5-418	4-5, 90								X					X	X		
408.5-418	4-6, 40							X						X			
408.5-418	4-6, 130			X				X						X			
408.5-418	4, CC			X			X	X						X			
465.5-475	5-0, 38						X	X	X					X			
465.5-475	5-1, 10						X							X			
465.5-475	5-2, 92						X	X	X					X			
465.5-475	5-3, 99							X	X					X			
465.5-475	5-4, 14			X					X					X	X		
465.5-475	5-6, 88			X				X	X					X			
465.5-475	5, CC							X						X			
513-518	6, CC													X		M-P13	Early Pliocene
522.5-527	7, CC			X										X	X		
546-551	8-1, 52													X			

[a]Probably an artificial contact.

TABLE 2
Occurrence Ranges of Plio-Pleistocene Planktonic Foraminifers and Other Fossils at Site 272

Depth Below Bottom (m)	Sample (cm from top)	*Globigerina apertura*	*bulbosa*	*bulloides*	*eggeri*	*falconensis*	*microstoma*	*pachyderma*	*quinqueloba*	*rubescens*	*Globigerinoides conglobatus*	*elongatus*	*cf. fistulosus*	*gomitulus*	*helicinus*	*obliquus obliquus*	*obliquus extremus*	*pyramidalis*	*quadrilobatus*	*ruber*	*sacculifer*	*trilobus*
112-121.5	1-1, 145		X	X		X		X	X	X								X		X		X
	1-2, 40			X		X		X	X			X							X	X		
	1-3, 70		X	X	X			X	X											X		
	1-4, 52			X				X	X											X		
	1, CC			X		X						X	X							X		
131-140.5	2-1, 140			X							X	X			X		X		X	X	X	
	2-2, 40		X	X			X				X	X			X		X	X		X	X	
	2-4, 60	X		X					X			X		X			X			X		
	2, CC	X		X		X	X				X	X					X		X			
140.5-150	3-1, 105			X								X			X		X		X	X	X	X
	3-2, 130			X								X					X		X		X	X
	3-3, 30	X	X	X		X	X										X		X		X	X
	3, CC	X		X		X	X										X				X	X

Depth Below Bottom (m)	Sample (cm from top)	*Globorotalia aemiliana*	*crassaformis*	*crassaformis viola*	*inflata*	*oscitans*	*margaritae evoluta*	*margaritae margaritae*	*menardii*	*pseudopachyderma*	*puncticulata*	*scitula*	*tosaensis*	*truncatulinoides*	*Globigerinita glutinata*	*Globoquadrina altispira*	*Hastigerina siphonifera*	*Orbulina bilobata*	*Orbulina universa*	*Sphaeroidinella dehiscens*	*Sphaeroidinella ionica*	*Sphaeroidinellopsis seminulina*	*Sphaeroidinellopsis subdehiscens*
112-121.5	1-1, 145				X	X						X			X		X						
	1-2, 40				X										X				X				
	1-3, 70				X	X						X							X				
	1-4, 52		X		X							X			X				X				
	1, CC		X	X	X	X								X			X		X				
131-140.5	2-1, 140		X		X				X			X	X				X		X	X	X		
	2-2, 40				X										X		X	X	X				
	2-4, 60		X	X						X					X		X		X				
	2, CC	X	X									X							X				
140.5-150	3-1, 105	X	X								X						X		X				
	3-2, 130	X	X						X		X								X			X	X
	3-3, 30						X	X			X					X			X			X	X
	3, CC		X				X	X			X					X	X		X				X

Depth Below Bottom (m)	Sample (cm from top)	Other Fossil Remains: Ostracodes	Echinoid spines	Organic matter	Otoliths	Fish teeth	Minerals: Detritus (quartz, mica)	Gypsum	Glauconite	Zone	Age
112-121.5	1-1, 145		X		X		X		X	N22	Pleistocene
	1-2, 40						X		X		
	1-3, 70		X	X			X				
	1-4, 52						X				
	1, CC										
131-140.5	2-1, 140	X							X	M-P15	L. Pleistocene
	2-2, 40	X							X		
	2-4, 60			X		X			X		
	2, CC	X							X		
140.5-150	3-1, 105	X	X	X					X		
	3-2, 130	X		X			X	X	X	M-P14	
	3-3, 30									M-P13	E. Plioc.
	3, CC										

TABLE 3
Occurrence Ranges of Early and Middle Miocene Planktonic Foraminifers at Site 372

Depth Below Bottom (m)	Sample (cm from top)	Globigerina										Globigerinoides							Globorotalia													Globoquadrina																											Zone		Age
		angustiumbilicata	bollii	bradyi	druryi	falconensis	foliata	praebulloides	quinqueloba	venezuelana	woodi	altiapertura	bisphaericus	obliquus	quadrilobatus	sacculifer	subquadratus	trilobus	acrostoma	archaeomenardii	birnageae s.l.	continuosa	cultrata gr.	miozea	obesa	cf. peripheroacuta	peripheronda	praemenardii	praescitula	gr. scitula	siakensis	altispira altispira	altispira globosa	baroemoenensis	dehiscens	langhiana	larmeui	Cassigerinella chipolensis	Globigerinita dissimilis	Globigerinita glutinata	Globigerinita stainforthi	Globigerinita unicava	Globigerinopsis aguasayensis	Globigerinopsoides sp.	Globorotalia ciperoensis	Globorotalia mayeri	Globorotalia opima nana	Globorotaloides suteri	Hastigerina siphonifera	Orbulina bilobata	Orbulina suturalis	Orbulina universa	Praeorbulina glomerosa circularis	Praeorbulina glomerosa curva	Praeorbulina glomerosa glomerosa	Praeorbulina transitoria	Sphaeroidinellopsis seminulina	Sphaeroidinellopsis subdehiscens	Blow, 1969	Bizon and Bizon, 1972	Age
245-254.5	14-1, 40	X		X	X	X		X	X								X							X	X			X		X	X	X	X	X						X			X	X		X				X	X	X							N13	Globorotalia mayeri	Serravalian
	14-2, 40				X		X	X	X						X	X		X				X		X	X			X		X		X			X					X						X				X	X	X									
	14-3, 40	X		X	X		X	X	X						X	X	X	X							X					X	X				X					X			X							X	X	X									
	14-4, 40							X	X						X	X														X	X	X								X						X			X			X									
	14-5, 40	X		X	X	X		X	X					X	X	X		X					X		X					X		X	X							X			X	X						X	X	X									
	14-6, 40				X				X						X	X		X				X		X	X			X		X		X			X					X						X			X		X	X									
	14, CC				X			X	X						X	X		X				X		X	X			X		X	X	X			X					X											X	X									
254.5-264	15-2, 30	X		X	X	X	X		X						X	X		X				X			X			X				X	X	X						X			X	X						X	X	X									
	15-3, 60	X			X	X		X							X	X		X				X		X	X						X	X			X					X						X				X		X									
	15-4, 40	X		X			X	X	X					X	X	X	X	X				X	X	X	X			X		X	X	X	X							X			X							X	X	X					X	X			
	15-5, 40	X					X		X						X	X		X				X		X				X		X	X?	X								X						X			X			X							N12		
	15-6, 40	X		X				X	X		X			X	X	X	X	X				X	X	X	X			X		X	X	X	X							X			X	X						X	X	X									
	15, CC	X		X				X	X						X	X		X				X		X	X			X		X	X	X								X										X	X	X									
264-273.5	16-1, 50	X		X			X		X						X	X		X				X		X				X		X		X								X						X			X			X									
	16-2, 40	X		X	X	X	X	X	X					X	X	X	X	X				X	X	X	X			X		X	X	X	X							X										X	X	X									
	16-3, 30	X					X	X							X	X		X					X								X	X								X						X			X			X									
	16-4, 40																																																	X	X	X									
	16-5, 40	X																				X									X									X						X				X	X	X									
	16-6, 70																																													X				X	X	X									
	16, CC	X			X			X							X	X	X	X						X	X			X			X	X								X									X	X	X	X									
273.5-283	17-1, 70	X			X	X	X	X					X				X	X	X			X			X																					X			X		X	X									
	17-2, 40	X		X	X	X	X	X	X															X	X			X		X		X	X							X			X							X	X	X									
	17-3, 60	X						X							X			X	X			X		X				X			X	X			X					X						X			X		X	X									
	17-4, 80	X		X		X	X	X	X		X				X	X								X	X					X	X	X	X	X	X					X										X	X	X									
	17-5, 40	X				X	X	X							X	X		X	X			X		X	X							X								X						X					X	X									
	17-6, 130	X		X	X	X		X	X		X			X	X	X								X	X			X			X	X	X	X						X										X	X	X									
	17, CC														X	X		X				X			X						X	X								X						X						X									
283-292.5	18-1, 120	X			X	X									X	X		X				X		X	X							X								X						X			X			X									
	18-2, 71	X		X		X	X	X	X						X	X									X					X	X	X	X	X						X						X						X									
	18-3, 130	X				X		X	X						X	X		X	X											X	X									X						X						X									
	18-4, 40	X		X	X	X	X	X	X		X				X	X									X					X	X	X	X	X						X			X	X						X	X	X									
	18-5, 40	X					X	X							X	X	X	X				X			X			X		X	X	X								X			X	X		X						X				X					
	18-6, 40	X		X		X	X	X	X		X			X	X	X	X							X	X			X		X	X	X	X	X	X					X			X	X						X	X	X									
	18, CC		X													X								X					X		X		X							X						X					X										
292.5-302	19-1, 70	X				X	X							X	X	X	X	X							X					X	X	X								X						X						X									
	19-2, 20	X		X		X		X	X						X	X								X	X						X	X	X	X						X										X	X	X									
	19-3, 10				X	X		X							X	X		X				X		X	X			X			X	X								X						X					X	X									
	19-4, 130	X		X	X	X	X	X	X					X	X	X	X								X			X		X	X		X	X	X					X			X							X	X	X									
	19-5, 30	X					X	X							X	X		X				X									X	X								X						X					X	X									
	19-6-40	X		X	X	X	X	X	X						X	X									X					X	X	X	X	X	X					X			X							X	X	X									
	19, CC	X				X		X							X	X		X											X			X				X			X						X					X	X									
302-311.5	20-1, 30	X				X									X	X		X							X					X	X	X								X						X						X									
	20-2, 40	X		X	X	X		X	X						X	X								X						X	X	X	X	X						X										X	X	X									
	20-4, 80	X		X	X	X	X	X	X						X	X								X	X			X		X	X	X	X	X						X											X	X									
	20-5, 60	X	X			X	X		X							X		X						X	X			X		X		X								X									X			X									
	20-6, 40	X		X	X	X	X	X	X						X	X								X	X					X	X	X	X	X						X										X	X	X									
	20, CC	X				X	X	X							X			X						X	X					X	X																		X			X									
5-321	21-2, 120	X		X	X	X	X	X						X	X	X		X						X						X		X	X	X						X										X	X	X									
	21-3, 10				X	X	X	X								X		X						X	X			X		X		X								X									X		X	X									
	21-4, 10	X		X	X	X	X	X							X	X		X						X	X			X		X		X	X	X						X			X			X					X	X									

TABLE 3 – *Continued*

Depth Below Bottom (m)	Sample (cm from top)	*Globigerina*										*Globigerinoides*							*Globorotalia*													*Globoquadrina*																												Zone		Age
		angustiumbilicata	*bollii*	*bradyi*	*druryi*	*falconensis*	*foliata*	*praebulloides*	*quinqueloba*	*venezuelana*	*woodi*	*altiapertura*	*bisphaericus*	*obliquus*	*quadrilobatus*	*sacculifer*	*subquadratus*	*trilobus*	*acrostoma*	*archaeomenardii*	*birnageae* s.l.	*continuosa*	*cultrata* gr.	*miozea*	*obesa*	cf. *peripheroacuta*	*peripheroronda*	*praemenardii*	*praescitula*	gr. *scitula*	*siakensis*	*altispira altispira*	*altispira globosa*	*baroemoenensis*	*dehiscens*	*langhiana*	*larmeui*	*Cassigerinella chipolensis*	*Globigerinita dissimilis*	*Globigerinita glutinata*	*Globigerinita stainforthi*	*Globigerinita unicava*	*Globigerinopsis aguasayensis*	*Globigerinopsoides* sp.	*Globorotalia ciperoensis*	*Globorotalia mayeri*	*Globorotalia opima nana*	*Globorotaloides suteri*	*Hastigerina siphonifera*	*Orbulina bilobata*	*Orbulina suturalis*	*Orbulina universa*	*Praeorbulina glomerosa circularis*	*Praeorbulina glomerosa curva*	*Praeorbulina glomerosa glomerosa*	*Praeorbulina transitoria*	*Sphaeroidinellopsis seminulina*	*Sphaeroidinellopsis subdehiscens*	Blow, 1969	Bizon and Bizon, 1972	
311.	21-5, 40	X					X	X								X	X	X						X	X		X			X		X				X														X	X	X							N12	*Globorotalia peripheroronda/Orbulina suturalis*	Serravalian
	21-6, 40	X		X	X	X	X	X							X	X		X						X		X	X			X		X	X	X						X										X	X	X									
	21, CC		X			X		X		X					X	X		X		X				X		X	X	X	X			X				X				X											X	X									
321-330.5	22-1, 130	X				X									X	X		X								X	X	X				X																			X	X				X					
	22-2, 70	X		X			X	X		X					X	X		X						X	X		X			X		X		X						X										X	X	X									
	22-3, 10	X				X		X										X						X			X	X				X								X											X	X									
	22-4, 40	X		X		X	X	X							X	X		X						X	X	X	X			X		X	X	X						X										X	X	X									
	22, CC		X		X	X									X		X	X						X	X		X	X	X		X	X			X					X											X	X	X			X					
330.5-340	23-2, 10	X		X	X	X		X							X	X		X						X	X		X	X		X		X	X	X	X					X										X	X	X							N9		Langhian
	23-3, 70	X						X					X		X	X		X							X		X			X		X			X															X	X	X									
	23-4, 40	X		X		X	X	X							X	X		X						X			X	X		X				X						X										X	X	X									
	23-5, 10	X	X		X	X	X	X							X	X		X				X			X		X		X																				X		X	X									
	23-6, 40	X		X	X	X		X							X	X		X							X		X		X	X		X		X						X										X	X	X									
	23, CC	X					X						X		X	X		X									X		X	X																			X		X	X	X			X					
	24-3, 120	X		X	X		X	X			X				X	X		X							X		X		X	X		X	X	X						X										X	X	X									
	24, CC	X									X		X			X		X									X		X				X																X	X	X	X	X			X					
	25-1, 120	X		X	X	X	X	X					X	X	X			X											X			X	X	X	X	X				X										X	X	X	X								
	25, CC	X	X										X		X			X	X	X		X			X		X		X			X			X					X						X				X	X		X			X					
358-367.5	26-3, 40	X		X	X		X	X					X	X	X	X	X	X							X		X		X	X	X	X		X		X		X		X										X		X	X		X	X	X				
	26, CC												X			X		X				X			X				X		X	X			X			X								X				X	X			X	X	X					
367.5-378	27-2, 40	X	X	X	X	X	X	X		X	X		X	X	X	X	X	X							X		X		X	X	X	X		X		X				X											X		X			X					
	27, CC	X	X			X							X		X	X		X											X		X	X			X	X										X										X					
378-387.5	28-1, 70	X	X	X	X	X		X			X		X		X	X	X	X		X					X		X		X	X	X	X		X	X	X		X		X													X	X	X	X	X		N8	*Praeorbulina glomerosa*	
	28-3, 40	X	X					X					X		X	X		X				X			X				X		X	X				X				X	X								X						X	X					
	28-5, 125	X	X	X	X	X	X	X		X			X		X	X	X	X		X					X		X		X		X	X		X	X	X		X		X													X	X	X	X					
	28, CC	X					X	X					X			X				X					X				X			X			X														X						X	X					
387.5-397	29-1, 60	X	X	X	X	X	X	X					X		X	X	X	X		X					X				X			X		X		X				X														X	X	X					
	29-3, 36		X			X		X					X		X	X		X							X				X			X		X	X	X													X												
	29-5, 80	X		X	X	X		X					X	X	X	X		X			X				X				X			X		X	X			X																X	X	X					
	29, CC	X	X			X		X					X					X							X				X				X			X		X		X									X												
397-406.5	30-2, 110	X				X		X					X		X			X							X				X			X			X	X																			X						
	30-4, 28		X		X	X	X	X		X			X		X	X		X											X		X		X	X		X				X														X	X	X					
	30, CC	X		X		X	X	X					X	X		X	X	X							X		X		X				X		X			X																							
416-425.5	31-2, 43	X	X	X	X			X				X	X	X	X	X	X	X			X				X		X		X			X			X	X													X					X		X					
	31-2, 75	X		X	X	X	X	X						X	X	X		X											X			X		X	X	X	X			X																					
	31-5, 80	X		X	X	X	X	X					X	X	X	X		X							X				X			X		X		X	X			X																					
	31, CC												X			X		X											X						X																										
435-444.5	32-1, 52	X			X	X	X	X					X		X	X	X								X				X						X																									1	2
	32-3, 23	X		X	X	X	X	X		X				X	X	X	X	X	X						X		X		X				X	X	X		X	X		X																			N7		
	32, CC	X						X					X			X	X	X							X		X				X	X	X		X			X											X												

Footnotes: 1 *Globigerinoides trilobus*
2 ?Burdigalian

TABLE 3 – *Continued*

		Globigerina										*Globigerinoides*							*Globorotalia*													*Globoquadrina*																												Zone		
Depth Below Bottom (m)	Sample (cm from top)	*angustiumbilicata*	*bollii*	*bradyi*	*druryi*	*falconensis*	*foliata*	*praebulloides*	*quinqueloba*	*venezuelana*	*woodi*	*altiaperturus*	*bisphaericus*	*obliquus*	*quadrilobatus*	*sacculifer*	*subquadratus*	*trilobus*	*acrostoma*	*archaeomenardii*	*birnageae* s.l.	*continuosa*	*cultrata* gr.	*miozea*	*obesa*	cf. *peripheroacuta*	*peripheroronda*	*praemenardii*	*praescitula*	gr. *scitula*	*siakensis*	*altispira altispira*	*altispira globosa*	*baroemoenensis*	*dehiscens*	*langhiana*	*larmeui*	*Cassigerinella chipolensis*	*Globigerinita dissimilis*	*Globigerinita glutinata*	*Globigerinita stainforthi*	*Globigerinita unicava*	*Globigerinopsis aguasayensis*	*Globigerinopsoides* sp.	*Globorotalia ciperoensis*	*Globorotalia mayeri*	*Globorotalia opima nana*	*Globorotaloides suteri*	*Hastigerina siphonifera*	*Orbulina bilobata*	*Orbulina suturalis*	*Orbulina universa*	*Praeorbulina glomerosa circularis*	*Praeorbulina glomerosa curva*	*Praeorbulina glomerosa glomerosa*	*Praeorbulina transitoria*	*Sphaeroidinellopsis seminulina*	*Sphaeroidinellopsis subdehiscens*	Blow, 1969	Bizon and Bizon, 1972	Age
463.5-473	33-2, 28	X		X	X	X	X	X		X		X			X	X	X	X	X		X				X				X		X	X	X	X	X		X	X		X								X											N7	1	?Burdigalian
	33-3, 40	X		X			X	X		X		X		X	X	X	X	X	X		X				X						X	X	X	X	X	X	X	X							X																
	33-5, 38	X		X			X	X		X		X		X	X	X	X	X	X		X				X						X	X	X	X	X				X	X																					
	33-6, 43	X					X	X							X	X	X		X			X			X									X	X											X															
	33, CC							X								X			X						X						X				X			X								X															
492-501.5	34-4, 55	X						X			X				X		X		X		X				X						X	X	X	X	X			X	X	X																			?N5-N6	?*Catapsydrax dissimilis*/*Globigerinoides altiaperturus*	
	34-5, 30	X					X	X										X				X			X							X			X			X								X															
	34, CC																	X																	X																										
529-538.5	35-1, 130																																																												
	35-2, 20	X						X																								X			X																										
	35, CC	X								X								X	X																X				X								X														
568-577.5	36-1, 40	X				X		X			X					X			X		X				X						X			X	X		X			X								X													
	36-2, 37	X						X							X		X		X														X		X				X							X	X														
	36-3, 127	X						X		X	X							X			X										X				X							X						X													
	36-5, 50	X					X	X		X															X										X																										
	36-6, 60	X		X				X			X				X		X	X	X		X				X				X		X				X		X		X	X							X	X													
	36, CC		X					X										X	X																X				X																						
606-615	37-3, 124	X		X				X		X					X	X			X		X				X						X						X			X								X													
	37, CC										X							X																					X								X														
644-653.5	38-4, 73	X						X			X							X	X		X										X									X																					
	38, CC		X					X		X		X						X																				X	X								X														
682-691.5	39-3, 10	X		X		X		X			X				X				X		X				X						X			X			X		X	X		X			X			X													
	39, CC							X		X	X	X						X	X																				X								X	X													
720-729.5	40-4, 15	X		X																	X																			X					X																
	40, CC									X	X																											X									X														
758-767.5	41-3, 81	X						X			X	X			X	X			X		X				X						X			X			X			X					X																
	41,CC									X					X				X																									X			X														
786.5-796	42-4, 72	X		X				X			X										X				X															X					X																
	42, CC							X		X																												X	X	X					X		X														
796-805.5	43-3, 126	X		X				X			X								X		X										X								X		X				X																
	43, CC						X																															X		X					X		X														
834-843.5	44-3, 46	X						X			X	X			X	X					X				X													X			X				X																
	44, CC							X							X																							X		X					X		X														
872-881.5	45-3, 60	X						X		X	X						X		X		X																																								
	45-5, 1																																							X					X																
	45, CC																																																												
881.5-885	46,CC																																					X									X														

Footnotes: 1 *Globigerinoides trilobus*

TABLE 4
Occurrence Ranges of Plio-Pliestocene Planktonic Foraminifers and Other Fossils at Site 373A

Depth Below Bottom (m)	Sample (Interval in cm)	*Globigerina* *apertura*	*bulbosa*	*bulloides*	*digitata-praedigitata*	*eggeri*	*falconesis*	*pachyderma*	*quinqueloba*	*radians*	*Globigerinoides* *conglobatus*	*elongatus*	*gomitulus*	*helicinus*	*obliquus obliquus*	*obliquus extremus*	*pyramidalis*	*quadrilobatus*	*ruber*	*sacculifer*	*tenellus*	*trilobus*
96.5-106	1-1, 130		X	X				X	X				X									
	1-2, 8-10			X	X	X		X	X	X			X	X			X	X	X	X	X	
	1-3, 78-80		X	X		X		X	X				X						X			
	1-5, 122-124			X	X	X		X	X				X				X		X		X	X
	1, CC		X	X		X		X	X		X								X			
267.5-277	2-1, 1-3	X	X	X		X		X	X		X	X	X	X		RR X	X	X	X			X
	2-1, 60-62	X	X	X				X	X			X		X		RR X			X			
	2-1, 73-74	X	X	X					X		X					X						
	2-1, 100			X					X							X						
	2-1, 108						X				X	X	X			X			X			
	2-1, 119-120	X		X					X				X	X		X		X	X			
	2-1, 125	X	X	X	X							X			X	X			X	X		X
	2-1, 130	Barren									Barren											

Sample (Interval in cm)	*Globorotalia* *acostaenis*	*aemiliana*	*bononiensis*	*crassaformis*	*crassaformis viola*	*inflata*	*margaritae evoluta*	*margaritae margaritae*	*margaritae primitiva*	*oscitans*	*puncticulata*	*scitula*	*truncatulinoides*
1-1, 130						X				X		X	
1-2, 8-10						X				X			
1-3, 78-80						X						X	RR X
1-5, 122-124						X				X		X	X
1, CC						X						X	
2-1, 1-3				X		X						X	
2-1, 60-62						X						X	
2-1, 73-74	X	X	X	X							X	X	
2-1, 100		RR X									X		
2-1, 108			X								RR X		
2-1, 119-120	X										X	X	
2-1, 125	X						X	X	X		X		
2-1, 130													

Sample (Interval in cm)	*Globigerinita glutinata*	*Globigerinita uvula*	*Globoquadrina altispira*	*Hastigerina pelagica*	*Hastigerina siphonifera*	*Orbulina universa*	*Sphaeroidinellopsis seminulina*	*Sphaeroidinellopsis subdehiscens*	Other Fossil Remains: Pteropods	Prodissoconchs	Ostracodes	Echinoid spines	Organic matter	Otoliths	Molluscan debris	Spores	Minerals: Detritus (quartz, mica)	Shards of volcanic glass	Zone	Age	Climatic Indic.
1-1, 130	X					RR X			X								X		Globorotalia truncatulinoides N22	Pleistocene	
1-2, 8-10	X	X			X	X						X	X			X					TW
1-3, 78-80	X								X								X	X			TC
1-5, 122-124	X			X	X	X			X	X	X				X			X			TW
1, CC	X					RR X			X									X			TC
2-1, 1-3	X	X			X	X						X						X	M-Pl6	Late Pliocene	
2-1, 60-62	X				X	X			X	X	X							X			
2-1, 73-74	X				X	X					X							X	M-Pl5		
2-1, 100	X	Indurated Sediment (laminated)																			
2-1, 108		Indurated Sediment (mottled)												X				X			
2-1, 119-120	X	X				X	X	X				X						X	M-Pl4		
2-1, 125	X		X		X	X												X	M-Pl3	E. Plio.	
2-1, 130																	dolomite		?		

