

III. CORES FROM THE OPEN PACIFIC

EAST PACIFIC RISE

TT154-10

This study was carried out in cooperation with Steve Emerson of the University of Washington. The purpose was to obtain benthic-planktonic and planktonic-planktonic age differences on hand-picked foraminifera shells. Material was taken from two separate subcores from the primary 50cm² box core (see Tables 8, 9).

TABLE 8

TT154-10 (Core 5) East Pacific Rise
Location (10°17.5'N, 111°20'W) Depth 3225m

Depth (cm)	Coarse fraction (%)	Foram sp	Abund (no./gm)	Abund (mgm/gm)	No. tests analyzed	Weight analyzed (mgm)	Date of AMS analysis	Age (yr)	Ref*
0- 1	35.7	BULK CaCO ₃	-	-	-	-	-	5100 ± 200**	15
"	"	<u>G sacc</u>	885	-	-	7.2	July 84	5920 ± 100	15
"	"	<u>P obliq</u>	612	-	-	10.2	"	5770 ± 120	15
"	"	<u>M benth</u>	32.0	0.56	537	9.4	-	-	-
1- 2	41.0	<u>G sacc</u>	-	-	-	9.9	July 84	5930 ± 100	15
"	"	<u>P obliq</u>	-	-	-	7.7	"	5580 ± 140	15
2- 3	40.4	<u>G sacc</u>	767	-	187	7.4	July 84	6110 ± 100	15
"	"	<u>P obliq</u>	787	-	192	7.2	"	5020 ± 130	15
"	"	<u>M benth</u>	26.0	0.35	607	8.1	-	-	15
3- 4	34.9	BULK CaCO ₃	-	-	-	-	-	5100 ± 200**	15
"	"	<u>G sacc</u>	657	-	-	12.4	Mar 84	5160 ± 140	15
"	"	<u>P obliq</u>	743	-	-	9.1	July 84	4750 ± 110	15
"	"	<u>M benth</u>	36.0	0.38	920	9.7	-	-	-
4- 6	37.5	BULK CaCO ₃	-	-	-	-	-	5600 ± 200**	15
"	"	<u>G sacc</u>	786	-	-	8.7	July 84	6770 ± 150	15
"	"	<u>P obliq</u>	643	-	-	12.6	"	5500 ± 90	15
"	"	<u>M benth</u>	27.0	0.37	496	6.8	-	-	-
6- 8	37.8	<u>G sacc</u>	-	-	-	12.2	July 84	5880 ± 100	15
"	"	<u>P obliq</u>	-	-	-	10.9	"	5530 ± 100	15
"	"	<u>M benth</u>	28.0	0.31	570	6.4	-	-	-
7- 8	-	BULK CaCO ₃	-	-	-	-	-	6100 ± 250**	15
8-10	34.5	<u>G sacc</u>	675	-	-	8.7	July 84	6500 ± 110	15
"	"	<u>P obliq</u>	532	-	-	11.5	"	6180 ± 100	15
"	"	<u>M benth</u>	30.0	0.42	591	8.3	-	-	-
9-10	45.2	BULK CaCO ₃	-	-	-	-	-	5700 ± 150**	15
11-12	-	BULK CaCO ₃	-	-	-	-	-	6700 ± 250**	15
10-14	-	<u>M benth</u>	25.0	0.34	537	7.4	-	-	-
13-14	-	BULK CaCO ₃	-	-	-	-	-	8100 ± 300**	-
14-16	48.8	BULK CaCO ₃	-	-	-	-	-	8800 ± 100**	-
"	"	<u>G sacc</u>	648	-	-	-	-	-	-
"	"	<u>P obliq</u>	800	-	-	-	-	-	-
"	"	<u>M benth</u>	31.0	-	-	-	-	-	-

