

53. DATA REPORT: NANNOFOSSIL BIOHORIZONS AND AGE-DEPTH PLOTS FOR LEG 133 SITES¹

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Paleontological studies conducted subsequent to the completion of Leg 133 led to refinements of the biostratigraphy for the Leg 133 sites. These biostratigraphic refinements bear on the calculations of sedimentation rates and on the age-depth plots prepared for the *Initial Reports* volume for Leg 133. To make available the revised data to anyone who may wish to make use of it, the revised biostratigraphic information is presented here in tabulated form (Tables 1 and 2). Revised age-depth plots also are presented for all of the sites (Figs. 1–13) to facilitate comparison of sedimentation rate curves and to identify intervals where significant changes have been made based on post-cruise studies. The revised age-depth plots include calcareous nannofossils only, and the revised data have been taken from the chapters contributed for this volume (Gartner et al., this volume; Wei and Gartner, this volume). Planktonic foraminifer biostratigraphy revisions became available subsequently and could not be readily incorporated. The age-depth plots for Sites 812 through 818 were made with the (ADP) program provided to ODP by Dave Lazarus.

Figures 1 through 6 represent Sites 811 and 819 through 823, which are from the northern transect (Queensland Trough transect). Figures 7 through 13 represent Sites 812 through 818, which are from the southern transect (Townsville Trough transect).

The labels on the points of the age-depth plots are the plot codes of biohorizons. The names for the biohorizons are given in Tables 1 and 2. The ages for the biohorizons were mainly taken from Berggren et al. (1985), with some modifications where better-constrained ages were available from more recent studies (see Gartner, Wei, and Shuy, this volume; and Wei and Gartner, this volume).

REFERENCE*

Berggren, W.A., Kent, D.V., and Van Couvering, J.A., 1985. The Neogene: Part 2. Neogene geochronology and chronostratigraphy. In Snelling, N.J. (Ed.), *The Chronology of the Geological Record*. Geol. Soc. London Mem., 10:211–260.

* Abbreviations for names of organizations and publication titles in ODP reference lists follow the style given in *Chemical Abstracts Service Source Index* (published by American Chemical Society).

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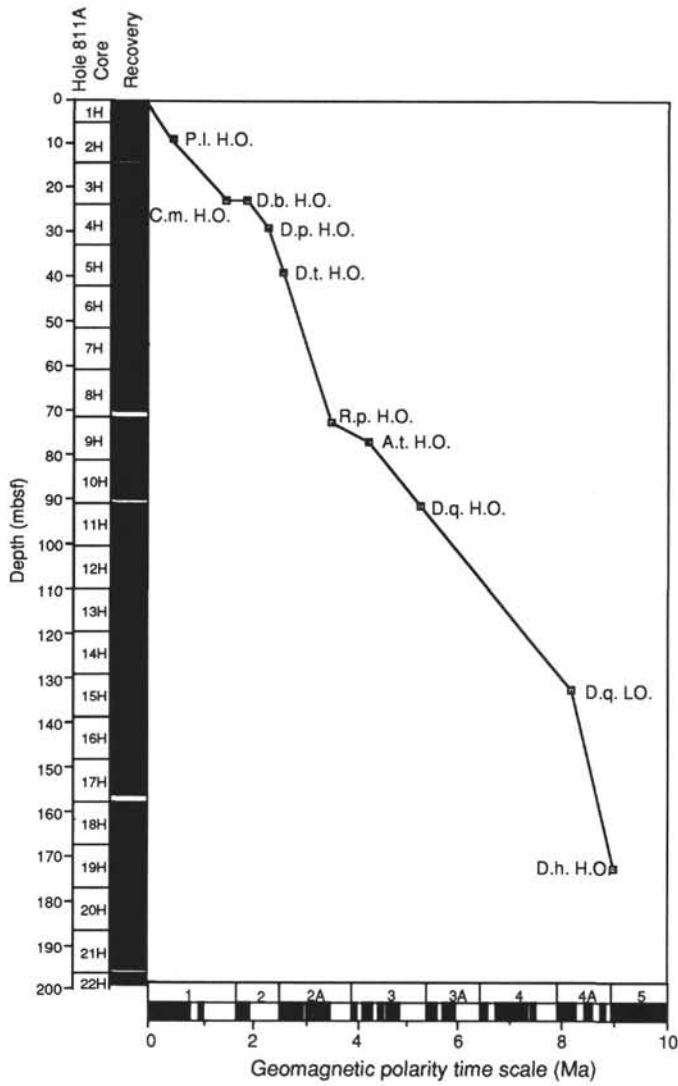


Figure 1. Age vs. depth plot for Hole 811A.