TABLE 5
Occurrence Ranges of Plio-Pleistocene Planktonic Foraminifers at Site 374

Depth Below Bottom (m)	Sample (cm from top)	*Globigerina*										*Globigerinoides*												
		apertura	*bulbosa*	*bulloides*	*eggeri*	*falconensis*	*microstoma*	*pachyderma*	*quinqueloba*	*nepenthes*	*rubescens*	*bollii*	*conglobatus*	*elongatus*	*gomitulus*	*helicinus*	*obliquus obliquus*	*obliquus extremus*	*pyramidalis*	*quadrilobatus*	*ruber*	*sacculifer*	*tenellus*	*trilobus*
100.5-110	1-1, 140							X	X					X	X						X			
	1-2, 40		X	X				X	X						X									
	1, CC			X	X				X		X												X	
157.0-161.5	2-1, 50			X				X	X						X									
	2-2, 40		X						X															
	2-3, 40	Barren: Volcanogenic material																						
	2-3, 70			X				X	X					X							X			
	2-3, 123			X	X			X	X					X							X		X	
	2, CC			X	X	X		X	X						X						X			X
208-209	3-1, 87			X					X															
	3-1, 103			X	X																			
	3-1, 127								X												X			
	3-1, 142	No planktonic foraminifers																						
	3, CC			X	X			X	X											X	X			
251.5-256.5	4-2, 57			X	X			X	X					X		X			X		X			
	4-2, 75					X		X	X												X			
	4-3, 20	Practically no sediment fraction >63 µm																						
	4, CC			X	X			X	X				X	X						X	X	X	X	X
297-304	5-2, 40		X	X					X				X											
	5-2, 64		X		X		X		X				X	X	X			X		X	X	X		X
	5-2, 79			X	X	X			X				X	X				X	X		X	X		
	5-3, 10								X						X			X						X
	5-3, 47			X		X			X					X		X		X			X			
	5-3, 50	Sparse small planktonic foraminifers embedded in black organic matter																						
	5-3, 54	X		X		X			X					X				X			X			
	5-3, 60			X		X			X					X							X			
	5-3, 67					X	X			X				X	X			X			X			
	5-3, 120			X	X	X			X				X	X				X	X					
	5-4, 50	X		X		X			X					X		X		X			X			
	5-5, 40	X	X	X		X	X		X					X	X			X			X			
	5, CC	X		X		X			X					X	X	X		X			X			
330.5-340	6-0, 40	X		X		X			X					X				X			X			
	6-1, 7	X		X		X	X		X				X	X		X		X	X		X			
	6-2, 19		X	X		X									X						X			
	6-2, 35			X					X					X				X	X		X			
	6-2, 42		X											X										
	6-2, 98			X		X			X					X						X	X	X		X
	6-3, 40	X	X	X		X			X					X	X			X			X			
	6-3, 65					X														X	X			X
	6-3, 125			X		X								X				X						
	6-4, 70	X		X		X			X					X	X	X		X		X	X			
	6-5, 90	X		X		X	X		X					X	X			X				X		X
	6-5, 110	X	X	X					X						X			X						X
	6-5, 112	X		X					X					X				X		X	X	X		X
	6-6, 70	X	X	X		X	X		X						X	X		X		X	X	X		X
	6, CC	X		X		X			X					X	X			X		X	X	X		X
340-349.5	7-1, 40	X	X	X		X			X					X				X		X		X		X
	7-1, 100	X	X	X		X			X					X				X		X		X		X
	7-2, 50		X	X		X			X				X					X		X				
	7-2, 120		X	X		X	X		X					X	X			X	X	X	X	X		X
	7-3, 30		X	X		X			X						X			X			X			X
	7-4, 40	X		X		X	X		X					X	X			X			X			
	7-4, 120	X		X			X		X							X		X		X	X			
	7-5, 30	X	X	X					X					X	X		X	X	X		X			
	7-5, 60			X		X	X		X					X				X			X			
	7-6, 80	X		X			X		X					X				X			X	X		
	7, CC													X		X		X				X		X
349.5-359	8-1, 127	X	X	X		X	X		X													X		X
	8-2, 111	X		X		X	X		X					X				X						X
	8-3, 39						X														X			
	8-3, 70	X					X		X			X		X				X			X			
	8-4, 30	X	X	X		X	X		X			X					X	X						

Sample (cm from top)	*Globorotalia*																											
	acostaensis	*aemiliana*	*benoniensis*	*crassaformis*	*inflata*	*margaritae evoluta*	*margaritae margaritae*	*margaritae primitiva*	*obesa*	*oscitans*	*pseudopachyderma*	*puncticulata*	*puncticulata padana*	*scitula*	*tosaensis*	*truncatulinoides*	*Globigerinita glutinata*	*Globigerinita uvula*	*Globoquadrina altispira*	*Hastigerina pelagica*	*Hastigerina siphonifera*	*Orbulina bilobata*	*Orbulina suturalis*	*Orbulina universa*	*Sphaeroidinella dehiscens*	*Sphaeroidinella ionica*	*Sphaeroidinellopsis seminulina*	*Sphaeroidinellopsis subdehiscens*
1-1, 140					X					X				X			X	X						X				
1-2, 40									X	X				X			X											
1, CC										X				X		X	X							X				
2-1, 50					X					X				X			X											
2-2, 40																	X											
2-3, 40																												
2-3, 70					X									X			X											
2-3, 123					X									X			X	X			X			X				
2, CC					X					X				X		X	X	X			X			X				
3-1, 87										X				X			X	X										
3-1, 103																		X						X				
3-1, 127																	X											
3-1, 142																												
3, CC					X					X				X		X	X				X			X				
4-2, 57					X					X				X		X	X							X				
4-2, 75					X									X		X	X											
4-3, 20																												
4, CC					X					X				X		X	X	X				X		X				
5-2, 40														X			X							X				
5-2, 64				X										X	X	X	X			X				X	X	X		
5-2, 79														X			X				X			X				
5-3, 10																	X											
5-3, 47		X		X										X			X							X				
5-3, 50																						X						
5-3, 54		X		X										X			X				X			X				
5-3, 60														X			X							X				
5-3, 67														X			X							X				
5-3, 120											X			X			X							X				
5-4, 50	X										X							X			X			X				
5-5, 40											X						X							X				
5, CC		X										X		X										X				
6-0, 40												X	X				X				X			X				
6-1, 7			X										X				X				X			X				
6-2, 19													X				X											
6-2, 35		X		X										X			X				X			X				
6-2, 42				X										X			X											
6-2, 98											X		X				X				X			X				
6-3, 40		X		X							X		X	X			X							X				
6-3, 65				X													X							X				
6-3, 125												X					X							X				
6-4, 70		X	X	X					X					X							X			X				
6-5, 90														X			X	X			X			X				
6-5, 110														X										X				
6-5, 112											X			X			X			X				X				
6-6, 70		X															X							X				
6, CC														X			X							X				
7-1, 40											X			X			X							X				
7-1, 100											X			X			X		X					X			X	X
7-2, 50											X	X					X		X					X			X	
7-2, 120												X					X							X			X	
7-3, 30												X					X										X	X
7-4, 40	X																X							X			X	X
7-4, 120											X	X					X							X		X	X	X
7-5, 30											X	X					X							X		X	X	X
7-5, 60											X	X					X							X				X
7-6, 80		X										X					X							X		X		X
7, CC						X	X					X							X			X		X		X	X	X
8-1, 127						X	X					X					X							X				
8-2, 111						X	X					X					X							X				X
8-3, 39								X				X					X							X				
8-3, 70						X	X		X			X		X			X							X			X	X
8-4, 30						X	X					X		X			X				X			X				

Sample (cm from top)	Other Fossil Remains												Minerals						
	Plant debris	Pteropods	Micrascidites of Tunicates	Holoturian Sclerites	Radiolaria	Siliceous sponge spicules	Fish teeth	Ostracodes	Echinoid spines	Organic matter	Prodissoconchs	Spores	Pyrite	Detritus (quartz, mica)	Gypsum	Glauconite	Volcanic Glass	Sapropels	Zone
1-1, 140	X	X	X	X		X		X	X	X	X		X	X					Pleistocene Zone N. 22
1-2, 40		X	X			X			X		X			X					
1, CC	X	X	X	X		X			X	X	X			X		X			
2-1, 50														X					
2-2, 40	X				X	X						X		X					
2-3, 40														X			X		
2-3, 70	X									X		X		X					
2-3, 123										X		X		X					
2, CC	X	X				X			X	X			X	X			X		
3-1, 87		X				X								X					
3-1, 103										X			X	X			X		
3-1, 127	X					X	X			X		X		X					
3-1, 142	X											X							
3, CC										X			X	X					
4-2, 57	X									X		X		X					
4-2, 75		X								X				X					
4-3, 20																			
4, CC	X									X			X	X					
5-2, 40	X									X		X		X					
5-2, 64							X							X					~?~
5-2, 79														X					Late Pliocene M-Pl 5
5-3, 10										X		X							
5-3, 47																			
5-3, 50										X		X							
5-3, 54										X			X	X					
5-3, 60										X			X	X					
5-3, 67	X												X	X					
5-3, 120	X													X					
5-4, 50	X													X					
5-5, 40																			
5, CC														X					
6-0, 40																			
6-1, 7														X					
6-2, 19							X			X		X							
6-2, 35					X									X					
6-2, 42										X		X		X					
6-2, 98	X									X		X		X					
6-3, 40																			
6-3, 65										X		X							
6-3, 125										X		X							
6-4, 70														X					
6-5, 90														X					
6-5, 110	X									X		X							
6-5, 112																			
6-6, 70									X					X					
6, CC												X		X					
7-1, 40	X													X					Late Pliocene M-Pl 4
7-1, 100														X					
7-2, 50	X													X					
7-2, 120	X								X					X					
7-3, 30	X									X				X					
7-4, 40	X													X					
7-4, 120	X													X					
7-5, 30														X					
7-5, 60	X													X					
7-6, 80	X													X					
7, CC														X					
8-1, 127	X																		Early Pliocene M-Pl 3
8-2, 111									X	X				X					
8-3, 39	X						X			X		X		X					
8-3, 70										X				X					
8-4, 30										X									

TABLE 5 – *Continued*

Depth Below Bottom (m)	Sample (cm from top)	*Globigerina*										*Globigerinoides*												
		apertura	*bulbosa*	*bulloides*	*eggeri*	*falconensis*	*microstoma*	*pachyderma*	*quinqueloba*	*nepenthes*	*rubescens*	*bollii*	*conglobatus*	*elongatus*	*gomitulus*	*helicinus*	*obliquus obliquus*	*obliquus extremus*	*pyramidalis*	*quadrilobatus*	*ruber*	*sacculifer*	*tenellus*	*trilobus*
	8-4, 94		X	X		X	X		X									X						X
	8, CC			X		X			X	X				X	X			X			X			X
359-368.5	9-1, 33	X		X					X							X		X			X			X
	9-1, 95			X		X	X											X						
	9-2, 2		X	X														X						X
	9-2, 22					Practically no foraminifers																		
	9-2, 92	X	X	X		X	X											X						X
	9-3, 14			X		X			X															X
	9-3, 30		X	X		X	X		X									X						X
	9-3, 90	X		X			X											X		X	X			X
	9-4, 50	X	X				X											X			X			X
	9, CC		X	X		X	X											X						X
368.5-378	10, CC			X			X									X		X						
	10, CC bic.			X			X									X		X			Mixed assemblage			
371	26-1, 4		X	X		X	X		X									X						
	26-1, 12		X	X		X												X						X
	26-1, 25.5		X	X		X			X									X						
	26-1, 28			X														X						X
375	25-1, 4					Barren: dolomite + gypsum																		
	25-1, 23																							
	25-1, 36					Important biomass of planktonic foraminifers																		
378-381.5	11-1, 86					Recrystallized and/or destructed by diagenesis																		
	11-2-76			cf.																				
	11, CC																							

Sample (cm from top)	*Globorotalia*																											
	acostaensis	*aemiliana*	*benoniensis*	*crassaformis*	*inflata*	*margaritae evoluta*	*margaritae margaritae*	*margaritae primitiva*	*obesa*	*oscitans*	*pseudopachy derma*	*puncticulata*	*puncticulata padana*	*scitula*	*tosaensis*	*truncatulinoides*	*Globigerinita glutinata*	*Globigerinita uvula*	*Globoquadrina altispira*	*Hastigerina pelagica*	*Hastigerina siphonifera*	*Orbulina bilobata*	*Orbulina suturalis*	*Orbulina universa*	*Sphaeroidinella dehiscens*	*Sphaeroidinella ionica*	*Sphaeroidinellopsis seminulina*	*Sphaeroidinellopsis subdehiscens*
8-4, 94												X		X														
8, CC	X					X	X				X	X					X											
9-1, 33							X	X	X			X					X							X				X
9-1, 95	X					X	X		X			X					X							X			X	X
9-2, 2							X										X											
9-2, 22																								X				
9-2, 92						X	X															X		X				X
9-3, 14							X										X							X				
9-3, 30	X					X	X										X							X				
9-3, 90	X						X				X						X							X				
9-4, 50							X		X															X				
9, CC							X	X									X							X				
10, CC								X			X													X			X	X
10, CC bic.											X																X	X
26-1, 4							X	X																X			X	X
26-1, 12							X	X									X											
26-1, 25.5							X	X									X						X	X			X	
26-1, 28							X	X									X							X				
25-1, 4																												
25-1, 23																												
25-1, 36	Rare foraminifers possibly contaminants																											
11-1, 86																												
11-2-76																												
11, CC																												

Sample (cm from top)	Other Fossil Remains														Minerals					
	Plant debris	Pteropods	Micrascidites of Tunicates	Holoturian Sclerites	Radiolaria	Siliceous sponge spicules	Microserpolids	Fish teeth	Ostracodes	Echinoid spines	Organic matter	Prodissoconchs	Spores	Pyrite	Detritus (quartz, mica)	Gypsum	Glauconite	Volcanic Glass	Sapropels	Zone
8-4, 94	X										X									Early Pliocene M-Pl 3
8, CC	X														X					
9-1, 33								X							X					
9-1, 95											X				X					
9-2, 2	X										X		X						(hatched)	
9-2, 22															X					
9-2, 92										X	X				X					Early Pliocene M-Pl 2
9-3, 14								X			X		X		X				(hatched)	
9-3, 30															X					
9-3, 90										X					X					
9-4, 50										X	X				X					
9, CC										X					X					
10, CC										X										
10, CC bic.								X		X			X							
26-1, 4										X					X					
26-1, 12															X					
26-1, 25.5										X					X					
26-1, 28															X					- - ? - -
25-1, 4																				Early Pliocene M-Pl 1 (?)
25-1, 23																				
25-1, 36											X		X							
11-1, 86																				
11-2-76																				
11, CC																				

Note: Cores 25 and 26 were sidewall cores, pulled after raising the drillstring to a depth of 371 meters.

TABLE 6
Occurrence Ranges of Plio-Pleistocene Planktonic Foraminifers and Other Fossils at Site 376

Depth Below Bottom (m)	Sample	*Globigerina*											*Globigerinoides*												*Globorotalia*																						
		apertura	*bulbosa*	*bulloides*	*digitata-praedigitata*	*eggeri*	*falconensis*	*microstoma*	*nepenthes*	*pachyderma*	*quinqueloba*	*radians*	*rubescens*	*conglobatus*	*elongatus*	cf. *fistulosus*	*gomitulus*	*helicinus*	*obliquus obliquus*	*obliquus extremus*	*pyramidalis*	*quadrilobatus*	*ruber*	*sacculifer*	*tenellus*	*trilobus*	*acostaensis*	*aemiliana*	*bononiensis*	*inflata*	*margaritae evoluta*	*margaritae margaritae*	*margaritae primitiva*	*puncticulata padana*	*oscitans*	*pseudo pacyderma*	*punticulata*	*scitula*	*truncatulinoides*	*Globigerinita glutinata*	*Globigerinita uvula*	*Globoquadrina altispira*	*Hastigerina pelagica*	*Hastigerina siphonifera*	*Orbulina bilobata*	*Orbulina universa*	*Sphaeroidinella ionica*	*Sphaeroidinellopsis seminulina*
	1-1, 63			X	X					X			X				X						X	X	X					X					X				X				X	X		X		
	1-1, 77				X						X	X	X										X	X	X														X				X	X		X		
	1-2, 80		X	X	X					X	X		X				X	X					X		X					X									X	X	X				X		X		
	1-2, 116		X	X	X	X				X		X			X						X									X									X	X	X				X	X	X		
	1-3, 31			X	X					X			X									X	X		X																				X		X		
	1-3, 70			X						X	X						X	X			X		X															X		X						X			
	1-3, 143			X	X	X				X	X				X								X							X					X			X		X					X		X		
0-7.5	1-4, 3			X		X				X	X	X	X		X								X							X					X			X		X					X		X		
	1-4, 11			X		X					X	X										X	X							X					X			X	X						X		X		
	1-4, 68			X		X																X	X															X							X		X		
	1-4, 76			X	X	X	X				X											X	X		X	X												X							X		X		
	1-4, 86		X	X	X						X		X										X															X		X					X		X		
	1-4, 110			X						X	X			X									X							X					X			X		X					X		X		
	1-5, 140		X	X		X				X	X							X												X					X			X		X					X		X		
	1, CC				X	X				X	X		X				X				X		X	X		Tephra				X				layer				X		X					X		X		
	2-1, 100			X		X	X			X	X						X				X									X					X			X		X							X		
	2-1, 147			X		X				X	X	X																											X		X	X					X		
	2-2, 5			X		X					X												Globigerina eggeri/bulloides assemblage (typical)																X		X	X				X	X		
	2-2, 26			X		X				X	X	X											G. eggeri/bulloides assemblage (typical)																X		X						X		
	2-2, 43					X					X	X		G. eggeri/bulloides assemblage									X	X	X	X					(modified)							X	X	X				X				
	2-2, 70			X		X				X	X				X								X							X								X	X								X		
7.5-17	2-3, 0			X	X	X					X			G. eggeri/bulloides assemblage								X	X	X	X	(modified)				X								X	X	X				X	X			
	2-3, 11			X	X	X					X			G. eggeri/		X			X	bulloides		X	X	X		assemblage				X				(modified)					X					X		X		
	2-3, 50			X	X	X				X	X	X			X		X					X	X	X			X			X								X	X	X				X		X		
	2-3, 114			X	X					X	X											X	X	X						X					X			X		X				X		X		
	2-3, 143			X		X				X		X					X			G. eggeri/G. bulloides assemblage										X				(typical)				X									X		
	2-4, 30			X		X				X										G. eggeri/G. bulloides assemblage (typical)																				X	X						X		
	2-4, 40			X	X					X	X				X				X	X			X							X					X			X	X	X							X		
	2, CC			X	X	X				X	X		X										X							X					X			X		X					X		X		
	3-2, 38			X						X	X												X		X					X										X					X		X		
	3-2, 100			X		X					X	X			X						X		X							X					X			X		X	X				X		X		
17-26.5	3-3, 40			X		X				X	X	X																		X					X			X		X					X		X		
	3-4, 18			X							X	X					X				X		X							X					X	X		X		X					X		X		
	3-5, 80			X						X	X							X					X							X					X			X	X	X							X		
	3, CC				X	X				X	X				X								X							X					X			X	X	X			X	X			X		
	4-1, 70			X	X						X						X	X					X							X					X			X	X	X				X		X		
26.5-30	4-2, 100										X				X			X				X	X	X						X					X			X	X	X	X			X		X		
	4, CC			X							X												X	X						X					X			X	X	X				X		X		
	5-1, 130			X		X	X			X	X			X	X							X	X			X				X					X			X	X	X	X	X		X		X		
	5-2, 60			X	X									X	X							X	X	X		X				X					X			X		X				X		X		
	5-2, 115			X							X																			X								X		X				X		X		
	5-2, 128			X							X			X			X		X	X			X	X						X							X			X				X		X		
	5-3, 115	X		X											X	X	X					X	X	X		X								X			X		X				X	X	X		
	5-4, 50	X		X			X				X				X				X	X		X	X	X		X			X					X			X	X	X	X			X		X		
	5-4, 54														X	X			X	X		X	X	X		X		X	X									X						X		X		
	5-4, 64	X		X							X				X								X	X				X	X														X		X	X		
	5-4, 96			X			X	X			X			X	X				X	X		X		X		X		X	X																X		X		
36-45.5	5-4, 105	X		X																X		X	X	X		X			X					X			X							X		X		
	5-5, 5	X	X	X							X									X		X	X	X		X										X			X					X		X		X
	5-5, 36			X		X					X				X	X				X		X		X		X										X		X		X		X		X		X		X
	5-5, 62		X	X			X				X									X		X	X	X		X												X		X				X		X		X
	5-5, 108	X	X	X			X	X	X										X	X				X							X	X							X		X			X	X	X		
	5-5, 110										X									X		X				X					X	X	X				X	X	X					X		X		
	5-5, 119			X					X											X												X					X							X		X		X
	5-5, 120						X	X	X										X	X		X				X	X				X	X					X	X						X	X	X		X
	5-5, 125			X																X				X		X						X	X					X						X	X	X		
	5-5, 133		X	X			X													X												X	X					X			X			X	X	X		
	5, CC			X			X		X		X									X		X		X							X	X						X						X	X	X		
	6-2, 50			X		X					X			X								X								X								X	X				X		X		
	6-3, 95						X																						Practically barren																			
	6-3, 106		X	X			X		X										X	X		X				X												X		X				X	X	X		
	6-3, 110			X			X				X							X		X		X		X		X	X													X				X	X	X		X
	6-3, 130																			X		X		X		X															X				X	X		X
	6-3, 140		X	X			X	X	X											X		X				X												X		X	X		X	X	X	X		
45.5-55	6-4, 36			X			X		X		X									X				X		X	X											X						X	X	X		X
	6-4, 64		X	X					X		X								X	X		X					X													X				X	X	X		
	6-4, 80		X	X			X		X		X			X	X				X	X																				X				X	X	X		X
	6-4, 90	X		X				X	X		X								X	X																				X				X	X	X	X	X
	6-4, 101		X	X					X										X	X		X		X			X																	X	X	X		
	6-4, 117			X															X	X		X		X		X	X		Admixture of pelagic ooze + Cyprideis/Ammonia															X	X	X		X
	6-4, 135		X				X													X		X		X		X												X		X				X	X	X		X
	6, CC		X	X			X	X			X									X		X		X			X											X		X				X		X	X	X

[a]Probable artificial repetition.