REFERENCES

- Broecker, W S, Andrée, M, Bonani, G, Mix, A, Klas, M, Wolfli, W and Oeschger, H, ms in preparation, Differences between the radiocarbon ages of coexisting planktonic foraminifera.
- Broecker, W S, Andrée, M, Bonani, G, Wolfli, W, Oeschger, H, Klas, M, Mix, A and Curry, W, ms in preparation, The radiocarbon age of deep water in the glacial ocean.
- Emerson, S, Stump, C, Grootes, P M, Stuiver, M, Farwell, G W and Schmidt, F H, 1987, Estimates of degradable organic carbon in deep-sea surface sediments from ¹⁴C concentrations: Nature, v 329, p 51-53.

TABLE 8 (cont'd)

Depth (cm)	Coarse fraction (%)	Foram sp	Abund (no./gm)	Abund (mgm/gm)	No. tests analyzed	Weight analyzed (mgm)	Date of AMS analysis	Age (yr)	Ref*
16-18	49.6	BULK CaCO ₃	-	-	-	-	-	9400 ± 100**	
"	"	<u>M benth</u>	31.0	-	-	-	-	-	
18-20	46.5	<u>M benth</u>	36.0	-	-	-	-	-	
20-22	50.1	<u>M benth</u>	31.0	-	-	-	-	-	
22-24	43.5	<u>G sacc</u>	511	-	-	13.0	July 84	11,640 ± 130	
"	"	<u>P obliq</u>	481	-	-	-	-	-	
"	"	<u>M benth</u>	35.0	0.48	530	7.3	-	-	
24-26	52.3	<u>M benth</u>	39.0	-	587	-	-	-	
26-28	51.2	<u>G sacc</u>	-	-	-	-	Jan 87	12,200 ± 230	15
"	"	<u>P obliq</u>	-	-	-	11.6	"	13,350 ± 250	15
"	"	<u>M benth</u>	37.0	0.44	562	6.7	"	16,220 ± 300	
28-30	53.8	<u>M benth</u>	55.0	-	-	-	-	-	
30-32	47.3	-	-	-	-	-	-	-	
"	"	<u>P obliq</u>	-	-	-	12.8	Jan 87	16,320 ± 310	15,16
"	"	<u>M benth</u>	83.0	1.14	656	9.0	"	17,500 ± 380	16
30-32	46.9	<u>G sacc</u>	120	9.4	150	11.8	Mar 87	15,770 ± 330	15,16
"	"	<u>P obliq</u>	-	-	-	-	-	-	
"	"	<u>M benth</u>	-	-	-	-	-	-	
32-34	46.6	<u>M benth</u>	34.0	-	-	-	-	-	
34-36	47.5	<u>G sacc</u>	-	-	161	10.7	Jan 87	16,600 ± 340	15,16
"	"	<u>P obliq</u>	-	-	200	14.2	"	16,530 ± 340	15,16
"	"	<u>M benth</u>	57.0	0.62	809	8.8	"	19,170 ± 420	16
36-38	46.6	<u>M benth</u>	72.0	-	-	-	-	-	
36-38	46.1	<u>G sacc</u>	-	-	150	10.6	Mar 87	16,320 ± 370	15,16
"	"	<u>P obliq</u>	-	-	113	8.1	"	17,390 ± 370	15,16
"	"	<u>M benth</u>	-	-	137	6.8	"	20,180 ± 610	16
40-42	46.9	<u>G sacc</u>	362	-	-	10.5	July 84	20,110 ± 220	16
"	"	<u>M benth</u>	44.0	0.73	484	8.0	"	21,980 ± 640	16

*Publication no. in which radiocarbon date has been published (see References cited)

**Ages obtained at LDGO by conventional decay counting

TABLE 9

TT154-10 (Emerson Frozen Subcore) East Pacific Rise
 Location (10°17.5'N, 111°20'W) Depth 3225m