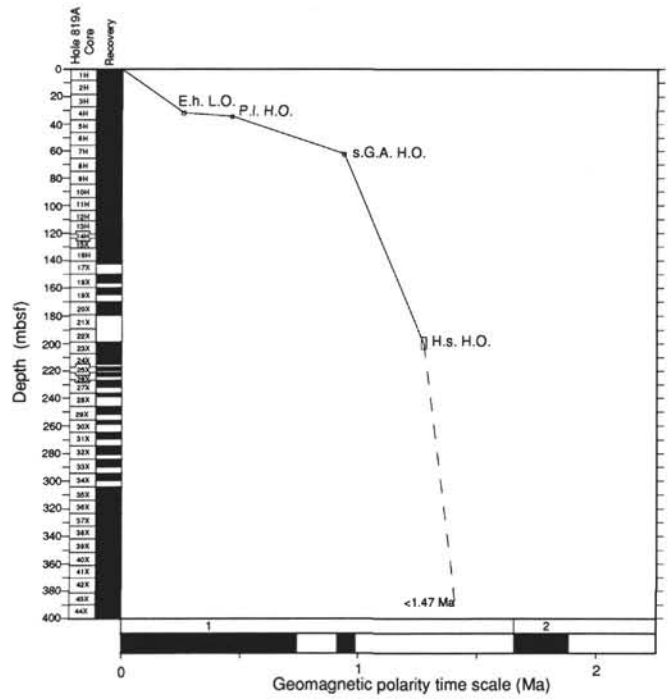


Figure 2. Age vs. depth plot for Hole 819A.

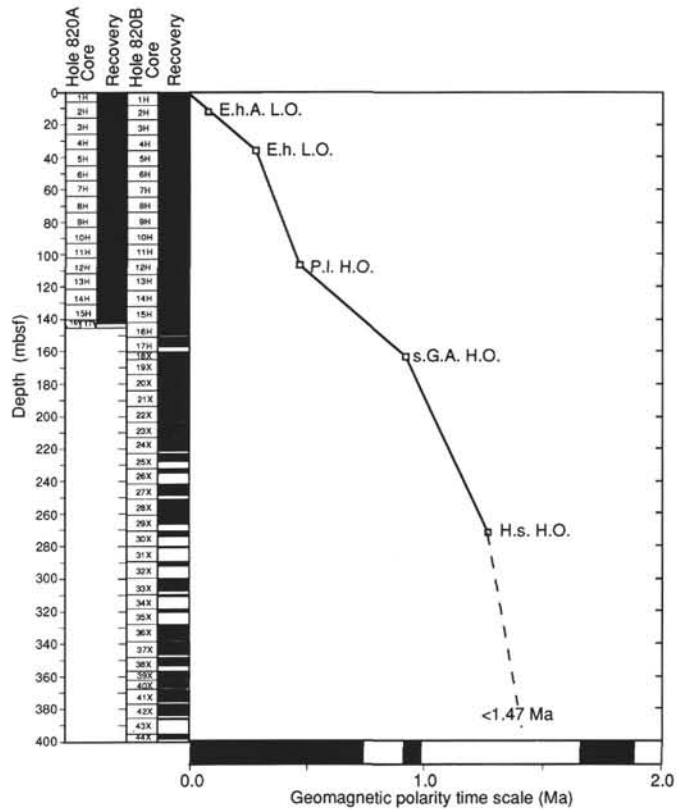


Figure 3. Age vs. depth plot for Holes 820A and 820B.