TABLE 6 – *Continued*

Depth Below Bottom (m)	Sample	*Sphaeroidinellopsis subdehiscens*	Other Fossil Remains: Holoturian Scierites	Sponge spicules	Prodissoconchs	Pteropods	Plant debris	Fish teeth	Spores	Ostracodes	Echinoid spines	Organic matter	Otoliths	Radiolaria	Minerals: Volcanic glass	Pyrite	Detritus (quartz, mica)	Gypsum	Glauconite	Sapropels and omission surfaces	Age	Zone
	1-1, 63				X	X				X	X	X	X		X		X				Pleistocene	N22
	1-1, 77				X	X	X					X										
	1-2, 80				X	X									X							
	1-2, 116				X	X						X										
	1-3, 31				X	X						X										
	1-3, 70				X					X	X						X					
	1-3, 143				X	X			X		X	X										
0-7.5	1-4, 3				X	X						X					X					
	1-4, 11		X	X	X	X					X	X										
	1-4, 68			X					X			X		X								
	1-4, 76			X	X	X						X										
	1-4, 86			X		X				X	X	X					X		X			
	1-4, 110					X				X				X	X	X	X					
	1-5, 140				X	X				X	X				X		X					
	1, CC					X				X	X				X		X					
	2-1, 100				X	X				X	X	X	X		X		X					
	2-1, 147				X	X						X			X	X	X					
	2-2, 5				X	X					X	X			X							
	2-2, 26					X			X			X			X		X					
	2-2, 43											X										
	2-2, 70				X	X				X					X		X					
7.5-17	2-3, 0					X			X		X	X			X	X	X					
	2-3, 11					X					X	X			X							
	2-3, 50				X	X			X	X	X	X			X	X	X					
	2-3, 114				X	X						X										
	2-3, 143										X	X										
	2-4, 30				X	X						X				X	X					
	2-4, 40					X				X	X		X									
	2, CC				X		X				X		X		X		X					
	3-2, 38				X	X					X											
	3-2, 100									X	X	X										
17-26.5	3-3, 40		X		X						X											
	3-4, 18		X		X	X				X	X						X					
	3-5, 80				X					X	X						X					
	3, CC						X			X	X	X					X					
	4-1, 70									X	X						X					
26.5-30	4-2, 100						X			X	X	X	X				X					
	4, CC					X	X			X	X	X	X				X					
	5-1, 130			X			X			X		X				X					Late Pliocene	M-Pl 5
	5-2, 60									X	X					X	X					
	5-2, 115						X		X			X										
	5-2, 128				X					X	X	X					X					
	5-3, 115																					
	5-4, 50										X	X					X					
	5-4, 54										X	X										
	5-4, 64									X	X	X										
	5-4, 96								X		X						X					
36-45.5	5-4, 105								X			X										
	5-5, 5									X	X						X					
	5-5, 36	X																				
	5-5, 62									X	X	X									Early Pliocene	M-Pl 3
	5-5, 108						X		X	X	X	X					X					
	5-5, 110										X						X					
	5-5, 119	X					X			X	X	X					X					
	5-5, 120	X																				M-Pl 2
	5-5, 125																					
	5-5, 133							X			X	X										
	5, CC										X						X					
	6-2, 50					X				X	X						X		X		Pleist.	
	6-3, 95						X				X	X						X				
	6-3, 106									X	X	X					X					
	6-3, 110	X									X	X					X					
	6-3, 130	X																				
	6-3, 140									X	X	X					X				Early Pliocene	M-Pl 1
45.5-55	6-4, 36	X									X						X					
	6-4, 64											X					X			Mystery		
	6-4, 80	X										X				X	X					
	6-4, 90	X						X	X			X										
	6-4, 101						X					X					X					
	6-4, 117			assemblage					X								X	X			Messinian	
	6-4, 135	X																				
	6, CC	X							X			X									Basal Plio-cene	M-Pl 1[a]

[a]Probable artificial repetition.

TABLE 7
Occurrence Ranges of Planktonic Foraminifers at Site 375

Depth Below Bottom (m)	Sample (cm from top)	*Globigerina*									*Globigerinoides*								*Globorotalia*									*Globoquadrina*													Comments	Zone: Blow, 1969	Zone: Bizon and Bizon, 1972	Age
		angusti umbilicata	*bollii*	*druryi*	*falconensis*	*foliata*	*praebulloides*	*quinqueloba*	*woodi*	aff. *ciperoensis*	*altiapertura*	*bisphericus*	*irregularis*	*obliquus*	*quadrilobatus*	*subquadratus*	*subsacculifer*	*trilobus*	*continuosa*	*mayeri*	cf. *minutissima*	*miozea*	*obesa*	*peripheroronda*	*praescitula*	*scitula*	*siakensis*	*altispira altispira*	*altispira globosa*	*dehiscens advena*	*dehiscens dehiscens*	*langhiana*	*Globigerinita glutinata*	*Globorotaloides*	*Hastigerina praesiphonifera*	*Orbulina bilobata*	*Orbulina suturalis*	*Orbulina universa*	*Praeorbulina glomerosa*	*Praeorbulina transitoria*				
622-631.5	8-1, 70	X		X	X	X	X							X	X			X			X					X							X					X				N13	*Globorotalia mayeri*	Serravallian
	8-2, 140			X			X		X					X	X		X	X	X		X					X				X			X			X	X							
	8-3, 100		X	X	X	X	X							X	X		X	X			X					X							X			X	X	X						
	8-4, 40			X	X	X	X		X			X		X							X		X			X						cf	X	X		X	X	X		X				
	8-5, 84			X	X		X						X	X	X		X	X								X		X		X	X					X	X	X						
	8-5, 148	X		X		X																				X							X					X						
	8, CC	X		X	X	X										X				X								X	X	X	X		X					X						
650.5-660	9-1, 94				X		X							X	X		X	X											X													N10-N12	*Globorotalia mayeri* / *G. peripheroronda*/ *O. suturalis*	Serravallian
	9-1, 119	X			X		X										X	X		X	X		X				X								X		X	X			Pelagic turbidite			
	9-2, 80				X		X								X		X	X		X			X						X	X	X							X						
	9-3, 20				X		X								X	X	X	X	X	X			X				X			X	X						X			X	Pelagic turbidite			
	9-4, 4	X		X	X		X	cf						X	X	X		X	X		X				X		X	X		X	X		X		X		X	X	X	X	Pelagic turbidite			
	9-5, 70	X			X		X			X					X		X	X	X	X	X		X		X		X						X	X	X		X	X		X				
	9-6, 113	X					X			X				X			X	X	X	X				X		X	X	X	X	X			X				X							
	9, CC	X		X			X			X										X						X		X			X		X				X	X			Some contamination			
675.5-679	10-2, 62	X															X	X					X					X		X	X				X		X		X	X	Pelagic turbidite	N9	*G. peripheroronda*/ *O. suturalis*	Langhian
	10-3, 30						X								X			X		X									X	X	X					X	X		X	X				
	10-3, 102						X					X					X	X		X					X			X	X	X			X		X									
	10, CC	X	X	X						X		X			X	X	X	X					X		X			X				X			X				X	X	Pelagic turbidite	N8	*Praeorbulina glomerosa*	
733-736	11-1, 106	cf			cf	X	X					X			X	X	X	X					X		X			X		X			X						X	X				
	11-2, 50											X				X		X												X									X	X				
	11, CC	X			X	X	X			X		X						X					X		X			X		X	X		X		X				X					
792-793	12, CC										X							X		X													X		X					X		N6-N7?	Not zoned	Burdigal
819.5-821.5	13,120																	X		X																								
	13, CC						cf											cf																										

TABLE 8
Occurrence Ranges of Planktonic Foraminifers at Site 377 (cleft in Mediterranean Ridge)

Depth Below Bottom (m)	Sample (Interval in cm)	*Globigerina*					*Globigerinoides*										*Globorotalia*									Other Fossil Remains							Minerals			Sapropels	Zone	Age
		bulbosa	*bulloides*	*eggeri*	*pachyderma*	*quinqueloba*	*conglobatus*	*elongatus*	*gomitulus*	*helicinus*	*pyramidalis*	*quadrilobatus*	*ruber*	*sacculifer*	*tenellus*	*trilobus*	*inflata*	*obesa*	*oscitans*	*scitula*	*Globigerinita glutinata*	*Globigerinita uvula*	*Hastigerina siphonifera*	*Orbulina universa*	Pteropods	Ostracodes	Echinoid spines	Organic matter	Otoliths	Molluscan debris	Spores	Pyrite	Detritus (quartz, mica)	Shards of volcanic glass			
190.5-193.5	1-1, 140-141		X	X	X	X		X	X		X	X	X	X			X		X	X	X		X	X			X	X				X				N22	Quaternary
	1-2, 13-14		X	X	X	X							X				X		X	X	X	X					X										
	1-2, 30-31		X	X		X	X						X				X	X	X		X			X				X			X	X	X				
	1-2, 103-104	X	X	X	X	X			X	X	X	X	X			X	X		X	X	X		X	X	X		X			X							
	1, CC (clayey)		X	X	X	X			X				X			X	X		X	X			X	X	X		X	X									
	1, CC, sandstone		X	X	X	X			X				X		X		X		X	X	X		X	X	X	X	X	X					X	X			
	1, CC, hard marl		X (cf.)																					X							X						Middle ? Miocene
249.5-250.5	2, CC						BARREN																														
257-260	3-2, 125-127						Downhole contaminants																									X	X				

TABLE 9
Occurrence Ranges of Plio-Pleistocene Planktonic Foraminifers and Other Fossils at Hole 378

Depth Below Bottom (m)	Sample (cm from top)	*Globigerina*									*Globigerinoides*												
		apertura	*bulbosa*	*bulloides*	*falconensis*	*microstoma*	*nepenthes*	*pachyderma*	*quinqueloba*	*rubescens*	*bollii*	*conglobatus*	*elongatus*	*gomitulus*	*helicinus*	*obliquus obliquus*	*obliquus extremus*	*pyramidalis*	*quadrilobatus*	*ruber*	*sacculifer*	*tenellus*	*trilobus*
84-93.5	1-1, 133		X	X				X	X				X						X	X			X
	1-2, 69																	X		X			
	1-2, 80							X	X				X							X			X
	1, CC			X	X			X	X	X			X									X	
93.5-103	2-2, 15-17		X	X					X				X	X					X	X			
	2-3, 15		X	X	X			X				X	X	X	X		X			X			
	2-4, 10			X				X	X				X	X	X			X		X			
	2-5, 60			X				X	X				X	X					X	X			
	2, CC			X				X	X	X		X	X	X						X			
103-112.5	3-1, 82		X	X				X	X				X	X			X			X	X		
	3-2, 10		X	X	X			X	X	X		X	X	X						X			
	3-3, 70			X	X			X	X			X	X	X			X			X			
	3-3, 122			X				X	X														
	3, CC			X				X	X			X	X										
112.5-122	5-1, 100		X	X		X		X	X				X	X						X			
	5-2, 130	X	X	X	X	X		X	X				X		X		X		X	X	X	X	
	5, CC		X	X				X	X				X							X			
141-150.5	6-2, 18		X	X					X											X			
	6-2, 100	X	X	X	X	X		X	X				X	X			X			X		X	
	6-3, 70	X		X	X							X	X	X			X	X		X		X	
	6-3, 84			X					X								X			X			
	6-3, 95								X											X			
	6, CC	X	X	X		X			X				X	X									
169.5-179	7-1, 70	X	X	X	X				X				X	X			X			X			
	7-2, 110	X	X	X	X	X			X				X	X	X		X			X	X		
	7-3, 67	X		X	X			X	X				X	X			X						
	7-4, 30		X	X	X				X					X	X		X			X			
	7-4, 71	X	X	X				cf	X											X			
	7-5, 60	X	X	X	X				X				X	X			X	X		X			X
	7, CC	X	X	X	X	X			X				X				X						
217-226.5	8-1, 70		X	X	X	X			X				X				X		X	X	X		X
	8-1, 124	X	X	X					X					X									
	8-2, 45			X																	X		
	8-2, 75		X	X	X	X			X				X	X	X		X	X		X			X
	8, CC		X	X		X			X				X				X			X			
274-283.5	9, CC	X	X	X	X	X			X					X			X						X
283.5-292	10, CC	X							X							X	X		X	X			X
302.5-312	11-1, 149	X	X	X					X					X			X			X	X		X
	11-2, 1	X		X					X					X		X	X		X		X		
	11-2, 28	X	X	X	X															X	X		X
	11-2, 40	X		X													X		X		X		X
	11-2, 60	X	X	X	X	X										X	X		X	X	X		X
	11-2, 98	X		X	X		X		X					X	X	X	X		X	X	X		X
	11-2, 136	X		X	X	X			X					X		X	X			X	X		X
	11-3, 100	X	X	X	X	X	cf										X		X		X		X
	11-4, 9	X	X	X		X	X		X							X					X		
	11-4, 22	X	X	X	X				X							X							
	11-4, 37	X		X	X				X														
	11-4, 46	X	X	X					X								X						X
	11-4, 64			X	X		cf		X														X
	11-4, 90	X	X	X	X	X	cf		X							X	X			X			
	11-4, 130		X	X	X		cf		X							X	X			X			
	11, CC	X														X	X						

Sample (cm from top)	*Globorotalia*																													
	acostaensis	*aemiliana*	*bononiensis*	*crassaformis*	*crassaformis viola*	*eggeri*	*inflata*	*margaritae evoluta*	*margaritae margaritae*	*margaritae primitiva*	*oscitans*	*obesa*	*pseudopachyderma*	*puncticulata*	*puncticulata padana*	*scitula*	*truncatulinoides*	*Globigerinita glutinata*	*Globigerinita uvula*	*Globoquadrina altispira*	*Globoquadrina larmeui*	*Hastigerina pelagica*	*Hastigerina siphonifera*	*Orbulina bilobata*	*Orbulina suturalis*	*Orbulina universa*	*Sphaeroidinella dehiscens*	*Sphaeroidinella ionica*	*Sphaeroidinellopsis seminulina*	*Sphaeroidinellopsis subdehiscens*
1-1, 133							X				X					X		X	X				X			X				
1-2, 69						X	X				X					X		X	X				X			X				
1-2, 80				X		X	X				X					X		X												
1, CC							X				X					X		X					X			X				
2-2, 15-17							X									X		X					X			X				
2-3, 15							X				X					X										X				
2-4, 10						X	X				X					X		X					X			X				
2-5, 60						X	X				X					X		X					X			X				
2, CC							X									X		X					X			X				
3-1, 82							X				X					X		X					X			X				
3-2, 10						X	X				X					X		X					X			X				
3-3, 70							X				X					X		X					X			X				
3-3, 122						X	X				X	X				X		X	X				X							
3, CC							X									X		X	X				X			X				
5-1, 100							X				X	X				X		X					X			X				
5-2, 130							X				X	X						X								X				
5, CC																X		X								X				
6-2, 18						X										X		X								X				
6-2, 100																X		X	X				X			X				
6-3, 70															X			X						X		X				
6-3, 84						X						X						X	X				X			X				
6-3, 95						X										X		X	X				X			X				
6, CC		X		X												X		X	X				X			X				
7-1, 70																		X					X			X				
7-2, 110												X			X	X		X					X			X				
7-3, 67	X														X			X					X	X		X				
7-4, 30	X		X	X	X							X				X							X			X				
7-4, 71															X			X	X							X				
7-5, 60	X	X		X	X							X			X			X					X							
7, CC				X														X	X				X			X				
8-1, 70				X	X									cf				X	X				X			X				
8-1, 124			X											cf																
8-2, 45			X									cf		X				X	X											
8-2, 75				X	X													X					X			X				
8, CC																		X	X				X			X				
9, CC														X				X								X			X	X
10, CC								X	X					X					X	X						X			X	X
11-1, 149	X								X			X	X	X	X			X		X						X				
11-2, 1														X															X	X
11-2, 28	X					cf						X		X	X					X			X	X		X				X
11-2, 40									X					X									X			X			X	X
11-2, 60								X	X	X				X						X			X			X				
11-2, 98								X	X				X	X	X			X					X			X				
11-2, 136								X						X	X			X					X			X				
11-3, 100	X							X	X					X	X									X	X	X				
11-4, 9									X						X			X	X							X				
11-4, 22																		X								X				
11-4, 37																X		X												
11-4, 46									X			X						X												
11-4, 64									X			X						X								X				
11-4, 90									X	X						X		X								X				
11-4, 130									X									X						X	X	X				
11, CC									X									X								X				

Sample (cm from top)	Other Fossil Remains													Minerals							Sapropels	Zone	Age
	Holoturian sclerites	Plant debris	Fish teeth	Prodissoconchs	Ostracodes	Echinoid spines	Organic matter	Siliceous sponge spicules	Molluscan debris	Spores	Otoliths	Radiolaria	Diatoms	Volcanic glass	Iron oxides	Pyrite	Detritus (mica, quartz)	Gypsum	Glauconite	Dolomite			
1-1, 133						X	X			X							X					N22	Pleistocene
1-2, 69						X	X										X				////		
1-2, 80				X	X	X									X								
1, CC		X	X		X	X	X							X		X	X						
2-2, 15-17					X	X											X						
2-3, 15					X	X										X							
2-4, 10					X												X						
2-5, 60					X																		
2, CC					X	X			X							X	X						
3-1, 82						X	X		X							X	X						
3-2, 10					X	X																	
3-3, 70					X										X								
3-3, 122	X	X				X	X	X									X				////		
3, CC		X			X	X		X	X		X					X	X						
5-1, 100		X				X	X	X							X	X							
5-2, 130						X		X									X						
5, CC						X		X						X								?	
6-2, 18		X				X	X			X					X		X				////	M-Pl 5	Late Pliocene
6-2, 100					X	X				X							X						
6-3, 70						X	X										X						
6-3, 84							X			X											////		
6-3, 95							X										X				////		
6, CC					X	X	X									X	X		X				
7-1, 70							X										X						
7-2, 110	X				X	X										X	X						
7-3, 67					X	X											X						
7-4, 30			X														X						
7-4, 71						X	X	X		X				X			X				////		
7-5, 60								X						X			X						
7, CC					X	X		X						X		X	X						
8-1, 70								X				X	X			X	X						
8-1, 124							X	X				X	X				X				////		
8-2, 45		X					X			X											////		
8-2, 75														X		X	X						
8, CC								X						X		X			X				
9, CC					X		X	X			X					X						M-Pl 4	
10, CC						X	X									X						M-Pl 3	Early Pliocene
11-1, 149														X				X			////		
11-2, 1			X		X	X	X									X		X	X	X			
11-2, 28						X											X				////		
11-2, 40			X		X	X	X																
11-2, 60																							
11-2, 98							X							X?							////		
11-2, 136							X							X?			X				////		
11-3, 100					X																		
11-4, 9			X				X										X				////	M-Pl 2	
11-4, 22						X											X				////		
11-4, 37			X			X								X?							////		
11-4, 46						X															////		
11-4, 64					X	X	X			X				X?							////		
11-4, 90		X			X	X	X			X							X						
11-4, 130			X			X	X			X							X				////		
11, CC						X	X										X	X	X	X			

Miocene

TABLE 10
Occurrence Ranges of Planktonic Foraminifers and Other Fossil Remains at Hole 378A

Depth Below Bottom (m)	Sample (cm from top)	*Globigerina* *apertura*	*bulbosa*	*bulloides*	*falconensis*	*microstoma*	*nepenthes*	*pachyderma*	*quinqueloba*	*rubescens*	*Globigerinoides* *elongatus*	*gomitulus*	*helicinus*	*obliquus obliquus*	*obliquus extremus*	*quadrilobatus*	*ruber*	*sacculifer*	*tenellus*	*trilobus*
46-55.5	1-1, 140			X				X	X			X	X			X	X			X
	1-2, 80		X	X				X	X	X	X	X				X	X			X
	1-3, 14			X					X							X	X	X	X	
	1-4, 40		X	X				X	X	X	X	X					X			
	1-4, 85			X				X	X			X								
	1-5, 35		X	X				X	X			X					X			
	1, CC			X					X								X			
280.5-290	2,CC	X		X					X					X	X	X	X	X		
293-302.5	3-1, 90	X		X		X	X					X		X	X					
	3-2, 50	X	X	X	X	X								X	X	X		X		X
	3-3, 50	X	X	X	X	X			X					X	X	X		X		X
	3-4, 70	X	X	X	X	X	cf							X	X	X		X		X
	3-5, 120	X	X	X	X	X								X	X			X		X
	3-6, 90	X	X			X	cf		X					X	X		X			
	3, CC	X	X	X	X	X	cf		X					X	X	X				X
302.5-312	4-1, 4		X	X	X	X			X					X	X	X	X			X
	4-1, 9		X	X	X		X		X					X	X					X

Depth Below Bottom (m)	Sample (cm from top)	*Globorotalia* *acostaensis*	*eggeri*	*inflata*	*humerosa*	*margaritae evoluta*	*margaritae margaritae*	*margaritae primitiva*	*obesa*	*oscitans*	*pseudopachyderma*	*puncticulata*	*scitula*	*truncatulinoides*	*Globigerinita glutinata*	*Globigerinita uvula*	*Globoquadrina altispira*	*Hastigerina siphonifera*	*Orbulina bilobata*	*Orbulina universa*	*Sphaeroidinellopsis seminulina*	*Sphaeroidinellopsis subdehiscens*
46-55.5	1-1, 140			X						X			X		X			X		X		
	1-2, 80		X	X						X				X	X			X		X		
	1-3, 14		X	X						X			X		X	X		X		X		
	1-4, 40		X	X						X			X		X			X				
	1-4, 85		X	X						X					X			X	X	X		
	1-5, 35			X									X		X					X		
	1, CC			X						X			X	X	X			X		X		
280.5-290	2,CC											X	X		X		X			X	X	X
293-302.5	3-1, 90	X	cf			X	X	X				X			X		X	X		X	X	X
	3-2, 50					X			X			X			X		X	X	X	X		
	3-3, 50	X				X	X			X	X	X	X		X					X		
	3-4, 70	X					X					X			X			X	X	X		
	3-5, 120						X	X			X		X		X					X		
	3-6, 90	X	cf			X	X						X		X				X	X		
	3, CC				X		X		X						X					X		X
302.5-312	4-1, 4	X					X	X					X		X					X		
	4-1, 9						X	X					X							X		

Depth Below Bottom (m)	Sample (cm from top)	Other Fossil Remains: Prodissoconchs	Plant debris	Pteropods	Holoturian sclerites	Siliceous sponge spicules	Ostracodes	Echinoid spines	Organic matter	Otoliths, fish teeth	Molluscan debris	Spores	Minerals: Pyrite	Detritus	Gypsum	Volcanic ash (?)	Zone	Age
46-55.5	1-1, 140					X	X	X			X			X			*Globorotalia truncatulinoides*	Pleistocene
	1-2, 80							X			X							
	1-3, 14					X		X			X					X		
	1-4, 40						X	X						X				
	1-4, 85	X		X				X	X					X				
	1-5, 35	X		X	X	X	X	X	X					X				
	1, CC		X			X	X	X						X				
280.5-290	2,CC		X					X	X				X	X			M-Pl4	Late Pliocene
293-302.5	3-1, 90						X	X	X				X				M-Pl13	Early Pliocene
	3-2, 50							X	X									
	3-3, 50						X	X	X									
	3-4, 70						X	X	X									
	3-5, 120						X	X	X								M-Pl12	
	3-6, 90						X		X									
	3, CC		X					X	X					X				
302.5-312	4-1, 4								X			X	X	X	X			
	4-1, 9						X	X	X			X		X				

TABLE 11
Planktonic Foraminifers and Other Microfossils at Site 371, Cores 1-8

Legend
- • 1 to 3 specimens
- ● 3 to 6 specimens
- ● 6 to 20 specimens
- ● >20 specimens
- R: reworked

| Depth Below Sea Floor (m) | Recovery (m) | Sample (Interval in cm) | Reworked Cretaceous Species | *Gg. bulloides* | *Gg. decoraperta* | *Gg.* aff. *falconensis* | *Gg. nepenthes* | *Gt. glutinata* | *Gs. elongatus* | *Gs. obliquus* | *Gs. obliquus extremus* | *Gs. sacculifer* | *Gs. trilobus* | *Gr. margaritae primitiva* | *Gr. margaritae* | *Gr. acostaensis* | *Gr. obesa* | *Gr. scitula* | *H. siphonifera/aequilateralis* | *O. universa* | *S. subdehiscens* | *T. quinqueloba* | *T. quinquelobe lingulata* | *Gr. puncticulata* | *Gg. apertura* | *Gr.* cf. *hexagona* | *S. seminulina* | *Gs. ruber* | *Gg. altispira* | *Gr. aemiliana* | *Gg. umbilicata* | *Gr. incompta/pachyderma* | *Gs. ruber* thick wall | *Gr. crassaformis* sens. lat. | *Gr. inflata* | *Gr. oscitans* | *S. dehiscens* immatura | *Gg. praecalida* | *Gr. dutertrei-gr. humerosa* | *Gr. crassaformis* cf. *viola* | *Gr. truncatulinoides* | *Gr. hirsuta* | *Gs. tenellus* | *Gr. anfracta* | *Gg. praedigitata* | *Gg. eggeri* | *H. riedeli* | *Gr. bermudezi* | *Gr. cavernula* | *H. pelagica* | *T. humilis* | *Gr.* aff. *calida* | *Gs. sulcki* | Ech. spines | Fish remains | Ostracods | Pteropods | Otoliths | Zones | Stages |
|---|---|---

TABLE 12
Planktonic Foraminifers and Other Microfossils at Site 372, Cores 1-6

Legend
- • 1 to 3 specimens
- ● 3 to 6 specimens
- ● 6 to 20 specimens
- ● >20 specimens
- R: reworked

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	Gg. aff. clarkei	T. multiloba	Dwarfed microfauna	Gr. mediterranea	Gr. exserta	Gr. pseudomiocenica	T. quinqueloba	Gs. obliquus extremus	Gr. acostaensis	Gr. humerosa	Gg. aff. falconensis	Gg. apertura	Gt. glutinata	Gt. uvula	Gs. obliquus	Gs. elongatus	Gs. trilobus	Gq. altispira	Gr. scitula	Gr. margaritae	Gr. puncticulata	Gr. aemiliana	H. siphonifera	S. cf. seminulina	D. universa	Gg. bulloides	T. quinqueloba lingulata	G. sallentina	S. subdehiscens	Gs. sacculifer	Gs. aff. sacculifer fistulosus	Gr. bononiensis	Gr. cf. hexagona	Gg. umbilicata	Gs. ruber	Gr. cf. pseudo opima	Gr. crassaformis	Gr. gr. menardii	Gs. ruber thick wall	S. dehiscens	Gr. inflata	Gr. pachyderma/incompta	Gs. conglobatus	Gr. crassaformis ronda	Gr. oscitans	Gg. praecalida	H. riedeli	Gr. anfracta	Gr. bermudezi	Gs. tenellus	Gr. truncatulinoides	H. praedigitata	Echinoid spines	Ostracods	Zones	Stages
112-121.5	4.2	1-1, 140-142							•				•		•	•		•	•		•				•		●	•	•			•				●	●								●	●		●	●	•		•	•	●	•			1	Quaternary
		1-2, 90-92							●				•		•	•		•	•		●				•		●	●	•			•							●		•				●	●		●	●			•	•	●					
		1-3, 100-102							•				•		•	•		●									●	●											●		•				●	●		●	●				•	●	•				
		1-4, 30-32							●									●	•		•							●	•									●							●	●		•	•				•	•					
		1, CC							●								R•	●									●	●	•							•	●								●	●		●		•	•									
131-140.5	5.2	2-1, 117-119							●	•			•		•	•	●	●									●	●	•			●	●			●	●			•	●			●	●			●	•											
		2-2, 27-29							●	●			●		•	•	●	●	●								●	●				●				●	●				●			●	●												•			
		2-2, 100-102							●	●			●		•	•	●	●					R•	R•			●	●	•													●			●	●		•												
		2-2, 135-137								●			•				●	●						R•			●	●									●		•			●	●		●	●															
		2-3, 41-43								●			•				●	●			•						●	●								•			•		●	●			●															
		2-3, 120-122							•	•			●	●			•	●			•				●		●	●								•	●				•	●	●		●															
		2-3, 126-128								•			•				•	●				R•	•	•													●		•		●	●		•	●															
		2-4, 76-78							•	●			●	●			●	●	●					●			●					•		•		•	●		●																					
		2-4, 106-108								●			•	•			●	●	●					●	•		●	●				•				•	●		●																					
		2-4, 110-112								●			●	●			●	●	●					●			●	●				•					●		●																					
		2, CC								●			•	•			●	●	●					●			●	●						•			●		●																					
140.5-150	4.3	3-1, 48-50							•	●			●	●	•	•	●	●	●					●			●	●				•		●		●																								
		3-1, 65-67							•	●			●	●	•	•	●	●	●					●			●	●						●	●	•			•	●	•																			
		3-1, 139-141							●	●			●	●	•	•	●	●	●				R•	●			●	●				•		●		•	•	●		●																				
		3-2, 24-26							•	●			•	●	•	•	●	●	●		•			●	•		●	●				•		●	●	•	•	●	●																		•			
		3-2, 75-77							●	●				●	•	•	●	●	●					●	●		●	●				●		•		•	●																							
		3-2, 100-102							●	●			●	●	•	•	●	●	●				R•	●	●		●	●				•				•																					•			
		3-2, 115-117							●	●			●	●	•	•	●	●	●		•			●	•		●	•	•			●	•	•	●	●																								
		3-2, 142-144							●	●			●	•	●	●	●	●	●		•	R•	●	●	●		●	●	•			•	•	•	●																								
		3-3, 6-8							●	●	•			●	•		●	●	●		•	●	●				●	●																															
		3-3, 20-22							●	●			●	●	•		●	●	●	●	•	●	●		●		●	●																																
		3-3, 84-86							●	●	•		•	•	•	•	●	●	●		•	●	●	•		●	●	•																																
		3-3, 100-102							●	●	•		●	●	•	•	●	●	●	●	•	●	●		•	•	●	•	•	•	•																													
		3-3, 116-118							●	●	•		●	•	•	•	●	●	●	●	•	●	●				●	•	•																															
		3, CC							●	●	●	●	●	•	•	•	●	●	●	●	•	●	●		•		●	•	•																															
150-159.5	2.5	4-1, 59-61							•	●	•	•	●	●	•	•	●	•	●	●	●	●	●	•	•	•																																	
		4-1, 64-65			●				●																																																		
		4-1, 90-92			●				●																																																		
		4-1, 140-142			●																																																						
		4-2, 1-3			●	•	•	•	●	•	•																																														
		4-2, 100-102			●																																																					
		4, CC																																																									
159.5-169	0.4	5-1, 132-133	●																																																							
		5, CC																																																								
169-178.5	0.4	6-1, 142-144	•	•																																																						
		6, CC																																																								

Zones	Stages
1	Quaternary
Gr. inflata	Upper Pliocene
Gs. obliquus extremus	Upper Pliocene
2	Lower Pliocene
Gr. humerosa	Upper Miocene

Footnotes: 1 *Gr. truncatulinoides*
2 *Gr. margaritae evoluta*

TABLE 13
Planktonic Foraminifers and Other Microfossils at Site 372, Cores 9-15

Legend
- • 1 to 3 specimens
- ● 3 to 6 specimens
- ● 6 to 20 specimens
- ● >20 specimens
- R: reworked

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	*Gg. angusti umbilicata*	*Gg. druryi*	*Gta. glutinata*	*Gs. obliquus*	*Gs. sacculifer subsacculifer*	*Gs. subquadratus*	*Gs. trilobus*	*Gr. continuosa*	*Gr. mayeri-siakensis*	*Gr. scitula*	*O. universa*	*O. suturalis*	*Gq. altispira*	*Gq. dehiscens*	*Gr. gr. menardii*	*Gg. nepenthes*	*Gr. obesa*	*Gg. praebulloides*	*Gr. scitula* var. A	*Globigerinopsoides* sp.	*O. bilobata*	*Gq. baroemoenensis*	*Gr. gr. miozea*	*S. seminulina*	*S. subdehiscens*	*Gr. praemenardii*	*Globorotalia* sp. B	*Gr. scitula gigantea*	*Gr. cf. lenguaensis*	*Gr. scitula ventriosa*	*Gr. menardii* sp. 3 Zachariasse	*Gr. acostaensis*	*Gr. menardii* sp. 4 Zachariasse	*Cassigerinella* sp. (reworked)	*Ammonia tepida*	*Bolivina* spp.	Fish teeth/bones	Echinoid spines	Ostracods	Bolboforma spp.	Zones	Stages
			Planktonic Foraminifers																																		Other Microfossils							
197.5-207	5.4	9-1, 96-98										•				•				•																•	•						*Globorotalia acostaensis*	Lower Tortonian
		9-1, 130-132						•	•	•		•				•				•														•		•	•								
		9-1, 140-142			•			•	•	•										•					•							•	•	•	•		•								
		9-1, 148-149		•	•	•		•	•	•								•		•										•		•		•		•									
		9-2, 28-30				•		•	•	•				•						•																	•			•					
		9-2, 75-77		•		•		•	•	•	R•		•	•	•			•		•				•	•							•	•					•				•			
		9-2, 110-112	•	•	•	•		•	•	•		•	•	•	•			•		•				•								•	•					•				•			
		9-3, 20-22	•			•		•	•	•		•	•	•		•			•					•								•				•		•				•			
		9-4, 100-102	•	•		•		•	•	•	R•	•	•	•	•			•	•	•					•							•						•				•			
		9, CC	•	•	•	•		•	•			•	•	•	•					•				•														•				•			
207-216.5	2.5	10-1, 120-122	•	•	•	•		•	•	•		•	•	•	•	•	•	•	•	•				•								•	•					•				•	*Globorotalia menardii*	
		10-2, 5-7	•		•	•		•	•	•			•	•	•	•			•	•	•			•	•					•		•	•					•				•			
		10-2, 100-102	•		•	•		•	•	•		•	•	•			•			•	•												•					•				•			
		10, CC	•	•	•			•	•	•	•	•	•	•	•				•	•	•			•	•							•													
216.5-226	3.9	11-1, 120-122	•		•	•	•	•	•	•	•		•	•			•		•	•	•			•	•			•				•						•	•			•	*Globorotalia mayeri*	Serravallian
		11-2, 100-102	•		•		•	•	•	•	•		•	•			•		•	•				•	•						•							•				•			
		11-3, 100-102	•					•	•	•	•		•	•			•		•	•				•	•													•				•			
		11-3, 140-142	•		•			•		•	•		•	•	•		•							•	•						•							•				•			
		11, CC		•		•		•		•	•		•	•	•		•	•			•			•						•								•				•			
226-235.5	6.5	12-1, 13-15	•		•	•		•	•		•		•	•	•	•			•	•						•	•											•			•			
		12-3, 110-120	•		•			•	•	•	•	•	•	•							•							•										•			•	•			
		12-3, 128-130	•		•			•	•	•	•		•	•					•		•							•										•							
		12-4, 100-102	•		•				•		•		•	•		•			•	•	•					•	•											•			•	•			
		12-5, 100-102	•		•			•	•		•	•	•	•	•	•								•														•							
		12-6, 100-102	•	•				•	•	•	•		•	•		•	•	•								•	•	•		•	•							•				•			
		12, CC	•	•	•			•			•		•	•			•	•								•	•											•				•			
235.5-245	9.2	13-1, 100-102	•		•			•	•	•	•	•	•	•	•									•					•									•	•		•	•			
		13-2, 100-102	•		•		•	•	•		•		•	•	•									•														•			•	•			
		13-3, 100-102	•		•			•	•	•	•	•	•	•	•					•	•	•																•	•						
		13-4, 100-102	•	•	•	•		•	•				•	•	•			•		•		•			•					•								•	•			•			
		13-5, 100-102	•						•	•	•		•	•	•	•	•		•	•	•																	•	•		•	•			
		13-6, 100-102	•					•	•				•	•	•		•					•		•				•										•				•			
		13, CC	•	•	•			•	•				•	•	•		•				•	•						•										•				•			
245-254.5	8.6	14-1, 100-102	•	•					•				•	•		•		•	•	•								•										•							
		14-2, 100-102	•	•	•			•	•				•	•			•	•	•		•							•										•			•				
		14-3, 100-102	•		•			•	•				•	•	•				•	•	•			•														•	•			•			
		14-4, 90-92	•		•		•	•	•	•	•		•	•	•				•	•		•		•			•											•	•			•			
		14-5, 100-102	•	•					•		•		•	•	•		•	•							•	•												•			•				
		14-6, 100-102	•	•				•	•				•	•	•	•	•	•			•	•		•														•				•			
		14, CC	•	•	•				•			•	•	•			•	•		•	•																	•				•			
254.5-264	7.7	15-2, 100-102	•		•		•						•	•	•					•	•																	•	•						
		15-3, 100-102	•		•		•	•	•	•	•	•	•	•					•	•	•	•	•															•				•			
		15-4, 100-102	•		•			•	•	•	•	•	•	•	•			•	•	•	•																	•	•			•			
		15-5, 100-102	•						•		•		•	•	•			•	•																			•				•			
		15-6, 100-102	•		•		•	•	•	•	•	•	•	•	•	•	•																					•							
		15, CC	•	•	•	•	•	•	•	•	•	•	•	•																								•	•						

TABLE 14
Planktonic Foraminifers and Other Microfossils at Site 372, Cores 16-23

Legend
- • 1 to 3 specimens
- ● 3 to 6 specimens
- ● 6 to 20 specimens
- ● >20 specimens
- R: reworked

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	*Gg. angustiumbilicata*	*Gg. falconensis*	*Gg. woodi*	*Gta. glutinata*	*Gta. uvula*	*Gs. trilobus*	*Gr. fohsi peripheroronda*	*Gr. minutissima*	*Gr. obesa*	*Gr. scitula*	*Gr. praescitula*	*O. suturalis*	*O. universa*	*Gg. juvenilis*	*Gs. sacculifer subsacculifer*	*H. siphonifera praesiphonifera*	*Gq. altispira*	*Gq. dehiscens*	*Gr. archeomenardii*	*Gr. gr. miozea*	*Gr. magnifica* n. sp.	*Gr. continuosa/jacrostoma*	*Gg. praebulloides*	*Gta. ambitacrena*	*Gs. subquadratus*	*Gg. foliata*	*Gq. baroemoenensis*	*Gr. praemenardii*	*Gg. druryi*	*Gs. obliquus obliquus*	*H. siphonifera/aequilateralis*	*O. bilobata*	*Gr. gr. mayeri-siakensis*	*S. seminulina*	*Globigerinopsis* sp.	*Gr. gr. menardii*	*Gr.* aff. *lenguaensis*	*S. subdehiscens*	*Gg. nepenthes*	Fish: Teeth/bones	Ostracods	Shell fragments	Radiolaria	Echinoid spines	Bolboforma spp.	Zones	Stages
			Planktonic Foraminifers																																							Other Microfossils							
264-273.5	8.7	16-1, 100-102	●			•		●			●			●	●				●								•		•	•	•				●			•			●		•			•				Globorotalia mayeri	Serravallian
		16-2, 100-102	●					●			●			●	●				●					●	●		●		•	•					●		•	●					•			•				
		16-3, 90-92	●					●			●			●	●	•			•	•		•		•	•					●					●	●			•					•	•		•	•		
		16-4, 100-102	●			•	•	●			•			●	●	•	•					•		•	•				●	●					●				●											
		16-5, 100-102	●			•	•	●			•			●	●	•					●	•		•	•		●			●					●				●				•	•		•				
		16-6, 90-92	●			•	•	●		●	•			●	●	•			•					●	•				●	●	●		•	•	●	•	•			•			•			•		•		
		16, CC	●			•	•	●		●	•			●	•	•	•		●			●		●	●					•	●		●		●								•	•		•		•		
273.5-283	8.6	17-1, 100-102	●	●		•	•	●		●	●			●	•	•			●			●		●	●				●				•	•	●										•		•		
		17-2, 100-102	●	●		•		●			●			●	●	•			•					●	●				●		•		•		●								•	•		•	•		
		17-3, 100-102	●			•		●	R•	●	●			●	●	●				●		●		●	●										●								•					•		
		17-4, 100-102	●	●		•		●			●			●	●					●				●	●										●								•	•						
		17-5, 100-102	●	●		•		●		●	•	•		●	●							●			•				•	•					●								•	•		•				
		17-6, 100-102	●	●		•		●		●	●			●	●				●			●							●		•				●								•	•		•				
		17, CC	●			•	•	●			●			●	●	•			●			●						•	●	●			•		●								•	•		•		•		
283-292.5	8.7	18-1, 100-102	●			•		●		●		•		●	●	●			●			●			●	●			●						●								•	•						
		18-2, 130-132	●			•		●				•		●	●				•			●		●	●		●		●	•					●								•	•		•		•		
		18-3, 90-100	●			•		●				•		●	●				•					●	●										●								•							
		18-4, 100-102	●	•		•	•	●		●	●	•		●	●					●				●	●		●	●	●		●				●								•							
		18-5, 110-112	●			•		●			●	•		●	●	•			●			•		●			●		●		●				●								•			•				
		18-6, 100-102	●			•		●			●	•		●	●				•			•		●	●		●								●								•					•		
		18, CC	●	●		•		●			●	•		●	•	•			•			•		●	●				•						●								•	•		•				
292.5-302	8.9	19-1, 100-102	●	●		•		●		●	●	●		●	●	•			●			●		●	●		●	●	●		●				●													•	
		19-2, 100-102	●	●		●		●			●	•		●	●	•			●					●	●	●		●	●		●		●		●								•							
		19-3, 100-102	●	●		•		●			•	•		•	•	•			●			●		●	●				●				●		●								•							
		19-4, 100-102	●	●		●	•	●			●	●		●	●				●			●			•		●	●	●	●	●				●		•						•			•				
		19-5, 100-102	●	●		•		●			•	●		●	•	•			●			●			●				●	•					●	●										•				
		19-6, 100-102	●	●		•		●			•	●		●	•	•			●					●	●				●						●								•	•		•				
302-311.5	9.5	20-1, 100-102	●	●		•		●			●	•		●					●			●			•				●	●													•			•				
		20-2, 100-102	●	●		•	•	●		●	•	•		●	•	•	•		●					•	●				●														•							
		20-3, 100-102	●	●		•	•	●		•	●	●		●	•	•	•		●			•			●		●		●		•														•		•		
		20-4, 100-102	●	●		•		●		●	●	●		●	●		•		●			•			●				●		•												•							
		20-5, 100-102	●	●		•	•	●		●	●	●		●	●	●	•		●					●	●				●		•												•	•						
		20-6, 100-102	●	●		•	•	●		●	●	●		●	●	•	●		●					●	●	•			●		•					●							•	•						
311.5-321	8.0	21-2, 100-102	●	●		•	•	●			•	●		●	●	•	●	●	●	•		●			●				●		●	•	●	●									•							
		21-3, 100-102	●	●		•	•	●			•	●		●	●	•	•	•	●		•	●			●				●	●													•	•			•			
		21-4, 100-102	●	●		•	•	●		●	●	●		●	●	•		•	•		•	●		•	●	•			●																					
		21-5, 131-132	●	●		●	•	●	●			●		●		•	•	•	●	●		●			●			•	•														•							Globorotalia fohsi peripheroronda	Langhian
		21-6, 100-102	●	●		●	•	●	●		●	●		●	•	•	•		●			●			●																		•	•						
		21, CC	●	●		•	●	●	●		●	●		●	•	•	•		●		•	●	•																				•	•						
321-330.5	6.2	22-1, 100-102	●	●		•	●	●	●	●	●	●	•	●	•	•		●	●	●		●			●				●	●													•						
		22-2, 100-102	●	●		•	●	●	●	●	•	●		●	•	●		•	●	●																									•				
		22-3, 100-102	●	●		•	●	●	●	•	•	●	•	●	•	•	•	•	●		•	●																							•		•		
		22-4, 100-102	●	●		●	●	●	●	●	●	•	•	●	•	•	•		●			●	•																										
330.5-340	8.2	23-1, 140-142	●	●		•	●	●	•			•		●	•	●	•		●		●	•	●	•	•	•			●	•												•							
		23-2, 100-102	●	●	●	•	●	●	•	●	●	●		●		•	•	•	•	●		●		●					●	●												•							
		23-3, 100-102	●	●		●	●	●	●	●	●	●		●	●		•		●		●	●	●	•	●				●	●												•							
		23-4, 100-102	●	●		●	●	●	●	●	●	●	•	●	•	•	•	●	●	●	●	●	●	•	•	●	●	●	•																●	●				
		23-5, 100-102	●	●	●	●	●	●	●	●	●	●	•	●		•	●	•	●	●	●	●	●	●																		•	•						
		23-6, 100-102	●	●	•	●	•	●	●	●	●	●	●	●	•	•	•	•	•	•																							•	•						
		23, CC	●	●	●	●	●	●	●	●	●	●		●	•																												•							