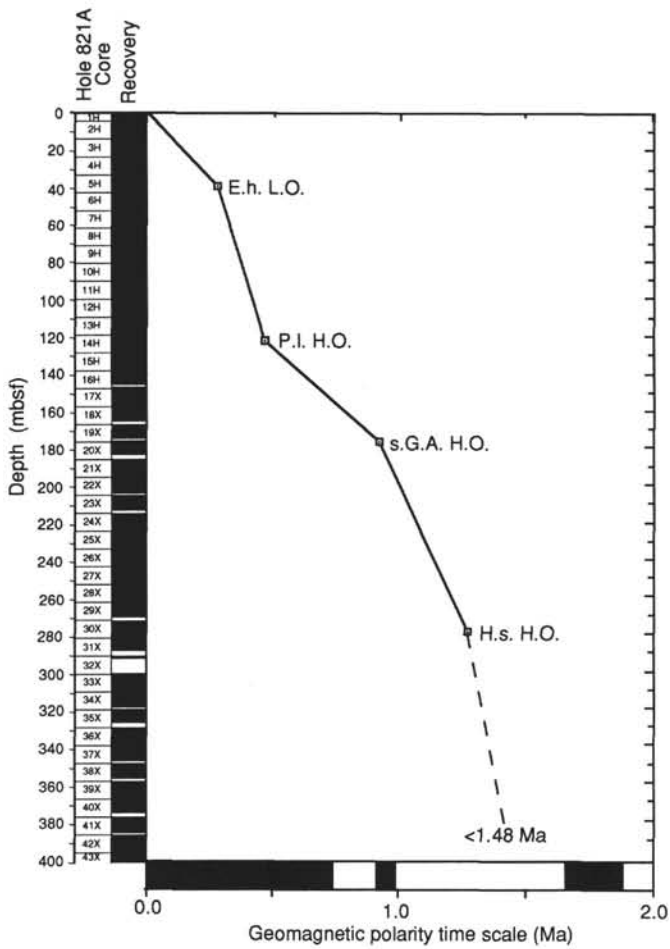


Figure 4. Age vs. depth plot for Hole 821A.

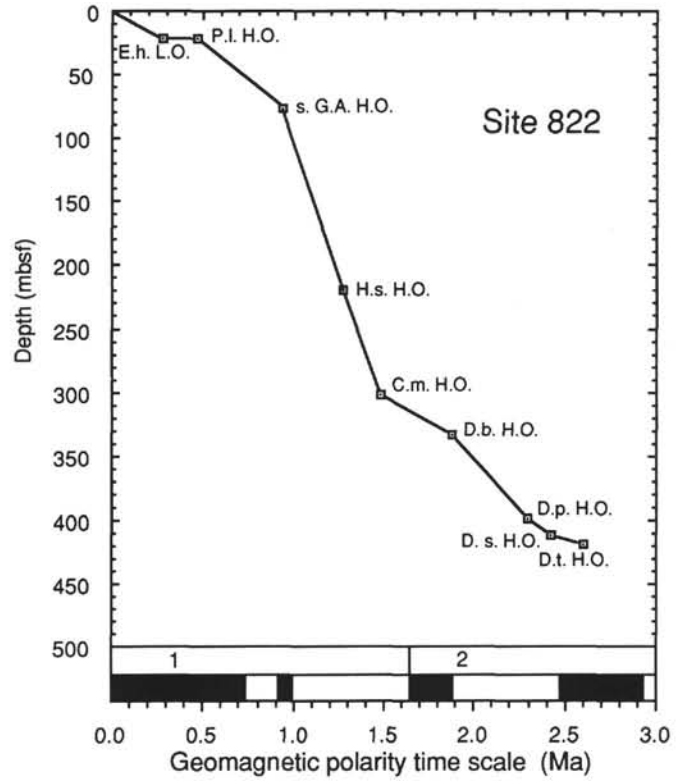


Figure 5. Age vs. depth plot for Site 822.

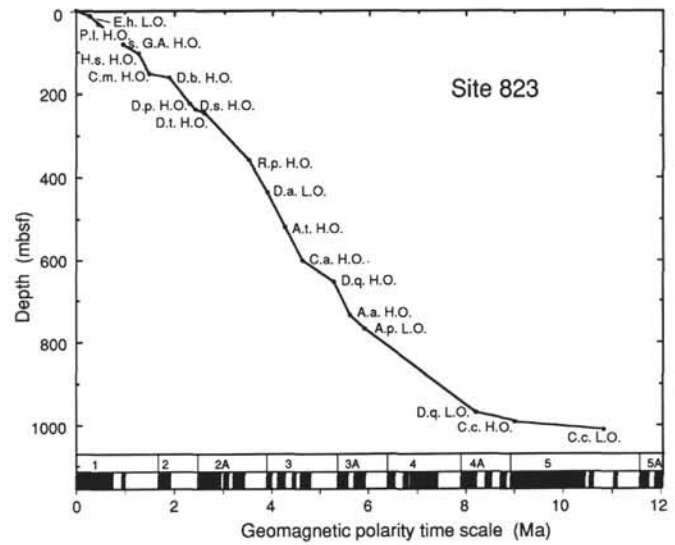


Figure 6. Age vs. depth plot for Site 823.

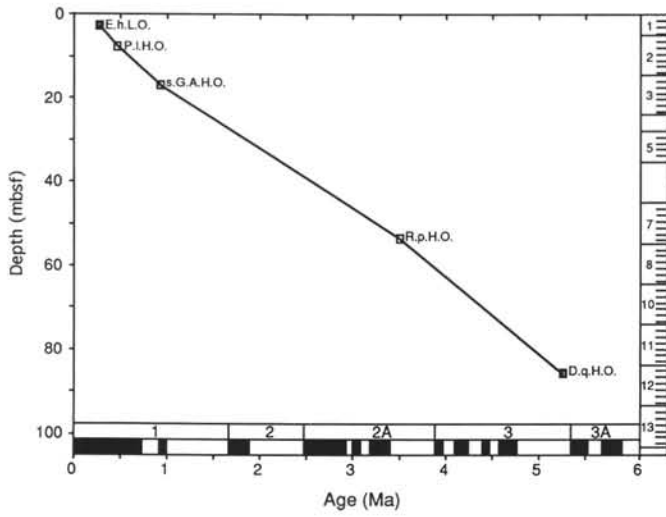


Figure 7. Age vs. depth plot for Site 812.

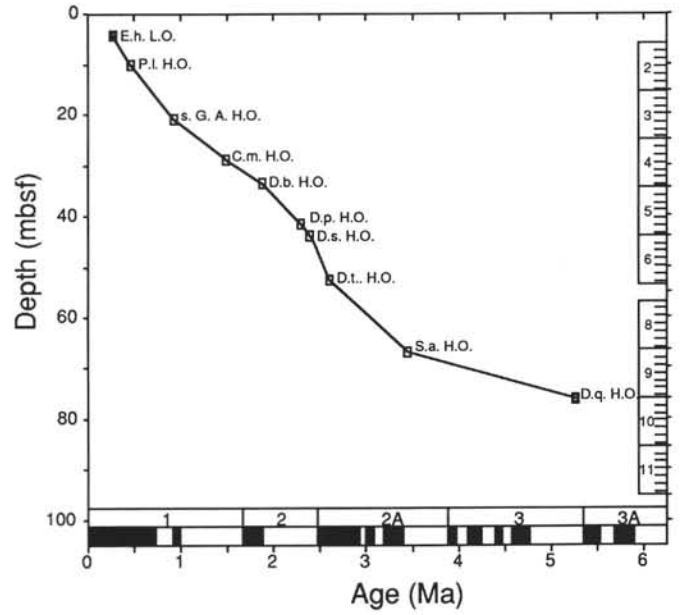


Figure 9. Age vs. depth plot for Hole 814A.