TABLE 15
Planktonic Foraminifers and Other Microfossils at Site 372, Cores 24-32

Legend
- • 1 to 3 specimens
- ● 3 to 6 specimens
- ● 6 to 20 specimens
- ● >20 specimens

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	Planktonic Foraminifers: *Cassigerinella chipolensis*	*Gg. angustiumbilicata*	*Gg. bolli*	*Gg.* cf. *ciperoensis*	*Gg. falconensis*	*Gg. praebulloides*	*Gg. venezuelana*	*Gg. woodi*	*Gt. glutinata lambitacrena*	*Gs. altiaperturus*	*Gs. diminutus*	*Gs. obliquus*	*Gs. subquadratus*	*Gs. trilobus*	*Gq. altispira*	*Gq. baroemoenensis*	*Gq. langhiana*	*Gr. acrostoma*	*Gr.* aff. *peripheroronda*	*Gr. obesa*	*Gr. scitula praescitula*	*H. siphonifera praesiphonifera*	*Gs. subquadratus subelongatus*	*Gq. dehiscens*	*G. insueta*	*Gr. fohsi peripheroronda*	*Gs. bisphericus*	*Gs. subsacculifer*	*P. transitoria*	*P. glomerosa curva*	*Gg. juvenilis*	*Gr. mayeri-siakensis*	*Gr. archeomenardii*	*Protentella* sp.	*P. glomerosa glomerosa*	*P. glomerosa circularis*	*O. suturalis*	*Gr. continuosa*	*O. universa*	*O. bilobata*	Other Microfossils: Fish: Teeth/bones	Echinoid spines	Ostracods	Radiolaria	Shell debris	Zones	Stages
340-349.5	9.5	24-2, 14-16		●						●						●							●					●		•					•				●				•							
		24-3, 70-72		●			●	●		●	●					●							●							•									•				•							
		24-4, 110-112		●				●								●	●					●				●				•									●				•							
		24-5, 140-142		●			●	●								●	●	●				●	●							•									●				•							
		24, CC		●				●								●	●	●				●	●							•									●				•							
349.5-359	9.5	25-1, 100-102		●			●	●			●					●					●	●		●														●				•							
		25-2, 126-128		●			●	●						•		●	●	●			●		●															●	•	●									
		25-3, 119-121		●			●	●			●			•		●	•	●			●	●	●	●														●		●		•							
		25-4, 120-122		●			●	●			●				●	●	●	●			●	●	●	●										●				●		●		•		•					
		25-5, 128-130	•	●				●		•	•			•		●	●	●				•	●							•								●	•	●		•							
		25, CC		●				●			●			●		●		●		•		•	●			●												●		●	●	•		•					
359-368.5	7.7	26-1, 100-102		●				●								●	●	●		•			●						●	•				●				●	•	●	•	●	●							
		26-2, 119-121		●			•									●	●	●	•	•		●	●			•							●	●				●					•		•		•		
		26-3, 100-102		●				●								●	●	●		•		●	●			•								●				●											
		26, CC		●				●								●	●	●		•			●									●		●				●					•					•		
368.5-378	6.6	27-1, 130		●	●		●	●								●	●	●				●		●		●			●					●				●	●	●									
		27-2, 100-102	•	●				●								●					•	•		●		●		•	•	•	•			●	•			●	●				•							
		27-2, 110-112		●				•		•												•	●	●		●			●		•			●				●	•				•							
		27-2, 130-132		●				●		•						●	●	●					●	●		●		●		•				●				●					•							
		27-3, 136-138	•	●											•	●	●	●				•	●	●		•			•					●				●					•							
		27-4, 100-102	•	●				●			•					●	●	●				•	●			•						•		●		●		●												
		27-5, 91-93	•	●	●		•	●							•	●			•	•		•	●			•			•		•	•	•	•	•			•	●				•		•					
		27, CC		●	●	•	●									●	•	●				●	●		●				●						•				•				•							
378-387.5	8.4	28-1, 110-112		●	•		●				•				•	●	●	●				●	●	•		●			●		•	•					●	●				•	•						
		28-2, 100-102		●	•			●								●		●				●							●	•												•							
		28-3, 100-102			•								•		•	●		●				•	●	●					●								●					•							
		28-4, 90-92	•	●		•	●									●	•	●				●	●	●	•				●	•	●	●					●					•							
		28-5, 80-82	•	●		•									•	●	●	●					●			●			●		●	●					●					•							
		28, CC	•	●			●	●								●	●	●					●		●				●		●	●				●	•					•							
387.5-397	7.1	29-1, 110-112	●	●			●	●							•	●	•	●	●			●	●	●		●			●	•	●	●									•							
		29-2, 100-102														●																															•		
		29-3, 100-102	●	●			●			●					•	●	•	●	•			●	●	●	•	●			●		•	•										•							
		29-4, 113-115		●				●								●					●		●			●			●													•							
		29-5, 40-42			●		●	●				•				●		●				●	●						●		•	●										•		•			•		
		29-5, 140-142					•	●								●	•	●	●							●			●		•	•															•		
		29, CC	●				•	●								●	●	●	●				●			●			●		•	•										•							
397-406.5	7.9	30-2, 75-77	•	●			•	●								●	●	●				•	●						●	•	●	●	•	●												•		
		30-3, 90-92	●													●	•	●								●			●	•	•	●											•	•	•				
		30-4, 95-97	●	●				•					•		●	●	●	●	●			●	●																										
		30-6, 100-102	●	●			•				•					●	•	●	●			●	●			●			●		•	●											•	•	•				
		30, CC	●	●			•				•					●	•	●	●			●	●			●			●		•	●											•						
416-425.5	8.4	31-1, 130-132	•	●	•		•	●				●			●	●	•	●	●				●	●		•		●		•	•	●	•									•						
		31-2, 100-102					•								●	●	•		●				●	●					●		•	●											•	•					
		31-5, 90-92		●			•	●	•							●	•	●	●			•	●						●	•															•	•		
435-444.5	9.5	32-0, 30-32	•	●	•		•	●			•		•		●	●	•	●	●		•	•	●	•		●		•	●	•														•				
		32-1, 100-102	•	●	•		•	●			•		●		●	●		●	●		●	●	●			●			●														•	•					
		32-3, 70-72	●	•		●							●		●	●	•						●					•	●														•						
		32-4, 73-75	••	•		•	•	•					●		●	●				•			●			•		•															•	•					
		32-5, 72-74		●								•			●	●	•	●					●			•	•	●															•						
		32-6, 132-134	●	●		•	•			●	•		●	•	●	●			●		●	•	●	●	●																		•						
		32, CC	●	●	•	●	•	●		●	•	•	•	•	●	●	●	●	●	●	●	●	●	●																			•						

Zones: *Gr. fohsi peripheroronda*; *Praeorbulina glomerosa*; *Gs. trilobus*

Stages: Langhian; Burdigalian

TABLE 16
Planktonic Foraminifers and Other Microfossils at Site 372, Cores 33-46

Legend: • 1 to 3 specimens; ● 3 to 6 specimens; ● 6 to 20 specimens; ● >20 specimens

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	*Gg. praebulloides*	*Gt. glutinata*	*Gs. trilobus* sens. lat.	*Gr. scitula praescitula*	*C. chipolensis*	*Gg. angustiumbilicata*	*Gr. woodi*	*Gr. acrostoma*	*Gt. urula*	*Gs. altiaperturus*	*Gr. siakensis mayeri*	*Gr. obesa*	*Gg. juvenilis*	*Gg. bolli*	*Gg.* cf. *ciperoensis*	*Gt. unicavus*	*Gq. langhiana*	*Gs. subquadratus*	*Gt. naparimaensis*	*Gr. continuosa*	*Gt. dissimilis*	*Gg.* cf. *venezuelana*	*Gr. minutissima*	*Gg. tripartita*	*Gq. altispira*	*Gq. dehiscens*	*Gs. sacculifer subsacculifer*	*Gs. diminutus*	*Gq. baroemoenensis*	*Gg. falconensis*	Fish teeth/bones	Echinoid spines	Ostracods	Radiolaria	Shell debris	Sponge spicules	Zones	Stages
			Planktonic Foraminifers																														Other Microfossils							
463.5-473	9.5	33-1, 98-100	●	•	●		●	•		●			●	●					●	●		•					•			•	●	•							*Gs. trilobus*	Burdigalian
		33-2, 90-92	•	•	●	●	●			●			●		•					●		•		•			•	•												
		33-3, 100-102																															•		•					
		33-3, 116-118	●		●	●				●			●		•		•			●		•				•	●			●				•		•				
		33-4, 120-122	•	•	●	•	●			●			●				•			●		•	•				●	●				•	•	•			•			
		33-5, 14-16	●	•	●		●			●	•	•	●	•			•						●				•	●	•		●	•		•		●	•		*Globigerinoides altiaperturus – Globigerinita dissimilis*	
		33-5, 98-100	•	•	●	•	●	●		●	•		●	•	•	•			●	●		•	•		•		•	●	•	•		•	•	•		●	•			
		33-5, 132-134			●	•	●			●			●				●						●	•		●	•	●		•	•		•	•		●				
		33-6, 12-14	●		●		•			●			●	●				•	●	•		•	●			•	●	●		•	•	•		•		●				
		33-6, 100-102	●		●		●	●		•			●	●					•	•								●						•		●				
492-501.5	6.8	34-1, 110-112	•		•		•			•								•										●					•			●				
		34-4, 97-99	●	•	●		●	•		●			●	●				•							•		•	●	•				•			•	•			
		34-5, 90-92	•	•	●				•	●			•	•	•			•		•		●			•		●	●					•			•				
		34, CC		•			●			●																		●					•			●				
529-538.5	3.9	35-1, 90-92	•		•		●	•		•	•		●	•	•			•	●			•					•	●					•	•		●				
		35-2, 105-107		•	●		●			•		●	•		●				●						•			●						•		●				
		35, CC		•	•		•		•	●			●		•							•	●				•	●								•				
568-577.5	9.5	36-1, 100-102	●				•			●									●				•					●						●		●				
		36-2, 90-92	●	●			●		•	●					•								●					●						•		●				
		36-3, 78-80		●	●		●												●			•	●				•	●						•		●				
		36-3, 106-108	●	•			●			•	•								●									●						•		●				
		36-5, 103-105	•				●																					●						•		●				
		36-6, 110-112	●	•	●		●	●					●													•	●	●								●				
606-615	5.4	37-2, 91-93					●			●			•		•		•		•				•											•	•	●				
		37-3, 119-121			●		●			●		•	●						•			•												•		●				
		37, CC		•	●		●								•				●																	●				
644-653.5	9.5	38-4, 19-21	●				•																•										●	●		●				
		38, CC			●		●	●	●			●	●							•		●		●	●									•		●				
682-691.5	9.5	39-1, 56-58	●		●		●							•																						●				
		39-3, 11-13	●		●		●			●	•			•		•		•	●				●											•		●	•			
		39, CC	•		●		●	•	●	•			•				●	•				●												•		●				
720-729.5	8.3	40-4, 27-29	●		●		●																													•				
		40, CC			•		●		•	•				•																				•		●				
758-767.5	9.5	41-3, 108-110	•		●		●	●	●	•	•	●	●	•	•		●		•	•	•													•		●				
		41, CC	•		●		●		●	•			•						•														•	•		●				
786.5-796	9.5	42-4, 79-81	•	●	●		●	●	●				•						●																	●				
		42, CC	•	●			●		●					•		•	•																	•		●				
796-805	7.5	43-3, 128-130	●		●		●	•	●	●			●	•		●	•		•															•		●				
		43, CC	•		•		•							•																						●				
834-843.5	9.5	44-1, 127-129	●	•	●		●	•	●				•		•		●			•													•			●				
		44-2, 90-92	●	•	●		●		●			•	•	•			●																•	•	•	•				
		44-3, 44-46	●	●			●	●	●			●	●	•			●	●	●															•		●				
		44-4, 90-92	●	•	•		●	●	•				●		•																			•		●				
		44, CC					●							•		•	•	•	•														•			●				
872-881.5	9.5	45-3, 20-22	•				●	•																												●				
		45-4, 40-42					●	•																												●				
		45-5, 140-142	•		•		•																													●				
		45-6, 127-129	•	•	●		●		●	•	•	•	●	•																						●				
881.5-885	3.3	46-2, 80-82					●	•																									•	•		●				
		46-2, 137-139		•	•	•	●	●																												●				
		46-3, 47-49					•	•																												•				
		46, CC	●	•	●	•																														•		•		

TABLE 17
Planktonic Foraminifers and Other Microfossils at Site 374, Cores 1-7

Legend
- • 1 to 3 specimens
- • 3 to 6 specimens
- • 6 to 20 specimens
- • >20 specimens
- R: reworked

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	*Gg. apertura*	*Gg.* aff. *falconensis*	*Gta. glutinata*	*Gs. elongatus*	*Gs. obliquus obliquus*	*Gs. obliquus extremus*	*Gz. trilobus*	*Gr. acostaensis*	*Gr. margaritae*	*Gr. puncticulata*	*Gr. scitula*	*O. universa*	*S. seminulina*	*S. subdehiscens*	*T. quinqueloba*	*Gs. sacculifer*	*T. quinqueloba lingulata*	*Gq. altispira*	*Gr. aemiliana*	*Gr. crassaformis*	*Gs. ruber*	*Gg. bulloides*	*Gg. umbilicata*	*Gr.* aff. *bononiensis*	*Gg. incompta*	*Gs.* aff. *fistulosus*	*Gr. tosaensis*	*Gr. truncatulinoides*	*Gr. ruber* thick wall	*T. clarkei*	*S. dehiscens*	*G. aequilateralis*	*H. riedeli*	*Gg. praeculida*	*Gr. anfracta*	*Gr. inflata*	*Gr. bermudezi*	*Gr. oscitans*	*Gr. pachyderma*	*Gg.* cf. *eggeri*	*T. iota*	*Gs. tenellus*	*Gr. humerosa*	*H.* aff. *digitata*	Pteropods	Shell fragments	Sponge spicules	Zones	Stages
			Planktonic Foraminifers																																													Other Microfossils				
100.5-110	2.6	1-1, 120-122															●															●				●	●											•	•	•	*Globorotalia truncatulinoides*	Quaternary
		1-2, 70-72			•								•				•		•				•			•						●				•				•				•	•	•	•	•				
		1, CC			•								•	•			•		•				•				•				•	●		•		•		•	•	•	•				•	•	•	•				
157-161.5	4.5	2-1, 100-102		Barren																												●																				
		2-2, 112-114																														●						●														
		2-3, 114-116				●							•				●		•				●	●			•			•		●		•				•	●	•						•						
		2, CC				●							•	•									●	●						●	•	●				●		•	●							●						
208-209	1.0	3-1, 100-102				●							•	•			•								•		•											●								●						
		3, CC				●			•					●									•	●			•			•					●	●	●	●		•	●											
251.5-256.5	4.8	4-2, 30-32			•	●							•	●										●						●		•			●		•	●	•					•								
		4-3, 100-102				●					R•		●	●			●		●				•	●						•		•				•			●	•		•	●	•	•								
		4-4, 130-132				●							•	●			•		•					●	•							•				•			●	●		●	●										
		4, CC				●			●				•	●			•		•					●						●		•			●			•	●	●													
297-304	6.8	5-1, 143-144											●																			●				●		●														
		5-2, 8-10		●	•	●			•				•	●			•		•				●									●			●	•	●	●														
		5-2, 64-66		●	•	●			•				•	●			•	●	•				•	●				•	●	●	●	●	●	●	•	•																
		5-2, 75-77		●	●	●			•				•	●			●	●	●				•						●	●	●	●																				
		5-2, 80-82		●	•	●	•	•	●				•	●			●				●						●																									
		5-3, 90-92			•	●	•	•	●				•	●			●	●					•	●	•		•																									
		5-4, 132-134		●	●	●	●		●				•	●			●						●	●	•		●																									
		5-5, 110-112			•	●	•		●				•	●			●					●	●	●																												
		5, CC				●	•		●				•	●			●					●	●	●																												
330.5-340	9.6	6-0, 15-16		●	●	●	•		●				•	●			•	●					●		•	●																									
		6-1, 50-52				•		•	●				•	●			●					●	●	●																												
		6-1, 87-89			•	●	●	•	●					●			●					●	•																												
		6-2, 75-77	•		•	●	●	•	●				•	●			●						•			●																									
		6-2, 112-114	●			●	•	•	●				•	●			●		●				•	●		●																									
		6-3, 50-52				●	•	•	●				•	●			●	•				●	●																												
		6-3, 130-132		Barren																																															
		6-4, 25-27		•	•	●	•	•	●				•	●			●	●			●		●	●																											
		6-4, 110-112		●	•	●	•	•	●				•	●			●		•		●	●	●	●	●																										
		6-5, 50-52		●	•	•	●	●	●				●	●			●	●	●				●																												
		6-5, 115-117		•	•	•	•	•	●				•	●			●				●																														
		6-6, 30-32				•			•		•						•								●	●																									
		6-6, 130-132		•	•	●	●	●	●		•		•	●			●	●					●																												
		6, CC		•	•	●	●	●	●				•	●			●	●																																	
340-349.5	9.7	7-1, 25-27		●	•	●	•	•	●		●		•	●	•	•	●	•																																	
		7-1, 120-122	●	●	•	●	●	●	●					●	•	•	●	•		●	•	•																													
		7-2, 30-32	•			●	●	●	●		•		●	●			●	•																																	
		7-3, 99-100		•	•	●	•	•	●		●		●	●			●		•																																
		7-3, 108-109	●	•	•	●	•	•	●				●	●	•	•	●		•	●																															
		7-3, 120-122		•	•	•	•	•	•			•		•			●																																		
		7-3, 131-132		●	•	•	•	•	●			●		●			●																																		
		7-4, 20-22		•	•	•	•	•	●		•	●	•	●	●	●	●																																		
		7-4, 131-132		•	•	●	●	●	●		●	●	•	●	●	●	●		●																																
		7-5, 80-82	●	●	●	●	●	●	●			●	•	●			●	•																																	
		7-6, 60-62		●	●	●	●	●	●			●	•	●	●	●	●	●																																	
		7, CC	●	●	●	●	●	●	●		●	●	•	●	●	●	●																																		

TABLE 18
Planktonic Foraminifers and Other Microfossils at Site 374, Cores 8-15

Legend
- • 1 to 3 specimens
- ● 3 to 6 specimens
- ● 6 to 20 specimens
- ● >20 specimens

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	Planktonic Foraminifers: *T.* aff. *quinqueloba*	Planktonic foraminifera recrystallized	*Gg.* aff. *falconensis*	*Gg. nepenthes*	*Gs. obliquus obliquus*	*Gs. obliquus extremus*	*Gr. margaritae*	*Gr. margaritae primitiva*	*S. seminulina*	*S. subdehiscens*	*O. universa*	*Gs. trilobus*	*Gs. elongatus*	*Gr. acostaensis*	*T. quinqueloba*	*Gta. glutinata*	*Gr. scitula*	*Gg. apertura*	*Gr. puncticulata*	*Gq. altispira*	Other Microfossils: Kysts of Algae: *Pachysphaera* sp.	Diatoms	Radiolaria	Sponge spicules	Fish teeth/bones	Zones	Stages
349.5-359	5.5	8-1, 120-122			•		•	●	●				●	●	●	•	●	•	•	•	●	●						*G. margaritae evoluta*	Lower Pliocene
		8-2, 122-124			•		●	●	•				●	●	●	•	●	•	•		●								
		8-3, 20-21			•		●	●	●		•	•	●	●	●	•	●	•	•	•	●								
		8-3, 26-27			•		●	●						•							•								
		8-3, 80-81			•		•	●	●				●	•	•	•		•	•		●								
		8-4, 20-21			•		•	●	●				●	•	•	•		•	•		●								
		8-4, 110-111			●		●	●	●		•	•	●	●	●	●	●	•	•	•	●								
		8, CC			●		●	●	●	•	•	•	●	●	●	●	●	•	•	•	●								
359-368.5	6.1	9-1, 51-52		•	●		●	●	●		•	•	●	●	•	●	●	•	•	•								*G. margaritae*	
		9-1, 148-149		•	●		•	●	●	•		•	●	●	•	•	●	•	•										
		9-2, 33-34		•	●		●	●	●	•			●	●	•	•	●	•	•										
		9-2, 131-132		•	•		●	●	●				●	●		●	●												
		9-3, 7-8		•	●		●	●	●				●	●	●	●	●	•	•										
		9-3, 108-109		•	●		●	●	●	●			●	●	●	●	●	•	•										
		9-4, 125-127		•	●		●	●	●	•	•	•	●	•	●	●	●												
		9, CC	●	•	●	•	●	•	●	•	•		●	●	●	●													
368.5-378	0.7	10-1, 110-112	●	•	●		●	•	●	●	●		●	●	●														
		10, CC	●	•	●	•	●	•	●	●	●	●	•																
378-381.5	2.5	11-1, 90-91		●																								?	
		11-1, 138-139		●																									
		11-2, 20-22		●																									
		11-2, 80-82		●																									
		11-2, 114-116																					•			•			
		11-2, 130-132																											
		11, CC																					•						
381.5-387.5	2.5	12-1, 51-52	•																										Upper Miocene ?
		12-1, 97-98	•																										
		12-2, 120-122																											
		12, CC																											
387.5-392.5	4.1	13-1, 123-124	•																										
		13-2, 20-22																											
		13-3, 103-105	•																										
		13, CC	•																				•						
392.5-397	3.3	14-1, 110-112																											
		14-2, 132-134	•																										
		14, CC	•																				•						
397-406.5	3.1	15-1, 30-32																											
		15-2, 100-102	•																							●			
		15-2, 147-148																											
		15, CC	•																					●	●	●			

TABLE 19
Planktonic Foraminifers and Other Microfossils at Site 375, Cores 1-7

Legend
- • 1 to 3 specimens
- ● 3 to 6 specimens
- ● 6 to 20 specimens
- ● >20 specimens

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	*Gg. decoraperta*	*Gg. praebulloides*	*Gta. glutinata*	*Gs. obliquus*	*Gr. continuosa*	*Gr. acostaensis*	*Gr. obesa*	*Globorotalia* sp.	*G. acquilateralis*	*O. universa*	*O. bilobata*	*Gs. trilobus*	*Gs. sacculifer subsacculifer*	*Gg. juvenilis*	*T. quinqueloba*	*Gq. dehiscens*	*O. suturalis*	*Gg.* aff. *falconensis*	*Gs. subquadratus*	*Gr. scitula*	*Gr. dutertrei*	*Gr. pseudomiocenica*	*Gs. obliquus extremus*	*Gr. humerosa*	*Turborotalita* sp.	*Gs. tyrrhenicus*	*H. siphonifera involuta*	*Gg. nepenthes*	*Gq. altispira*	*Gg. bulloides*	*Gr. mediterranea*	*S. seminulina*	*Gr. margaritae primitiva*	*Gr. margaritae*	*T. quinqueloba lingulata*	*Gs. sacculifer*	*Gg. apertura*	*P.* cf. *nicobarensis*	*Gs. elongatus*	*Gr. puncticulata*	Reworked plank. foram.	Direction of coiling of *G. acostaensis* L. R.	Kysts of algae *Pachysphaera pelagica*	Wood fragments	Shell fragments	Echinoid spines	Fish: teeth/bones	Ostracods + Ammonia	Zones	Stages
137.5-139.5	1.0	1-1, 50-51		•	•	●		•	•		●	●	•	•			●					●		●	●	●	●								•	●	•	●	•	•	•	●								1	Lower Pliocene
		1-1, 60-61				●		●				●		•			●			●		•			●		•			•					•	●	•													2	
		1-1, 126-128															●																										●								Gr. humerosa/Gr. dutertrei	Upper Miocene
		1, CC				•						•					●			•																							●						●			
189.5-194.5	5.0	2-2, 7-8															•																																•		
		2-3, 136-138															•					•		•		•				•	•		•	•									●			•	•		•		
194.5-197.5	0.01	3, CC	Dolomitic limestone																																																
245.5-252	6.5	4-1, 101-103	Dolomitic limestone with Orbulina sp.																																																
		4-1, 136-138				●		●											•		●			●						●																					
		4-2, 40-42				●											●																													●						
		4-2, 124-126				•																•																														
		4-2, 138-140				•								•						•																																
		4-3, 20-22															•																												●							
		4-3, 115-117																																											●				•			
		4-4, 58-60				●	●							●					•	●	•	•								●																		●			
		4-4, 121-123	barren																																																	
		4-4, 130-132															●																																				
		4-5, 22-24	barren																																																	
		4, CC				●	●	●						●			●		•	●		●								•															●							
360-369.5	9.7	5-0, 24-26			•			●									•																																			
		5-0, 35-37	barren																																																	
		5-1, 11-13				•																																							●							
		5-2, 34-36			•	●	●	●				●		●									•	●						●	•	•											●								
		5-2, 100-102				•						•		•			•								●	•	•	•	•																							
		5-3, 100-102				●								●	•		●																																			
		5-4, 8-10	barren																																																	
		5-5, 134-136				●	●	●										•					•		•	•	•																									
		5-6, 77-78				●		●				●		●										●	•																											
		5-6, 106-108				●											●																																			
		5, CC				●	●	●	●			●		●			●				●		•																													
461-470	9.0	6-1, 100-102				●		•				●		●				•		•		•																					●				●					
		6-2, 100-102		•		●								●																													●				●					
		6-3, 120-122				●		•						●					•																								●			•	●	●				
		6-4, 40-42				●								●					•																								●				●					
		6-4, 120-122																																												•						
		6-5, 100-102				•											•																																			
		6-6, 80-82	•		•	●	●	●	●	•	●	●		•		•	●				•																															
565-574.5	9.7	7-1, 9-11				●		●											•		•	•																														
		7-2, 91-92				●											•				•	•																														
		7-3, 65-67			•	●	•	●				●		●	•	•	●			●	•																															
		7-4, 86-88				•											•	•	•																																	
		7-5, 93-95				•								•			●		•																											•							
		7-6, 95-97				•								•				•																												•							
		7, CC	●	•	•	●	●	●	•	●		●	•	•		•	●																																			

Footnotes: 1 *Gr. margaritae evoluta*
2 *Gr. margaritae*

TABLE 20
Planktonic Foraminifers and Other Microfossils at Site 375, Cores 8-13

Legend
- • 1 to 3 specimens
- ● 3 to 6 specimens
- ● 6 to 20 specimens
- ● >20 specimens

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	*C. chipolensis*	*Gg. angustiumbilicata*	*Gg. juvenilis*	*Gg. praebulloides*	*Gta. ambitacrena*	*Gta. glutinata*	*Gta. naparimaensis*	*Gta. unicavus*	*Gs. altiaperturus*	*Gs. subquadratus*	*Gs. trilobus*	*Gr. gr. mayeri/siakensis*	*Gr. minutissima*	*Gr. obesa*	*Gg. altispira*	*Gg. dehiscens*	*Gg. langhiana*	*Gg. falconensis*	*Gg. nepentholdes*	*Gs. bisphericus*	*H. siphonifera praesiphonifera*	*P. glomerosa curva*	*P. transitoria*	*Protentella sp.*	*Gs. diminutus*	*Gr. scitula praescitula*	*Gs. obliquus*	*Gs. subquadratus subelongatus*	*P. glomerosa circularis*	*O. suturalis*	*Gr. archeomenardii*	*O. bilobata*	*Gr. acrostoma*	*Gr. fohsi peripheroronda*	*Gg. foliata*	*O. universa*	*Gr. aff. peripheroacuta*	*Gr. praemenardii*	*Gr. scitula*	*Gs. cf. algeriana*	*H. siphonifera*	*Gg. druryi*	*S. seminulina*	*Gr. gr. menardii*	Reworked plank. foram. (C. + E. + M. inf.)	Radiolaria	Fish teeth/bones	Zones	Stages
			Planktonic Foraminifers																																															Other Microfossils		
622-631.5	9.7	8-0, 16-18										•	•							●									●													•									?	Serravallian
		8-1, 87-89		•									●							•												●											•										
		8-2, 70-72											●							●																							●										
		8-3, 70-72										●		●						•									●								•		●			●			•	●	●		•			
		8-4, 77-79															•															•																						
		8-5, 26-28		●									●	•																		●							●			●												
		8-6, 36-38		●									●		•			●											●			●							•															
		8, CC		•		●		•	•			●					●			●									●			●										●		●										
650.5-660	9.6	9-0, 3-4		●									●	●				•														●							●						●										
		9-1, 15-17		●	•												•	•														•																						
		9-2, 90-92		●				•					●	•				•														•																						
		9-3, 8-10		●	•			•					●	•		●	●	●			•								●			●							●						●										
		9-4, 65-67		●				●					●	●	•		•	●		●												•				●								●	•									
		9-5, 28-30		●				•				●	●		•			●											•			●							•															
		9-6, 98-100		●	•			●					●	●	•	●		●		•			●					●				●		•		●			●	●	●	●												
		9, CC		●	•			●				●		●		●	●	●					•					•	•			●		•	•				●															
675.5-679	3.5	10-1, 135-137		●		●						•	●	•	•	●	●			●	•		●					•				●		•					●															
		10-2, 115-117		●		●		•				•	●		•	•	●		●	●			●					•	•			●		•				•	•															
		10-3, 97-99		●	•			•					●	●		•	●	●	●	●	•		●					●	•			●	•	•	•	●																		
		10-4, 148-150		●	•			●				●	●	●	•	•	●		●	●		●	●					●			●	●	●	•	•																			
733-736	2.5	11-1, 130-132		●	•							●	●	•			•	•		●		●		•				•		●																				•			
		11-1, 144-146	•	●	•							●	●			●	●	●	●	•		●	●	•				•		●																								
		11-2, 70-72		●								●	●		•	●		●	●	●	•	●	●	●	•	•				●																								
		11-2, 145-147	•	●	•	●		•				●	●	•	•	●	●	●	•	●	•	●	●	●	●	•	•	•	•	•																								
		11, CC	●	●	●	●	•	•				●	●	●	•	●	•		•	●	•	●	●	●	●	•	•	●																						•			
792-793	0.1	12, CC	barren																																																	?	
819.5-821.5	0.7	13-1, 132-134	●	●	●	•	•	●	●	●	●	●	●	●	•	•	●	•	●																																	*Gs. altiaperturus/ Gta. dissimilis*	Burdigalian
		13, CC	•																																																		

TABLE 21
Planktonic Foraminifers and Other Microfossils at Site 376, Cores 1-5

Legend
- • 1 to 3 specimens
- • 3 to 6 specimens
- • 6 to 20 specimens
- • >20 specimens
- R: reworked

| Depth Below Sea Floor (m) | Recovery (m) | Sample (Interval in cm) | Gg. apertura | Gg. bulloides | Gg. aff. falconensis | Gg. juvenilis | Gg. calida praecalida | Gg. cf. nepenthes | Gta. glutinata | Gs. elongatus | Gs. obliquus | Gs. obliquus extremus | Gs. ruber (white) | Gs. trilobus | Gr. margaritae | Gr. scitula | H. siphonifera/aequilateralis + involuta | O. universa | O. bilobata | T. quinqueloba | T. quinqueloba lingulata | Turborotalita sp. | Gr. acostaensis | Gr. emeisi | Gs. sacculifer | Gr. puncticulata | S. subdehiscens | S. seminulina | S. sacculifer fistulosus | Gg. altispira | Gg. umbilicata | Gr. hexagona | Gr. humerosa | Gr. bononiensis | S. aff. subdehiscens | Gr. aemiliana | H. pelagica | Gr. crassaformis | Globorotalia sp. | Gg. incompta | Gg. digitata praedigitata | Gs. ruber thick wall | Gr. tosaensis | Gr. truncatulinoides | S. dehiscens | Gr. inflata | Gr. oscitans | H. riedeli | Gg. megastoma cariacoensis | Gr. anfracta | Gs. tenellus | Gr. pachyderma | Gr. bermudezi | Gr. dutertrei sens. lat. | Gr. scitula var. | H. digitata | Gs. ruber (pink) | Gg. calida | Fish: Teeth/bones | Ostracods | Pteropods | Otoliths | Zones | Stages |
|---|---|---

TABLE 22
Planktonic Foraminifers and Other Microfossils at Site 376, Cores 6-15

Legend: • 1 to 3 specimens; ● 3 to 6 specimens; ● 6 to 20 specimens; ● >20 specimens

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	Reworked Plank. foram. Cretaceous to Miocene	*T.* aff. *clarkei* + *T. quinqueloba*	*Gr. conomiozee*/*Gr. mediterranea*	*Streptocheilus* sp.	*Globigerina* + *Globorotalia* spp. ind.	*Gs. obliquus*	*Gs. obliquus extremus*	*Gr. acostaensis*	*T. quinqueloba lingulata*	*Gg.* cf. *decoraperta*	*Gg.* aff. *falconensis*	*Gg. nepenthes*	*Gs. trilobus*	*Gr. scitula*	*S. subdehiscens*	*S. seminulina*	*S. seminulina* Kochi	*Turborotalia* sp.	*Gita. glutinata*	*Gg. juvenilis*	*O. universa*	*Gs. elongatus*	*H. siphonifera*/*acquilateralis*	*Gg. bulloides*	*Gg. umbilicata*	*Gs. sacculifer*	*O. bilobata*	Radiolaria	Ostracods	Kysts of Algae: *Pachysphaera* sp.	*Ammonia* sp.	Fish: Teeth/bones	Rosalina + Bolivina	Sponge spicules	Zones	Stages
			Planktonic Foraminifers																											Other Microfossils								
45.5-55	5.1	6-1 to 6-3, 90				Quaternary																															*G. truncat.*	Quaternary
		6-3, 104-105		●				●	●	•			●	●		•				•	•	•	•		•				●								?	
		6-3, 133-134		●				●	●	●			•	•	●	•	•	•			•	•	●		•			●								*Sphaeroidinellopsis acme*	Lower Pliocene
		6-3, 149-150		●				•	•	•	•	•	●	•	•	•	●	●	•	•	•	•	●		•	•											
		6-4, 12-13		•				•	•	●		•	•	•	•	●	●	●	●	•		•	•														
		6-4, 33-34		●				●	●	●		●	●	●	•	●	●	●	●	•		•	•														
		6-4, 56-57		•				●	●	●			•	•		●	•	●	•			•	●	•	•												
		6-4, 66-67		●				●	●					●	●							•	●														
		6-4, 80-81		●				●	●				•	•	•					•		•	•			●											
		6-4, 83-84		●				●	•				●	•	•					•		•	•			●											
		6-4, 85-86		●				●	●					•				•		•	•	•	●			●											
		6-4, 89-90		●				●	●					•				•		•	•	•	•			●	●										
		6-4, 108-109		●				•	•	●				•	•					•			•								•				●		Upper Miocene	
		6-4, 125-126		●				•	•	●					•					•			•												●			
		6-4, 137-138		●				●	●	•	•		•	•	●	•	•	•		•	•	•	●	•												*Sphaer. acme*	Lower Pliocene
		6-4, 140-141		•				•	•	●		•	•	•	•	•	●	•	●	•	•	•	●	●													
		6, CC		•				•	•	●		●	●	●	•	•	●	●	●	•	•	•	•	•													
55-64.5	2.8	7-1, 39-40		●			●	•	•	●	•																				•			●		?	Upper Miocene
		7-1, 43-44		●			•																										•				
		7-1, 53-54		•																																	
		7, CC		●																																	
64.5-74	4.1	8-1, 110-111		•																																	
		8-2, 61-62																													•		•				
		8-3, 100-101		●																																	
		8, CC	•	•			•																								•		•				
74-83.5	5.8	9-1, 110-111		•			•																								•	•	•				
		9-2, 80-82																													•						
		9-2, 119-121		•		●																									•		•				
		9-3, 3-5																																			
		9-3, 81-83		•																																	
		9-3, 103-105		•																													•				
		9-3, 116-118		•																											•		•				
		9-3, 136-138		●																											•	•	•				
		9-4, 115-116		•																																	
		9, CC		●			●																								•		•				
83.5-93	4.1	10-1, 56-58		•																																?	Upper Miocene
		10-2, 7-9		●																																	
		10-3, 80-82		•																																	
		10, CC			●																																
93-102.5	3.3	11-2, 18-20			•																																
		11, CC		●	•																																
102.5-112	7.6	12-1, 90-92	•	•																										•	•		•				
		12-2, 110-112		•																										•	•						
		12-4, 40-42																																			
		12-5, 17-19																																			
		12, CC	●	•	•																																
112-121.5	5.3	13-1, 125-127		•																										•							
		13-2, 5-7		•																																	
		13-3, 100-102	•	•																																	
		13-4, 120-122		•																											•	•					
		13, CC		•																											•	•					
121.5-131	0.2	14, CC		●			•																							•	•				•		
131-140.5	3.6	15-3, 130-131	●	●			•																							•							

TABLE 23
Planktonic Foraminifers and Other Microfossils at Hole 378, Core 1-11

Legend
- • 1 to 3 specimens
- ● 3 to 6 specimens
- ● 6 to 20 specimens
- ● >20 specimens
- R: reworked

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	Gg. nepenthes	Gia. glutinata	Gs. elongatus	Gs. obliquus obliquus	Gs. trilobus	Gr. acostaensis	Gr. margaritae primitiva	Gr. margaritae	Gr. scitula	O. universa	T. quinqueloba	Turborotalita sp. A	Gg. decoraperta	Gs. ruber	Gg. aff. falconensis	Gs. obliquus extremus	T. quinqueloba lingulata	Gr. puncticulata	Gg. apertura	Gs. sacculifer	S. seminulina	S. subdehiscens	H. siphonifera/aequilateralis	Gq. cf. altispira	S. dehiscens immatura	Gg. bulloides	Gr. bononiensis	Gr. aemiliana	Gr. crassaformis	Grs. hexagona	Gg. umbilicata	Gs. ruber, thick wall	Gr. pachyderma/incompta	Gg. cf. megastoma	S. dehiscens	Gr. inflata/oscitans	Gg. praecalida	Gg. praedigitata	Gs. tenellus	H. riedeli	T. iota	Gr. anfracta	Gr. bermudezi	Echinoid spines	Fish teeth/bones	Ostracods	Shell fragments	Sponge spicules	Radiolaria	Diatoms	Zones	Stages
			Planktonic Foraminifers																																											Other Microfossils								
84-93.5	2.3	1-1, 120-122			●							●	●			•												•						●	●			●	•		•	●		●	•	●			●				G. truncatulinoides	Quaternary
		1-2, 9-11			●							●	●															●							●			●									●			●				
		1-2, 95-97			●							●	●															●							●		●	●									●		•	●				
		1, CC			●						•	●	●			•												●					●		●			●		•		●		•	•	●		•					
93.5-103	6.3	2-2, 70-72		•	●							●	●												●			•										•															
		2-3, 68-70			●							●	●												•			●					●						•															
		2-4, 70-72			●							●	●						•									●							●			●		•		•												
		2-5, 100-102		•	●							●	●				•											●								●		●						•										
		2-5, 140-142		●	●						•	●	●				•		•									●					●			●		●	●															
		2, CC			●						•	●	●				•								●			●					●	●	●	•		•					•	•	•			•						
103-112.5	4.2	3-1, 95-97			●						•	•	●						•									●					●					●	●															
		3-2, 80-82			●						•		●															●					●			●						●	•											
		3-3, 30-32		•	•						•	●	●			●			•									●								●		●							•										
		3-3, 118-120			•																											•			●			●												●				
		3-3, 140-142		•	●						•	●	●						•									●							●			●		•															
		3, CC		•	●						•	●	●															●					•		●			●		•	•	•	•	•				•						
122-131.5	3.0	5-1, 124-126			●	•					•	●	●			•	•											●					•			•		●	●							•			•	●				
		5-2, 137-139			●						•	●	●															●							●			●																	
		5-2, 143-145			●	•					•		●			●	●																		●																			
		5, CC			●						•		●						•																●				●																
141-150.5	3.3	6-1, 135-137			•							•	●				●		•									●									●									•		•						G. inflata ?	Upper Pliocene
		6-2, 40-42		•	●	•						•	•				●											●																				•							
		6-2, 125-127		•	●	•					•	•	•						•									●																				•							
		6-3, 30-32		•	●	•					•	•			•		●		•									●							●	●												•							
		6-3, 120-122		•	●	•	•					●	●									•			●			●			•	•	•	•	•	●												•							
		6, CC		•	●					R•		●	●					•	•	R•					●			●			•		•	•	•																			
169.5-179	7.2	7-1, 100-102			●							●		•			●											●	●																		•		•					
		7-2, 80-82			●	•						●	●						•		●				•				•																									
		7-3, 30-32			●	•						●	●				●		•		●							●					●															•							
		7-3, 127-129		•								●	●				●			•						•																						•							
		7-4, 20-22		•	●							●	●				●		•									●																											
		7-4, 94-96		•	●	•						•	•			●	●											●	•	•	●	●																							
		7-5, 100-102			●	•						●	●				●	•		•								•			•																	•							
		7, CC		•	●	•						●	•		•		●	•	•	•				•		•		•			•																	•							
217-226.5	3.2	8-1, 30-32			●	•						●	•			●	•	•	•						•			•	•		●	•																		●				
		8-1, 127-129		•	●		•					●	•			●	●		•							•																									●	●			
		8-2, 10-12		•	•	•	●					●	•	•		●			•		●	●							●	•	•																•	•				●	●			
		8-2, 118-120		•	•	•	●				•	•	•			•	•													•																			•				•			
		8, CC		•	•	•	•				•	•	•	•	•	●	•	•	•		•							•	●	•	•	•	●														•	•			•				
274-283.5	0.1	9, CC		•	•	•	•	•				•	•				●		•	●	●	•	•	•																						•	•	•						S. subdehiscens	
283.5-292	0.1	10, CC		●	•	•	•	•	•	•	•	●	•	•	•		●	•	•	●							•	•																											
302.5-312	4.7	11-1, 146-148		•	●	•	●	•	•	•	•	•	•	•	•		●	●	•	●	●	•	•		•	•																					●		•					G. margaritae evoluta	Lower Pliocene
		11-2, 110-112		•	●	•	●	•	●	•	•	•	•	•	•	●	●	●	•	●	●	•	•	•	•	•	•																						•	●					
		11-3, 25-27		•	●	•	●	•	•	•	•	•	•	•	•	●	●	•	•	●	●	•																									●	•						
		11-3, 120-122		•	●	•	●	•	●	•	•	●	●	•	•	•	●	•	•	●																													•							
		11-4, 30-32	•	•	•	●	●	•	•	•	•	●	●	•	•	•	●	•	●																													•						G. margaritae	
		11-4, 144-146	●	●	•	•	●	•	•	•	•	●	●	•	•	•	•	•																													•							
		11, CC	●	•	•	●	●	●	•	●	•	•	●	•																																				•						

TABLE 24
Planktonic Foraminifers and Other Microfossils at Site 378A, Cores 1-4

Legend: 1 to 3 specimens; 3 to 6 specimens; 6 to 20 specimens; >20 specimens; C: contamination

Depth Below Sea Floor (m)	Recovery (m)	Sample (Interval in cm)	*Gg. decoraperta*	*Gg.* aff. *falconensis*	*Gg. nepenthes*	*Gs. obliquus obliquus*	*Gs. obliquus extremus*	*Gs. trilobus*	*Gta. glutinata*	*Gta. naparimaensis*	*Gta. ambitacrena*	*Gta. uvula*	*Gr. margaritae primitiva*	*Gr. margaritae*	*O. universa*	*T. quinqueloba*	*Turborotalita* sp. A	*Gs. elongatus*	*Gg. apertura*	*S. subdehiscens*	*S. seminulina*	*Gr. acostaensis*	*Gr. scitula*	*Gr. puncticulata*	*T. quinqueloba lingulata*	*Gg. sallentina*	*H. siphonifera/aequilateralis*	*Gq. altispira*	*Gg. bulloides*	*Gs. sacculifer*	*Gs. ruber*	*Gs. tenellus*	*Gg. praecalida*	*Gr. inflata*	*Gr. oscitans*	*Gr. humerosa/dutertrei*	*H. digitata*	*H. riedeli*	*Turborotalita* sp. B	*Gr. bermudezi*	*Gr. pachyderma*	*Gr. anfracta*	*T. iota*	*T. clarkei*	*Gr. truncatulinoides*	Echinoid spines	Shell debris	Fish teeth/bones	Ostracods	Pteropods	Zones	Stages
46-55.5	7.2	1-1, 130-132							•			•			•	•		•					•						•		•	•		•	•	•		•				•		•		•	•		•	•		G. truncatulinoides	Quaternary
		1-2, 87-89							•						•	•		•					•						•		•	•		•	•	•		•			•	•		•		•	•						
		1-3, 120-122													•	•		•					•						•		•	•		•	•	•		•						•		•	•						
		1-4, 100-102							•			•			•	•		•					•		•				•		•	•		•	•	•		•				•	•	•		•	•		•				
		1-5, 60-62													•	•		•					•						•			•		•		•		•			•	•	•			•	•		•				
		1, CC							•			•			•	•		•					•		•		•		•	•	•	•	•	•	•	•	•	•	•			•	•				•	•					
293-302.5	9.5	3-0, 112-114		•		•	•	•						•	•	•	•	•	•			•	•	•				•																									
		3-0, 140-142		•		•	•	•				•			•	•		•	•	•	•								•																		•		•	•			
		3-1, 7-9		•		•		•				•		•	•	•		•	•			•	•	•	•		•	•	•	•																	•		•	•			
		3-1, 100-102		•		•		•	•					•	•	•	•	•	•	•	•	•	•	•	•																													
		3-2, 90-92		•		•	•	•	•			•		•	•	•		•	•			•	•	•			•	•	•																								
		3-3, 4-6		•		•	•	•	•					•	•	•	•	•	•	•	•	•	•	•			•																				•		•				
		3-3, 90-92		•		•	•	•	•			•		•	•	•	•	•	•		•	•	•	•	•																						•	•	•	•			
		3-4, 100-102		•		•		•	•			•	•	•	•	•	•	•	•			•	•	•	•		•																				•			•		G. margaritae evoluta	Lower Pliocene
		3-5, 60-62		•	•	•	•	•	•			•		•	•	•	•	•	•			•	•	•	•		•																				•		•	•			
		3-6, 30-32		•	•	•	•	•	•			•	•	•	•	•	•	•				•	•	•	•																						•		•	•			
		3-6, 120-122		•		•	•	•	•			•	•	•	•	•	•	•			•	•	•	•	•	•																					•		•	•			
		3-6, 134-136														•	•	•						•																										•			
		3-6, 148-150	•	•		•	•	•	•	•	•	•		•	•	•	•	•	•	•	•																										•		•	•			
		3, CC	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•			•	•	•																										•			G. margaritae	
302.5-312	1.5	4-1, 1-2	•	•		•	•	•	•	•		•	•	•	•	•	•	•	•	•	•			C•																							•		•			
		4-1, 4-5	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•																														•		•			