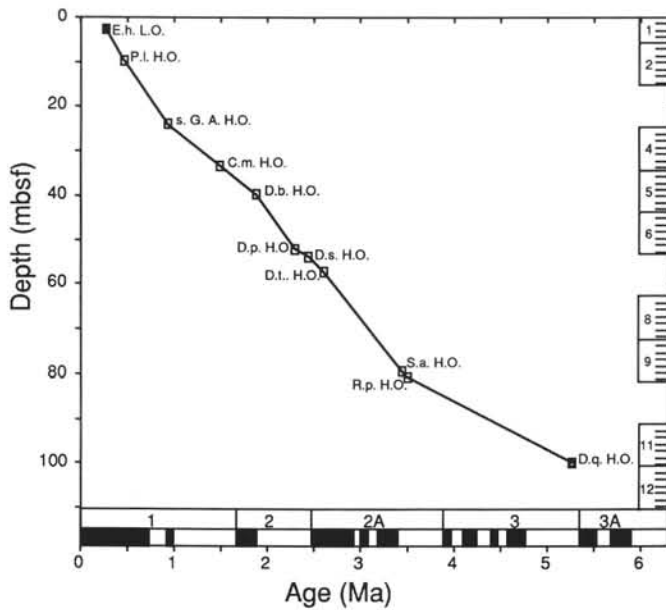


Figure 8. Age vs. depth plot for Hole 813A.

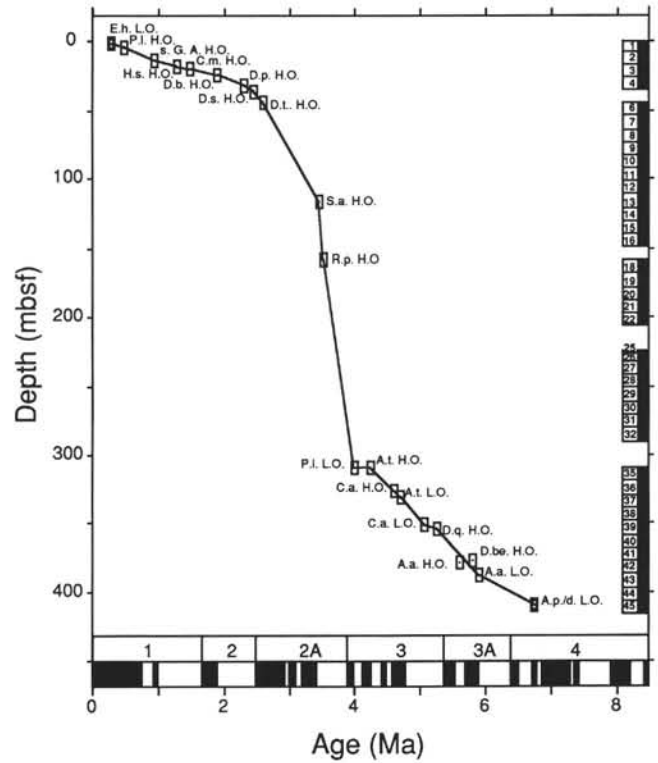


Figure 10. Age vs. depth plot for Hole 815A.

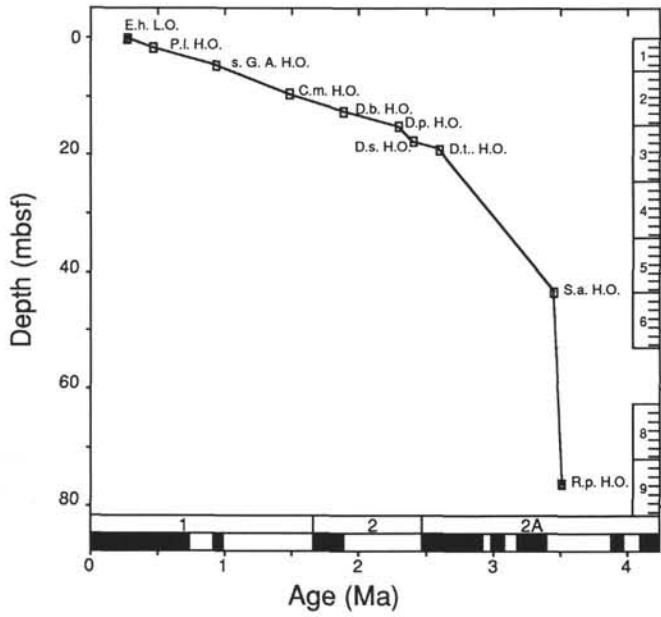


Figure 11. Age vs. depth plot for Hole 816A.

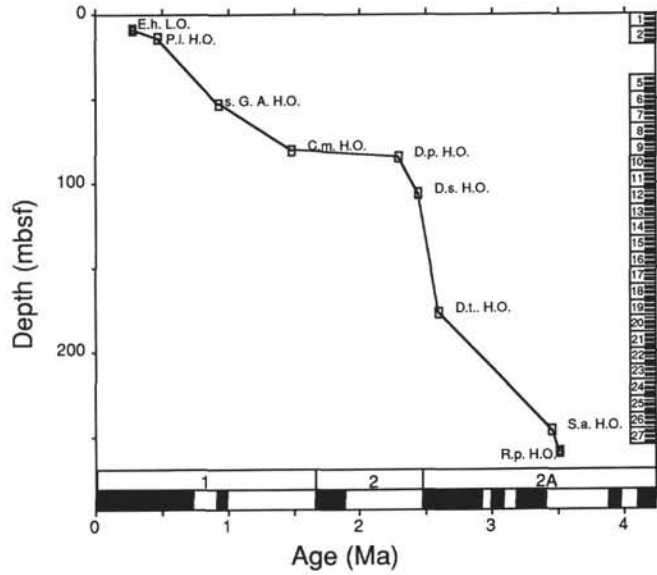


Figure 13. Age vs. depth plot for Hole 818B.

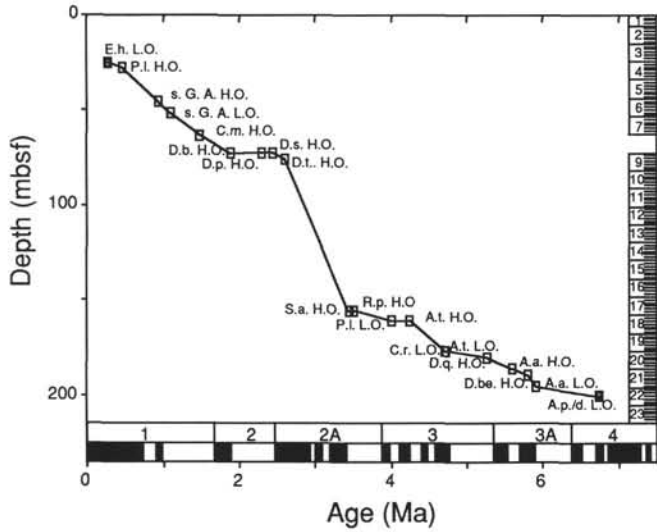


Figure 12. Age vs. depth plot for Hole 817A.

Table 1. Nannofossil biohorizons for Sites 811 and 819 through 825.

Biohorizon	Plot code	Age (Ma)	Site							
			811	819	820	821	822	823	824	825
<i>E. huxleyi</i> acme LO	E.h.A L.O.	0.075		8.4	12.1					
<i>E. huxleyi</i> LO	E.h. L.O.	0.275		29.4	35.8	39.3	21.8	12.2		
<i>P. lacunosa</i> HO	P.l. H.O.	0.465	8.9	32.4	107.1	123.1	21.8	32.0	47.8	
small <i>Gephyr.</i> top	s.G.A. H.O	0.92		56.1	163.6	176.8	77.8	80.2		
<i>H. sellii</i> HO	H.s. H.O.	1.27		189.2	271.7	279.2	220.0	105.7		
<i>C. macintyreii</i> HO	C.m. H.O.	1.48	22.9	>400	>400	>400	301.5	150.9	92.8	
<i>D. brouweri</i> HO	D.b. H.O.	1.88	22.9				333.4	163.0		
<i>D. pentaradiatus</i> HO	D.p. H.O.	2.29	29.4				399.3	222.3		
<i>D. surculus</i> HO	D.s. H.O.	2.42					411.0	236.2		
<i>D. tamalis</i> HO	D.t. H.O.	2.60	38.9					244.3		
<i>R. pseudoumbilicus</i> HO	R.p. H.O.	3.51	72.6					359.3		
<i>D. asymmetricus</i> Ac.LO	D.a.A. L.O.	3.88						435.5		
<i>A. tricorniculatus</i> HO	A.t. H.O.	4.24	76.9					521.6		
<i>C. armatus</i> HO	C.a. H.O.	4.60						602.0		
<i>D. quinqueramus</i> HO	D.q. H.O.	5.26	91.6					653.0		
<i>A. amplificus</i> HO	A.a. H.O.	5.6						733.1		
<i>A. amplificus</i> LO	A.a. L.O.	5.9						767.6		
<i>D. quinqueramus</i> LO	D.q. L.O.	8.2	132.6					967.4		
<i>D. hamatus</i> HO	D.h. H.O.	8.85	172.6							
<i>C. coalitus</i> HO	C.c. H.O.	9.0						989.8		
<i>C. coalitus</i> LO	C.c. L.O.	10.8						1009.1		
<i>C. floridanus</i> HO	C.f. H.O.	11.0								214.3