TABLE 25
Biostratigraphic Distribution of Benthic Foraminifers at Site 371

Epoch	Quaternary					Late Pliocene					Early Pliocene		
Stage/Zone						M-Pl 6	M-Pl 5		M-Pl 4		M-Pl 2-3		M-Pl 2
Sample / Species	1-3, 120	1-5, 110	1-6, 90	1, CC	2-1, 45	2, CC	3, CC	4-3, 110	4, CC	5, CC	6, CC	7, CC	8-1, 52
Anomalinoides badensis								•					
A. pseudogrosserugosa					•								
Articulina tubulosa	•	•	•	•	•		•	•					
Astrononion umbilicatulum					•			•					
Bolivina alata							•			•			
B. arta							•			•			
B. catanensis					•			•					
B. compacta					•			•					•
B. dilitata								•					
B. pseudoplicata					•			•					
B. spathulata								•					
B. subaenariensis		•											
Bulimina aculeata			•			•		•					
B. alazanensis									•				
B. inflata								•	•				
Cassidulina crassa			•						•				
C. crassa, f. minima								•					
C. laevigata	•	•	•			•		•	•				
C. minuta								•					
C. subglobosa					•								•
Chilostomella oolina		•	•			•							
Cibicides lobatulus							•						
C. pachyderma			•		•	•	•	•	•			•	
C. wuellerstorfi				•									
Cibicidoides bradyi					•			•					
C. kullenbergi					•		•	•					•
C. robertsonianus												•	
Discorbis aff. *D. obtusa*					•								
D. parkerae								•					
D. rosacea					•								
Eggerella bradyi		•				•		•					
Elphidium spp.										•	•		
Epistominella exigua								•					
Eponides pusillus			•	•			•			•			
E. schreibersii								•	•			•	•
Fursenkoina complanata		•						•	•				
Globobulimina affinis			•			•			•				
G. spp.					•								
Guttulina spp.		•											
Gyroidina laevigata					•								
G. orbicularis	•												•
G. soldanii			•				•		•				
G. umbonata								•					
Karreriella bradyi						•	•	•					
Lenticulina spp.			•					•		•			
Loxostoma normale								•					
Melonis affine					•								
M. barleeanum							•		•				
M. soldanii								•	•				
Neoconorbina terquemi								•					
Nonion scaphum								•					
Nonionella sp. A								•					
Nuttallides rugosus convexus								•					
Oolininae		•	•	•	•	•	•	•					
Oridorsalis umbonatus					•			•	•	•	•	•	•
Orthomorphina spp.												•	
Pleurostomella alternans			•										
Pullenia bulloides		•											
Pyrgo depressa		•	•	•									
P. elongata		•											
Quinqueloculina lamarckiana	•												
Q. spp.	•	•	•	•		•	•						
Robertina translucens	•	•	•										
Sigmoilina tenuis						•							
Sigmoilopsis schlumbergeri							•						
Siphonina reticulata								•		•	•	•	
Sphaeroidina bulloides						•							
Stilstomella antillea					•			•					
Trifarina angulosa pauperata					•			•					
Valvulineria complanata		•					•	•		•			

TABLE 26
Biostratigraphic Distribution of Benthic Foraminifers at Site 372

Epoch	Quat.			Late Pliocene					? E. Pliocene																								
Stage/Zone				M-Pl 6		M-Pl 5			M-Pl 3-4									Messinian															Tortonian
Species / Sample	1-1, 125	1-3, 40	1, CC	2-1, 145	2-2, 140	2, CC	3-1, 130	3-2, 40	3-3, 62	3, CC	4-1, 60	4-1, 70	4-1, 128	4-2, 60	4-2, 90	4, CC	8, CC	9-1, 113	9-1, 120	9-1, 142	9-2, 0	9-2, 28	9-2, 41	9-2, 60	9-2, 97	9-2, 100	9-2, 137	9-3, 20	9-3, 40	9-3, 120	9-4, 120
Ammonia beccarii																		•	•	•	•	•	•									
Anomalina cicatricosa																																
Anomalinoides badensis		•																									•					•
A. flinti	•				•																								•			•
A. pseudogrosserugosa	•	•		•	•																											
Articulina tubulosa	•		•											•		•																
Asterigerinata mamilla																					•											
Astrononion umbilicatulum								•	•	•	•	•	•	•	•	•										•						
Bigenerina nodosaria									•																	•						
Bolivina alata																																
B. albatrossi							•		•		•	•	•		•						•							•				•
B. arta											•					•			•		•		•			•						
B. beyrichi																																•
B. catanensis	•	•							•		•	•	•	•	•	•			•		•					•			•			•
B. compacta				•	•		•	•		•	•	•	•	•	•	•		•	•	•	•					•						
B. dilitata										•			•								•											•
B. globulosa					•					•					•																	•
B. hebes														•												•			•			
B. incrassata														•	•				•		•											
B. parvula										•			•		•	•			•		•					•			•			
B. placentina														•	•		Barren				•											
B. pseudoplicata	•	•			•				•	•	•		•	•	•											•			•			
B. pseudopunctata		•																	•													
B. reticulata										•	•	•	•	•	•	•		•	•					•	•	•	•	•	•			
B. silvestrina																•																
B. cf. *B. simpsoni*																																•
B. spathulata		•									•	•	•	•	•	•		•		•	•				•				•			
B. subaenariensis											•		•	•	•																	
B. sublobata														•	•					•												•
B. subspinescens										•												•										
B. cf. *B. thalmani*													•					•			•											
B. variabilis	•						•				•	•	•			•				•	•	•	•	•	•		•	•	•	•		
Bolivinita concavomoenia	•									•		•	•																			
Bolivinopsis compta																																•
Bulimina aculeata		•	•								•										•	•		•	•			•				•
B. affecta									•	•	•	•	•											•	•		•			•		
B. alazanensis																				•						•	•	•				
B. barbata																																
B. buchiana							•																		•	•						
B. costata																											•			•		
B. gibba																																
B. inflata		•							•			•						•		•			•	•	•	•				•		
B. marginata			•								•																					
B. semicostata											•	•	•			•		•	•	•	•	•		•	•		•	•	•	•	•
Cassidulina crassa									•														•									
C. crassa. f. minima		•								•			•	•	•	•			•										•			
C. braziliensis	•													•	•	•																•
C. laevigata	•	•		•	•					•	•	•	•	•	•	•		•	•		•					•			•			
C. minuta		•		•			•					•	•		•	•			•		•					•			•			•
C. subglobosa	•	•			•		•	•		•	•	•	•		•	•			•		•					•	•		•			•
Chilostomella oolina																																
Cibicides aknerianus											•					•								•					•			
C. austriacus																								•								
C. lobatulus							•	•	•		•			•																		
C. pachydermus			•	•	•		•	•			•				•														•			•
C. wuellerstorfi							•	•			•															•	•		•			•
C. spp.	•			•	•			•		•		•	•		•				•		•			•	•	•						•
Cibicidoides bradyi							•	•		•	•			•							•				•	•			•			•
C. kullenbergi		•			•		•	•	•		•		•	•							•			•	•	•		•				•
C. cf. *C. kullenbergi*				•			•				•																•		•			
C. robertsonianus							•	•	•																				•			
Dentalina communis															•														•			•
Discorbis aff. *D. columbiensis*													•			•																
D. globularis																											•					
D. aff. *D. obtusa*															•																	•
D. parkerae							•			•			•																			
D. rosacea		•			•																											
Eggerella bradyi			•		•		•												•					•								•
Ehrenbergina carinata																																
Elphidium spp.		•			•								•		•																	
Epistominella exigua						•				•		•	•		•	•			•		•					•			•			•
Eponides polius																																
E. pusillus	•	•		•	•		•	•		•			•		•	•			•		•											•
E. schreibersii									•	•	•														•							
Fursenkoina complanata										•									•													
F. spp.		•								•	•		•			•					•								•			•
Gavelinopsis praegeri																																
Globobulimina affinis						•				•																						
G. aff. *G. pseudospinescens*								•																								
G. spp.									•																							•

TABLE 26 – *Continued*

Epoch	Quat.			Late Pliocene					? E. Pliocene					Late Miocene																		
Stage/Zone				M-Pℓ 6		M-Pℓ 5			M-Pℓ 3-4					Messinian												Tortonian						
Species / Sample	1-1, 125	1-3, 40	1, CC	2-1, 145	2-2, 140	2, CC	3-1, 130	3-2, 40	3-3, 62	3, CC	4-1, 60	4-1, 70	4-1, 128	4-2, 60	4-2, 90	4, CC	8, CC	9-1, 113	9-1, 120	9-1, 142	9-2, 0	9-2, 28	9-2, 41	9-2, 60	9-2, 97	9-2, 100	9-2, 137	9-3, 20	9-3, 40	9-3, 120	9-4, 120
Guttulina spp.			•	•									•																		
Gyroidina altiformis				•	•						•																				•
G. delicata																													•		
G. laevigata					•																										•
G. lamarckiana									•	•				•	•	•															
G. orbicularis		•	•			•					•																				•
G. soldanii								•					•											•	•	•		•			
G. umbonata										•		•	•	•	•	•															•
Hanzawaia boueana						•	•	•		•	•	•	•	•		•			•		•					•	•		•		•
Hyalinea balthica	•									•					•	•															
Karreriella bradyi			•	•	•	•	•	•																•		•	•				
Lagenonodosaria scalaris			•												•																
Lenticulina spp.		•			•				•			•	•						•		•			•		•			•		•
Loxostoma normale											•		•																		•
Martinottiella communis			•																												
Melonis affine											•		•	•	•	•									•						
M. barleeanum		•	•		•	•	•	•	•		•													•	•	•	•	•			•
M. soldanii						•	•	•																							•
Neobulimina sp.										•		•			•																
Neoconorbina terquemi											•				•																
Nodosaria spp.								•	•										•										•		•
Nonion depressulus																								•							
N. scaphum																															
Nonionella sp. A																															
Nuttallides rugosus convexus	•						•		•	•		•			•						•					•			•		•
N. umboniferus												•		•	•	•		•	•												
Oolininae	•	•			•		•	•	•	•	•	•	•	•	•						•						•				•
Oridorsalis umbonatus		•		•	•		•	•	•	•	•				•				•					•	•	•			•		•
Orthomorphina exilis											•	•	•																		•
O. pupoides															•																
O. raphana											•																				
O. sp.			•	•		•			•			•		•	•				•		•					•	•		•		•
Osangularia cultur																															
Planulina ariminensis	•																														
Pleurostomella acuminata											•	•	•	•	•	•								•	•	•			•		•
P. alternans									•		•	•	•	•										•		•	•				•
P. bierigi											•		•												•						
P. spp.																					•					•					•
Pseudoclavulina crustata																															
Pullenia bulloides								•	•		•				•											•					•
P. multilobata																									•						
P. osloensis					•																										
P. quinqueloba									•						•			•						•		•					•
P. salisburyi											•		•		•									•							
P. subcarinata													•																•		
Pyrgo depressa		•						•																							
P. elongata					•			•																							
Quinqueloculina lamarckiana								•			•																				
Q. venusta																															
Q. spp.			•	•	•				•																		•				•
Rectouvigerina royoi																															
Robertina translucens	•																														
Seabrookia earlandi																															
Sigmoilina distorta																													•		
Sigmoilopsis schlumbergeri			•	•	•		•	•	•	•														•					•		
Sigmoilina tenuis			•							•					•																
Siphonina reticulata					•			•	•	•	•		•		•						•					•			•		
S. tubulosa																			•												
Sphaeroidina bulloides	•			•																											
Spiroloculina caniculata	•								•		•																				
Stilostomella cf. *S. annulifera*											•		•														•				•
S. antillea									•		•	•	•	•	•	•															•
Trifarina angulosa angulosa	•			•								•	•						•							•			•		
T. angulosa pauperata		•									•		•	•	•	•								•							
T. bradyi											•			•	•				•		•					•			•		•
Triloculina tricarinata				•																											
Uvigerina auberiana			•																								•	•			
U. barbatula																															
U. hispida								•						•										•		•	•				
U. laevis																•															
U. longistriata				•																				•	•						
U. mediterranea			•					•																							
U. mioindex													•																		
U. peregrina																										•					
U. peregrina dirupta					•				•																						
U. proboscidea															•																
U. rutila							•	•	•		•			•										•		•					
Valvulineria complanata		•								•	•	•	•	•					•							•			•		•
Vulvulina pennatula										•															•	•					

TABLE 26 – *Continued*

Epoch	Late Miocene																															
Stage/Zone	Tortonian																															
Sample / Species	9, CC	10-1, 130	10-2, 130	10, CC	11-1, 140	11-2, 120	11-3, 80	11, CC	12-3, 80	12-4, 30	12-5, 120	12-6, 120	12, CC	13-1, 110	13-2, 20	13-3, 80	13-4, 80	13-5, 120	13-6, 120	13, CC	14-2, 80	14-4, 70	14-6, 125	14, CC	15, CC	16-6, 120	16, CC	18-4, 120	18, CC	19, CC	21-3, 140
Ammonia beccarii																																
Anomalina cicatricosa																																
Anomalinoides badensis		•	•		•	•									•				•	•				•		•		•				
A. flinti		•				•		•				•		•		•		•	•				•									
A. pseudogrosserugosa						•																										
Articulina tubulosa			•																													
Asterigerinata mamilla																																
Astrononion umbilicatulum			•	•	•	•			•			•			•		•		•							•		•				
Bigenerina nodosaria		•			•			•																								
Bolivina alata																																
B. albatrossi					•					•	•							•			•	•										•
B. arta														•					•													
B. beyrichi																																
B. catanensis	•	•	•	•	•	•	•				•	•		•	•	•	•	•	•		•	•				•						
B. compacta		•	•	•	•	•	•		•	•	•	•		•	•	•		•	•				•									
B. dilitata				•										•																		
B. globulosa																					•											
B. hebes		•				•						•																				
B. incrassata			•						•						•																	
B. parvula		•	•	•								•		•		•	•	•	•		•											•
B. placentina																																
B. pseudoplicata		•		•	•	•	•		•	•	•	•		•		•		•	•		•		•			•						•
B. pseudopunctata							•														•											
B. reticulata		•	•	•	•	•	•		•	•	•	•		•	•	•		•	•		•	•	•	•		•		•		•		•
B. silvestrina																		•														
B. cf. *B. simpsoni*		•	•	•					•						•		•		•		•											
B. spathulata	•	•	•		•	•	•		•	•	•	•		•	•		•	•	•		•	•	•	•		•		•				
B. subaenariensis					•		•	•	•			•				•	•			•			•		•							
B. sublobata			•						•						•		•															
B. subspinescens	•				•																											
B. cf. *B. thalmani*				•		•	•	•					•					•								●						
B. variabilis	•	•	•	•	•	•	•	•	•	•					•			•	•													
Bolivinita concavomoenia		•											•						•							●						
Bolivinopsis compta		•	•																													
Bulimina aculeata					•	•			•			•	•	•											•	●	•					•
B. affecta			•	•	•																			•								
B. alazanensis			•		•		•	•				•			•				•	•		•		•	●							
B. barbata																																
B. buchiana																		•														
B. costata			•																													
B. gibba																			•													
B. inflata		•	•	•			•			•			•		•											•						
B. marginata																																•
B. semicostata	•	•	•	•	•			•	•	•			•											•		●		•		•		•
Cassidulina crassa																																
C. crassa. f. minima		•	•	•	•	•	•		•	•	•			•	•	•	•	•	•		•	•	•			•		•				
C. braziliensis			•			•	•																									
C. laevigata			•	•		•			•	•	•	•		•	•	•		•	•		•	•	•					•				•
C. minuta		•	•	•	•	•	•		•	•	•	•		•	•	•	•	•	•		•	•	•			•		•				•
C. subglobosa		•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•		•				•
Chilostomella oolina					•																											
Cibicides aknerianus		•		•			•	•	•	•		•	•	•		•										•		•				
C. austriacus																																
C. lobatulus											•							•	•		•	•	•									
C. pachydermus		•	•	•		•	•	•	•	•	•	•	•		•	•	•		•		•	•	•	•		•						•
C. wuellerstorfi		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•		•		•				•
C. spp.		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•					•		•				•
Cibicidoides bradyi		•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•		•		•				•
C. kullenbergi		•	•	•		•	•	•		•	•	•	•	•	•	•		•	•		•	•				•		•				•
C. cf. *C. kullenbergi*				•							•	•		•				•			•	•		•				•				
C. robertsonianus																•				•	•	•	•									
Dentalina communis					•	•		•								•																•
Discorbis aff. *D. columbiensis*																																
D. globularis																																
D. aff. *D. obtusa*																																
D. parkerae																																
D. rosacea																																
Eggerella bradyi													•		•	•										•						
Ehrenbergina carinata								•					•		•																	
Elphidium spp.																																
Epistominella exigua		•	•		•	•	•		•	•		•		•	•	•	•	•	•		•	•	•			•		•				
Eponides polius		•	•																													
E. pusillus	•		•	•	•	•	•		•	•	•	•		•	•	•	•	•	•		•	•	•			•		•				
E. schreibersii																																
Fursenkoina complanata			•	•	•	•	•		•	•		•		•	•		•	•	•													
F. spp.		•													•											•						
Gavelinopsis praegeri																																
Globobulimina affinis																	•	•									•					
G. aff. *G. pseudospinescens*																																
G. spp.																																•

TABLE 26 – *Continued*

Epoch	Late Miocene																													
Stage/Zone	Tortonian																													
Sample / Species	9, CC	10-1, 130	10-2, 130	10, CC	11-1, 140	11-2, 120	11-3, 80	11, CC	12-3, 80	12-4, 30	12-5, 120	12-6, 120	12, CC	13-1, 110	13-2, 20	13-3, 80	13-4, 80	13-5,120	13-6, 120	13, CC	14-2, 80	14-4, 70	14-6, 125	14, CC	15, CC	16-6, 120	16, CC	18-4, 120	18, CC	19, CC	21-3, 140
Guttulina spp.											•		•	•	•							•	•			•		•			•
Gyroidina altiformis				•		•	•	•	•	•	•	•	•	•	•	•	•	•	•		•			•		•					•
G. delicata			•		•														•												
G. laevigata							•	•	•					•	•									•		•		•			•
G. lamarckiana					•		•											•													
G. orbicularis		•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•	•			•					•
G. soldanii								•						•					•							•	•	•			•
G. umbonata		•	•	•			•												•												
Hanzawaia boueana	•	•	•	•	•	•		•								•												•			•
Hyalinea balthica																					•										
Karreriella bradyi				•				•					•	•	•	•					•			•		•	•				•
Lagenonodosaria scalaris										•	•					•		•	•			•	•			•					
Lenticulina spp.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•		•	•	•		•		•			
Loxostoma normale																					•										
Martinottiella communis																															
Melonis affine					•	•							•																		
M. barleeanum	•	•	•	•		•	•	•	•	•		•		•		•	•	•	•		•	•		•	•	•	•	•	•	•	•
M. soldanii	•			•	•												•			•		•									•
Neobulimina sp.						•			•								•	•										•			
Neoconorbina terquemi																															
Nodosaria spp.				•	•	•	•		•	•	•	•	•	•	•		•		•	•						•		•			•
Nonion depressulus											•																				
N. scaphum																					•		•								
Nonionella sp. A.					•																										
Nuttallides rugosus convexus				•	•						•	•		•	•	•		•	•		•		•			•					
N. umboniferus					•		•		•		•	•		•			•	•	•		•	•	•			•					•
Oolininae	•	•	•		•	•	•		•	•	•	•	•	•	•	•	•	•	•		•	•	•			•		•			•
Oridorsalis umbonatus		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			•		•	•		•
Orthomorphina exilis		•	•		•	•										•	•	•	•		•	•	•			•		•			
O. pupoides																															
O. raphana																															
O. sp.	•	•	•	•	•	•	•				•		•	•	•		•	•	•		•	•	•								
Osangularia cultur		•					•		•			•	•	•	•	•	•	•													
Planulina ariminensis																															
Pleurostomella acuminata		•	•	•	•	•	•		•		•	•				•	•	•	•		•	•	•			•		•			•
P. alternans	•	•		•	•	•			•			•								•				•		•	•				
P. bierigi					•				•				•		•																
P. spp.						•	•					•		•	•																
Pseudoclavulina crustata													•	•	•	•							•								
Pullenia bulloides				•					•	•			•	•	•	•		•	•	•		•		•	•	•	•	•			•
P. multilobata				•	•					•		•			•	•	•	•	•		•	•		•				•			•
P. osloensis																	•														
P. quinqueloba		•		•	•	•	•					•				•	•	•	•	•	•		•			•		•			•
P. salisburyi											•	•		•	•	•		•	•	•											
P. subcarinata						•								•	•	•										•					
Pyrgo depressa															•		•			•							•				
P. elongata																															
Quinqueloculina lamarckiana																															
Q. venusta																				•						•					
Q. spp.	•								•							•			•												
Rectouvigerina royoi															•														•		
Robertina translucens																															
Seabrookia earlandi			•	•					•			•			•			•	•		•		•			•		•			
Sigmoilina distorta																															
Sigmoilopsis schlumbergeri			•	•		•	•	•	•			•	•	•	•			•	•	•					•		•	•			
Sigmoilina tenuis						•									•																•
Siphonina reticulata	•			•			•	•			•		•	•		•						•	•	•			•			•	•
S. tubulosa							•		•					•					•												
Sphaeroidina bulloides				•					•				•	•	•	•	•		•							•					
Spiroloculina caniculata																		•													
Stilostomella cf. *S. annulifera*		•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•			•	•	•			•
S. antillea		•	•	•	•	•	•		•		•					•	•	•	•		•	•	•			•		•			•
Trifarina angulosa angulosa			•	•	•	•	•		•			•		•	•	•			•		•	•				•					•
T. angulosa pauperata									•	•	•			•	•		•	•	•		•	•	•					•			•
T. bradyi		•			•	•			•		•	•		•	•	•		•	•		•	•	•	•		•		•			
Triloculina tricarinata																															
Uvigerina auberiana	•			•						•											•				•		•				
U. barbatula																															
U. hispida		•		•			•	•	•			•	•	•					•	•	•						•		•		•
U. laevis																															
U. longistriata								•					•																		
U. mediterranea																															
U. mioindex																															
U. peregrina																															
U. peregrina dirupta																															
U. proboscidea								•					•																		
U. rutila													•																		
Valvulineria complanata											•			•			•					•	•			•					
Vulvulina pennatula				•																											