Table 2. Nannofossil biohorizons for Sites 812 through 818.

Species	Plot code	Age (Ma)	Depth /812A (mbsf)	812C (mbsf)	813A (mbsf)	814A (mbsf)	815A (mbsf)	816A (mbsf)	817A (mbsf)	818B (mbsf)
<i>E. huxleyi</i> LO	E.h. LO.	0.275	2.67		2.63	4.12	1.1	0.37	25.07	9.53
<i>P. lacunosa</i> HO	P.l. H.O.	0.465	7.52		9.83	10.01	4.1	1.87	28.07	14.03
small <i>Gephyrocapsa</i> Acme top	s.G.A. H.O.	0.93	17.02		23.82	21.01	13.9	4.87	45.56	53.51
small <i>Gephyrocapsa</i> Acme bottom	s.G.A. H.O.	1.1					17.4		51.56	
<i>H. sellii</i> HO	H.s. H.O.	1.27					18.9			
<i>C. macintyreii</i> HO	C.t. H.O.	1.48	23.9	23.27-24.77	33.32	29.01	20.4	9.62	63.06	80.51
<i>G. oceanica</i> LO	G.o. LO.	1.59								
<i>D. brouweri</i> HO	D.b. H.O.	1.88		25.9	39.81	33.51	24.9	12.62	72.56	
<i>D. pentaradiatus</i> HO	D.p. H.O.	2.29	25.96-27.90	26.85-29.0	52.31	41.51	31.4	15.18	72.56	84.58
<i>D. surculus</i> HO	D.s. H.O.	2.24			53.81	44.51	36.4	17.62	72.56	106.01
<i>D. asymmetricus</i> HO	D.a. H.O.	2.24								
<i>D. tamalis</i> HO	D.t. H.O.	2.6			57.31	52.51	44.72	19.12	75.56	177.02
<i>D. variabilis</i> HO	D.v. H.O.	2.9								
<i>S. abies</i> HO	S.a. H.O.	3.45	29.26-35.40		79.31	66.83	116.91	43.5	155.7	246.08
<i>R. pseudoumbilicus</i> HO	R.p. H.O.	3.51		53.61	80.81		158.9	76.11	155.7	259.51
<i>P. lacunosa</i> LO	P.l. L.O.	4					309.46		161.06	
<i>A. tricorniculatus</i> HO	A.t. H.O.	4.24					309.46		161.06	
<i>C. armatus</i> HO	C.a. H.O.	4.6					326.35			
<i>A. tricorniculatus</i> LO	A.t. L.O.	4.7					331.61		176.7	
<i>C. rugosus</i> LO	C.r. L.O.	4.72							176.7	
<i>C. armatus</i> LO	C.a. L.O.	5.06					351			
<i>D. quinqueramus</i> HO	D.q. H.O.	5.26		85.61	99.81	76	354		180.07	
<i>A. amplificus</i> HO	A.a. H.O.	5.6					378.54		186.07	
<i>D. berggreni</i> HO	D.be. H.O.	5.8					377.04		189.57	
<i>A. amplificus</i> LO	A.a. L.O.	5.9					387.3		195.57	
<i>A. primus/A. delicatus</i> LO	A.p/d. LO.	6.74					409.36		200.56	