Epoch: Middle Miocene; Stage/Zone: Serravalian

TABLE 26 – *Continued*

Epoch	Middle Miocene								Early Miocene																
Stage/Zone	Langhian								Burdigalian																
Species / Sample	24, CC	26, CC	27, CC	28, CC	29, CC	30-4, 103	30, CC	31, CC	32, CC	33, CC	34, CC	35, CC	36, CC	37, CC	38-4, 75	38, CC	39, CC	40, CC	41, CC	42, CC	43, CC	44-5, 18	44, CC	45, CC	46, CC
Ammonia beccarii																									
Anomalina cicatricosa																									
Anomalinoides badensis																								Barren	
A. flinti									•																
A. pseudogrosserugosa																									
Articulina tubulosa																									
Asterigerinata mamilla																									
Astrononion umbilicatulum																									
Bigenerina nodosaria																									
Bolivina alata													•		•				•						
B. albatrossi																									
B. arta	•			•	•				•				•			•			•						
B. beyrichi																									
B. catanensis	•					•									•								•		
B. compacta	•																						•		
B. dilitata	•																								
B. globulosa																									
B. hebes																									
B. incrassata																						•			
B. parvula																									
B. placentina																									
B. pseudoplicata	•																					•			
B. pseudopunctata																									
B. reticulata	•			•												•						•			
B. silvestrina																									
B. cf. *B. simpsoni*																									
B. spathulata																									
B. subaenariensis									•														•		
B. sublobata	•					•																			
B. subspinescens					•																				
B. cf. *B. thalmani*					•				•		•														
B. variabilis					•	•		•	•		•			•		•									
Bolivinita concavomoenia					•	•					•														
Bolivinopsis compta																									
Bulimina aculeata		•			•				•					•				•							
B. affecta				•	•	•			•																
B. alazanensis		•			•				•		•				•		•					•			
B. barbata									•																
B. buchiana																									
B. costata																									
B. gibba																									
B. inflata		•												•		•									
B. marginata																									
B. semicostata			•			•			•							•		•	•	•	•				
Cassidulina crassa		•	•									•													
C. crassa. f. minima	•					•									•							•			
C. braziliensis	•					•									•							•			
C. laevigata	•					•																			
C. minuta	•					•																•			
C. subglobosa	•	•			•	•								•	•				•			•			
Chilostomella oolina																									
Cibicides aknerianus	•																								
C. austriacus																									
C. lobatulus																									
C. pachydermus																									•
C. wuellerstorfi	•					•																			
C. spp.	•					•									•							•			
Cibicidoides bradyi	•					•																			
C. kullenbergi	•					•																			
C. cf. *C. kullenbergi*	•																								
C. robertsonianus																									
Dentalina communis	•																					•			
Discorbis aff. *D. columbiensis*																									
D. globularis																									
D. aff. *D. obtusa*																									
D. parkerae																									
D. rosacea																									
Eggerella bradyi						•									•							•			
Ehrenbergina carinata																									
Elphidium spp.																									
Epistominella exigua	•					•									•										
Eponides polius																									
E. pusillus	•					•									•										
E. schreibersii																									
Fursenkoina complanata																									
F. spp.																									
Gavelinopsis praegeri																						•			
Globobulimina affinis															•						•				
G. aff. *G. pseudospinescens*																									
G. spp.																									

TABLE 26 – *Continued*

Epoch	Middle Miocene								Early Miocene																
Stage/Zone	Langhian								Burdigalian																
Species / Sample	24, CC	26, CC	27, CC	28, CC	29, CC	30-4, 103	30, CC	31, CC	32, CC	33, CC	34, CC	35, CC	36, CC	37, CC	38-4, 75	38, CC	39, CC	40, CC	41, CC	42, CC	43, CC	44-5, 18	44, CC	45, CC	46, CC
Guttulina spp.						•									•							•			
Gyroidina altiformis															•										
G. delicata																									
G. laevigata						•																			
G. lamarckiana																									
G. orbicularis	•					•									•							•			
G. soldanii		•	•	•	•		•	•	•		•	•	•		•	•	•	•	•	•	•		•		•
G. umbonata																									
Hanzawaia boueana	•			•												•				•					
Hyalinea balthica						•																			
Karreriella bradyi		•	•	•	•				•				•								•				
Lagenonodosaria scalaris															•										
Lenticulina spp.	•					•									•							•			
Loxostoma normale																									
Martinottiella communis																									
Melonis affine						•																			
M. barleeanum	•				•	•		•	•	•				•	•	•	•	•	•			•			
M. soldanii							•										•	•				•			
Neobulimina sp.												•							•						
Neoconorbina terquemi																									
Nodosaria spp.	•					•									•							•			
Nonion depressulus																									
N. scaphum																									
Nonionella sp. A																									
Nuttallides rugosus convexus																									
N. umboniferus	•					•																			
Oolininae	•		•			•						•			•		•		•			•			
Oridorsalis umbonatus	•	•	•			•									•	•	•			•		•			
Orthomorphina exilis						•																			
O. pupoides																									
O. raphana																									
O. sp.	•					•						•													
Osangularia cultur				•		•																			
Planulina ariminensis																									
Pleurostomella acuminata	•																								
P. alternans	•						•		•							•									
P. bierigi																									
P. spp.						•																			
Pseudoclavulina crustata																									
Pullenia bulloides	•	•	•				•			•		•	•		•		•		•	•	•				
P. multilobata	•																								
P. osloensis																									
P. quinqueloba	•					•																			
P. salisburyi		•				•							•												
P. subcarinata																									
Pyrgo depressa					•																				
P. elongata																									
Quinqueloculina lamarckiana																									
Q. venusta																									
Q. spp.																					•				
Rectouvigerina royoi				•																					
Robertina translucens																									
Seabrookia earlandi	•																								
Sigmoilina distorta																									
Sigmoilopsis schlumbergeri						•																			
Sigmoilina tenuis																						•			
Siphonina reticulata	•	•			•			•	•				•												
S. tubulosa																									
Sphaeroidina bulloides	•					•	•		•	•					•		•	•		•		•			
Spiroloculina caniculata						•						•			•						•				
Stilostomella cf. *S. annulifera*	•				•	•																•			
S. antillea			•		•	•									•							•			
Trifarina angulosa angulosa															•										
T. angulosa pauperata	•					•																			
T. bradyi	•					•																			
Triloculina tricarinata																									
Uvigerina auberiana												•						•							
U. barbatula															•										
U. hispida														•	•	•				•					
U. laevis																									
U. longistriata																									
U. mediterranea																									
U. mioindex																									
U. peregrina																									
U. peregrina dirupta												•													
U. proboscidea	•																								
U. rutila																									
Valvulineria complanata																		•		•	•				
Vulvulina pennatula				•		•																			

TABLE 27
Biostratigraphic Distribution of Benthic Foraminifers at Hole 373A

Epoch	Quaternary					Pliocene		
Stage/Zone						M-Pl 3-6		
Species / Sample	1-1, 83	1-2, 27	1-3, 88	1-5, 134	1, CC	2-1, 60	2-1, 73	2-1, 125
Articulina tubulosa	•	•		•				
Bigenerina nodosaria					Barren			•
Bolivina pseudoplicata						•		
Bulimina aculeata				•				
Cassidulina crassa				•				
C. laevigata			•	•				
Eggerella bradyi							•	
Eponides pusillus							•	
Gyroidina laevigata						•	•	
G. lararckiana	•							
G. soldanii							•	
Karreriella bradyi							•	
Nonion scaphum							•	
Olininae	•	•	•	•	•		•	
Oridorsalis umbonatus							•	
Pleurostomella alternans				•				
Pullenia salisburyi							•	
Pyrgo depressa			•					
Quinqueloculina venusta				•				
Q. spp.	•	•	•	•		•	•	
Siphonina reticulata								•
Spiroloculina caniculata								•
Triloculina tricarinata				•			•	

TABLE 28
Biostratigraphic Distribution of Benthic Foraminifers at Site 374

Epoch	Quaternary													Late Pliocene									Early Pliocene								Late Miocene		
Stage/Zone														M-Pl 5							M-Pl 3			M-Pl 2					M-Pl 1?			Messinian		
Species / Sample	1-1, 80	1-2, 120	1, CC	2-1, 110	2-2, 52	2-3, 30	2, CC	3-1, 132	3, CC	4-2, 10	4-3, 110	4-4, 60	4, CC	5-2, 95	5, CC	6-2, 120	6-3, 75	6, CC	7-2, 80	7, CC	8-3, 120	8, CC	9-1, 20	9-3, 57	9-4, 30	9, CC	10, CC	11-1, 86	11-2, 77	11, CC	12, CC	13, CC	14, CC
Anomalinoides pseudogrosserugosa														●															Barren	Barren	Barren	Barren	Barren
Articulina tubulosa	●	●	●					●		●																							
Asterigerinata mamilla	●		●																														
Bolivina alata		●	●		Barren		●					Barren																					
B. arta	●	●						●	●				●																				
B. dilitata			●										●		●																		
B. pseudoplicata		●	●				●	●					●					●															
B. pseudopunctata																			●														
B. subspinescens	●												●													●		●					
Bulimina aculeata													●																				
B. alazanensis			●																														
B. marginata		●																															
Cassidulina crassa	●	●	●																														
C. laevigata	●	●	●										●																				
C. subglobosa													●		●								●										
Chilostomella oolina	●																																
Cibicides spp.															●					●													
Cibicidoides bradyi																					●		●	●									
C. robertsonianus																						●		●									
Dentalina communis																									●								
Discorbis aff. *D. columbiensis*	●		●				●	●					●							●													
D. globularis		●																															
Eggerella bradyi			●													●	●																
Elphidium spp.	●		●	●				●	●				●																				
Epistominella exigua									●															●									
Eponides pusillus				●										●		●	●		●		●		●		●								
E. schreibersii																				●		●		●	●	●	●						
Fursenkoina complanata																			●					●	●								
F. spp.																●																	
Gyroidina laevigata	●												●		●								●										
G. orbicularis														●	●		●						●	●	●								
G. umbonata																					●					●							
Hanzawaia boueana														●					●		●		●										
Hyalinea balthica	●																																
Karreriella bradyi																●	●							●									
Melonis affine													●																				
M. barleeanum		●	●			●																											
Miliolinella circularis	●	●	●				●																										
Nonion depressulus	●	●																															
N. scaphum	●								●						●		●			●		●											
Nuttallides rugosus convexus																			●		●		●	●	●								
Oolininae	●	●	●			●		●	●				●	●	●	●	●				●			●	●								
Oridorsalis umbonatus															●	●	●	●		●	●	●	●	●	●	●	●						
Pleurostomella alternans			●					●						●	●																		
Pullenia quinqueloba																		●															
Pyrgo elongata							●																										
Quinqueloculina lamarckiana	●													●						●													
Q. venusta	●													●																			
Q. spp.	●	●	●	●		●		●		●			●			●	●	●															
Sigmoilina tenuis			●																														
Siphonina reticulata																					●												
Spiroloculina caniculata			●																														
S. grata	●																																
Stilostomella cf. *S. annulifera*															●									●									
Trifarina angulosa angulosa		●							●				●		●																		
Triloculina tricarinata			●														●																

TABLE 29
Biostratigraphic Distribution of Benthic Foraminifers at Site 375

Epoch	Early Pliocene		Late Miocene							Middle Miocene							Early Miocene	
Stage/Zone	M-Pℓ 3	M-Pℓ 2	Messinian		Tortonian					Serravallian					Langhian		Burdigalian	
Species / Sample	1-1, 48	1-1, 58	2-2, 30	2, CC	4-2, 84	4, CC	5, CC	6, CC	7, CC	8-5, 148	9-1, 40	9, CC	10-3, 102	10, CC	11-2, 65	11, CC	12, CC	13,CC
Ammonia beccarii			●															
Anomalinoides pseudogrosserugosa			●															
Bolivina alata										●								
B. arta			●							●								
B. dilitata						●	●		●							●		
B. globulosa										●								
B. pseudoplicata	●						●											
B. reticulata	●																	
Bolivinita concavomoenia					●													
Cassidulina subglobosa	●																	
Cibicides lobatulus	●																	
C. spp.			●									●						
Dentalina communis	●																	
Discorbis globularis					●													
Elphidium spp.					●					●								
Epistominella exigua															●			
Eponides schreibersii					●													
Fursenkoina complanata	●																	
Guttulina spp.	●																	
Gyroidina soldanii			●															
Lenticulina spp.	●	Barren	●	Barren	Barren					Barren							Barren	
Martinettiella communis	●																	
M. barleeanum														●	●	●		
Nodosaria spp.	●																	
Nonion depressulus	●																	
N. scaphum	●									●								
Nuttallides rugosus convexus					●	●												
N. umboniferus															●			
Oolininae	●													●			●	
Oridorsalis umbonatus	●		●		●					●		●	●				●	
Osangularia cultur			●															
Pleurostomella alternans	●																	
Pullenia bulloides	●																	
P. quinqueloba	●																	
Pyrgo depressa	●																	
Quinqueloculina lamarckiana																	●	
Q. spp.	●						●									●		
Sigmoilopsis schlumbergeri	●																	
Siphonina reticulata	●				●													
Stilostomella cf. *S. annulifera*	●																	
S. lepidula												●						

TABLE 30
Biostratigraphic Distribution of Benthic Foraminifers at Site 376

Epoch	Quaternary				Late Plio-cene				Early Plio-cene			Late Miocene																	
Stage/Zone					M-Pl 5		M-Pl 4	M Pl 3	M-Pl 1			Messinian																	
Sample / Species	1, CC	2-4, 90	3-3, 130	4-1, 120	5-4, 54	5-4, 96	5-5, 50	5-5, 110	6-4, 39	6-4, 85	6, CC	7-1, 40	7, CC	8, CC	9-2, 120	9-3, 134	9-3, 135	9-3, 138	9-4, 40	9, CC	10-1, 98	10-2, 110	10, CC	11-3, 120	11, CC	12-2, 6	12-3, 108	12, CC	14, CC	15, CC	16, CC
Ammonia beccarii												•	•	•	•	•	•	•		•	•			•			•			•	•
Anomalinoides rotula																								•							
Articulina tubulosa		•																													
Astrononion umbilicatulum							•							•																•	
Bigenerina nodosaria							•																								
Bolivina alata		•			•																										
B. arta					•																										
B. beyrichi														•																	
B. compacta															•	•	•			•										•	•
B. dilitata				•									•											•			•	•			
B. globulosa											•																				
B. plicatella mera																								•			•				
B. pseudoplicata	•			•										•							•										
B. reticulata																												•			
B. subaenariensis				•																											
Bolivinita concavomoenia														•																	
Bulimina aculeata			•	•				•																							
Cassidulina braziliensis		•		•																											
C. laevigata		•					•																•				•				
C. minuta							•							•																	
C. subglobosa		•							•		•			•													•	•			
Chilostomella oolina			•	•																											
Cibicides austriacus																								•			•	•		•	•
C. pachydermus					•																										
C. tenellus									BARREN									REWORKED			BARREN			•	REWORKED	REWORKED	•		BARREN		
C. variolatus																								•			•	•			
C. wuellerstorfi					•																										
C. spp.		•		•	•	•							•				•			•	•										
Cibicidoides bradyi							•																								
Dentalina communis					•																										
Discorbis globularis		•		•																							•				
D. aff. *D. obtusa*	•			•							•	•		•																	
D. rosacea												•		•																	
Eggerella bradyi							•		•		•																				
Elphidium spp.											•			•																	
Epistominella exigua									•					•																	
Eponides pusillus	•	•	•	•			•		•		•																				
E. schreibersii							•	•			•																				
Fursenkoina complanata		•		•	•		•				•																				
Globobulimina affinis					•		•							•																	
Guttulina spp.														•																	
Gyroidina laevigata			•								•																				
G. lamarckiana				•																											
G. orbicularis				•	•		•		•					•																	
G. soldanii			•		•		•																								
G. umbonata							•																								
Hanzawaia boueana							•							•			•							•							•
Karreriella bradyi					•																										
Lenticulina spp.		•		•																											
Loxostoma normale														•																	
Martinottiella communis						•					•																				
Miliolinella circularis				•																											
Neobulimina sp.					•																										
Nodosaria spp.					•									•																	
Nonion depressulus		•																													
Nuttallides rugosus convexus							•				•	•																			
Oolininae		•	•	•			•							•						•										•	
Oridorsalis umbonatus					•	•	•	•	•		•	•																			
Orthomorphina sp.							•																								
Pleurostomella acuminata							•																								
P. alternans					•	•		•	•																						
Pullenia multiloba							•																								
P. quinqueloba							•																								
Pyrgo depressa					•	•																									
Quinqueloculina spp.	•	•		•	•		•																								
Sigmoilopsis schlumbergeri					•	•	•		BARREN			•						REWORKED			BARREN			REWORKED		REWORKED		•	BARREN		
Sigmoilina tenuis					•		•																								
Siphonina reticulata					•	•	•	•																							
Stilostomella cf. *S. annulifera*							•																				•				
S. antillea							•																								
Trifarina angulosa angulosa														•		•															
T. bradyi											•	•												•							
Triloculina tricarinata		•																													
Uvigerina auberiana																												•			
U. peregrina														•																	
U. peregrina dirupta			•																												
Valvulineria complanata				•			•							•																	
Vulvulina pennatula					•	•																									

TABLE 31
Biostratigraphic Distribution of Benthic Foraminifers at Site 377

Epoch	Quat			E./M. Miocene		
Sample / Species	1-1, 126	1-2, 74	1, CC	2, CC	3-2, 98	3-2, 142
Ammonia beccarii				Barren	Barren	Barren
Anomalina cicatricosa			•			
Articulina tubulosa	•	•				
Bolivina catanensis		•				
B. globulosa		•				
Cassidulina laevigata		•				
Eponides pusillus		•	•			
Gyroidina soldanii		•				
Oolinae	•	•				
Pleurostomella alternans	•					
Pullenia quinqueloba		•				
P. salisburyi		•				
Quinqueloculina spp.	•					

TABLE 32
Biostratigraphic Distribution of Benthic Foraminifers at Holes 378 and 378A

Epoch	Quaternary						Late Pliocene					Early Pliocene			
Stage/Zone							M-Pl 6		M-Pl 5		M-Pl 4			M-Pl 3	M-Pl 2
Species \ Sample	378A-1, CC	378-1-2, 80	378-1, CC	378-2, CC	378-3-2, 110	378-3, CC	378-5, CC	378-6, CC	378-7, CC	378-8, CC	378-9, CC	378A-3, CC	378-11-2, 40	378-11-4, 110	378-11, CC
Articulina tubulosa	•		•	•		•									
Astrononion umbilicatulum														•	
Bigenerina nodosaria		•													
Bolivina alata						•									
B. albatrossi			•		•										•
B. arta										•					
B. catanensis			•			•									•
B. compacta															•
B. dilitata															•
B. pseudoplicata									•						
B. pseudopunctata															•
B. reticulata												•	•		•
B. spathulata			•												•
B. subspinescens					•										
B. variablis															•
Bulimina aculeata								•		•					
B. alazanensis			•					•			•	•		•	
B. inflata															•
B. marginata										•			•		
Cassidulina crassa												•			
C. braziliensis	•							•							
C. laevigata	•		•	•		•	•	•	•	•	•			•	
C. minuta															•
C. subglobosa	•		•	•		•		•	•	•		•	•	•	•
Chilostomella oolina						•									
Cibicides austriacus															•
C. lobatulus															•
C. pachydermus				•											•
C. variolatus															•
C. spp.		•		•					•	•	•	•		•	•
Cibicidoides kullenbergi															•
Dentalina communis										•					
Discorbis globularis				•				•		•	•	•		•	•
D. parkerae															•
D. rosacea															•
Eggerella bradyi	•														
Elphidium spp.			•					•		•				•	
Epistominella exigua								•	•						
Eponides pusillus						•									
E. schreibersii									•			•			
Fursenkoina complanata		•							•					•	
F. spp.		•												•	
Gavelinopsis praegeri					•	•								•	

TABLE 32 - *Continued*

Epoch	Quaternary						Late Pliocene					Early Pliocene			
Stage/Zone							M-Pl 6		M-Pl 5		M-Pl 4		M-Pl 3		M-Pl 2
Species / Sample	378A-1, CC	378-1-2, 80	378-1, CC	378-2, CC	378-3-2, 110	378-3, CC	378-5, CC	378-6, CC	378-7, CC	378-8, CC	378-9, CC	378A-3, CC	378-11-2, 40	378-11-4, 110	378-11, CC
Glabratella pulvinata					•										
Gyroidina altiformis															•
G. laevigata						•		•	•						•
G. orbicularis			•												
Hanzawaia boueana			•	•		•		•	•			•			•
Hoeglundina elegans					•	•									
Hyalinea balthica	•	•												•	
Karreriella bradyi									•					•	
Lenticulina spp.												•			•
Melonis barleeanum			•	•		•	•	•	•	•	•	•		•	•
M. soldanii													•		
Neobulimina sp.								•							
Necconorbina terquemi					•										
Nodosaria spp.				•											•
Nonion depressulus									•			•	•		
N. scaphum									•	•					
Nonionella sp. A		•													
Oolininae			•	•			•	•	•	•	•		•		•
Oridorsalis umbonatus			•				•	•		•	•				•
Planulina ariminensis									•			•	•		•
Pleurostomella alternans								•					•	•	
P. spp.														•	
Pseudoclavulina crustata															•
Pullenia bulloides				•			•	•	•	•	•			•	•
P. quinqueloba			•					•	•		•	•		•	•
Quinqueloculina venusta		•		•		•									
Q. spp.	•														
Robertina translucens						•									
Seabrookia earlandi		•													
Sigmoilina tenuis		•	•	•		•		•				•	•	•	
Sigmoilopsis schlumbergeri		•	•			•			•	•	•		•		
Siphonina reticulata									•					•	
S. tubulosa													•	•	
Sphaeroidina bulloides			•			•		•	•	•		•	•	•	
Trifarina angulosa angulosa			•	•										•	
T. angulosa pauperata		•													
T. bradyi											•	•	•	•	•
Triloculina tricarinata		•		•											
Uvigerina longistriata															•
U. mediterranea														•	•
U. mioindex															•
U. peregrina								•	•	•	•				
U. peregrina dirupta		•		•								•	•	•	•
U. rutila															•