Depth (cm)	Coarse fraction (%)	Foram sp	Abund (no./gm)	Abund (mgm/gm)	No. tests analyzed	Weight analyzed (mgm)	Date of AMS analysis	Age (yr)
0-								
1.2	49.9	<u>G_sacc</u>	487	-	-	-	-	-
"	"	<u>P_obliq</u>	683	-	-	-	-	-
"	"	<u>M_benth</u>	38.0	0.48	657	8.3	May 85	6700 ± 100
1.2-								
2.4	49.9	<u>G_sacc</u>	411	-	-	-	-	-
"	"	<u>P_obliq</u>	679	-	-	-	-	-
"	"	<u>M_benth</u>	36.0	0.41	653	7.5	Jun 85	6780 ± 110
2.4-								
3.6	48.6	<u>G_sacc</u>	531	-	-	-	-	-
"	"	<u>G_ruber</u>	-	-	754	8.2	-	-
"	"	<u>P_obliq</u>	742	-	-	-	-	-
"	"	<u>N_duter</u>	-	-	300	12.1	-	-
"	"	<u>M_benth</u>	35.0	0.39	704	7.9	Dec 84	6930 ± 110
3.6-								
4.8	42.0	<u>G_sacc</u>	403	33.7	140	11.7	-	-
"	"	<u>P_obliq</u>	597	43.5	147	10.7	-	-
"	"	<u>M_benth</u>	37.0	0.51	705	9.8	Jun 85	6960 ± 100
4.8-								
6.0	44.8	<u>G_sacc</u>	485	33.3	150	10.3	-	-
"	"	<u>P_obliq</u>	624	48.5	148	11.5	-	-
5.0-								
6.0	44.8	<u>M_benth</u>	34.0	0.47	641	8.8	Jun 85	6610 ± 110
6.0-								
7.2	47.5	<u>G_sacc</u>	462	32.8	163	11.2	-	-
"	"	<u>P_obliq</u>	657	55.6	124	10.5	-	-
"	"	<u>M_benth</u>	41.0	0.51	784	9.7	Jun 85	6550 ± 90
7.2-								
8.4	45.0	<u>G_sacc</u>	434	40.7	130	12.2	-	-
"	"	<u>P_obliq</u>	590	52.2	113	10.0	-	-
"	"	<u>M_benth</u>	32.0	0.39	747	9.0	Jun 85	7410 ± 110
8.4-								
9.6	44.0	<u>G_sacc</u>	335	23.9	168	12.0	-	-
"	"	<u>P_obliq</u>	573	43.8	157	12.0	-	-
"	"	<u>M_benth</u>	35.0	0.38	707	7.6	-	-

Table 9 (cont'd)

Depth (cm)	Coarse fraction (%)	Foram sp	Abund (no./gm)	Abund (mgm/gm)	No. tests analyzed	Weight analyzed (mgm)	Date of AMS analysis	Age (yr)
9.6-								
10.8	37.1	<u>G sacc</u>	527	40.9	152	11.8	-	-
"	"	<u>P obliq</u>	598	48.6	144	11.7	-	-
10.8-								
12.0	37.4	<u>G sacc</u>	490	32.2	166	10.9	-	-
"	"	<u>P obliq</u>	562	48.8	137	11.9	-	-
12.0-								
13.2	39.0	<u>G sacc</u>	447	31.7	162	11.5	May 85	6950 ± 110
"	"	<u>G ruber</u>	-	-	552	7.5	-	-
"	"	<u>P obliq</u>	625	47.0	145	10.9	May 85	6480 ± 100
"	"	<u>N duter</u>	-	-	326	12.2	-	-
"	"	<u>M benth</u>	28.0	0.38	644	8.6	May 85	9400 ± 120
13.2-								
14.4	39.6	<u>G sacc</u>	470	36.8	152	11.9	-	-
"	"	<u>P obliq</u>	582	44.0	152	11.5	-	-
20.4-								
21.6	44.2	<u>G sacc</u>	569	44.0	163	12.6	-	-
"	"	<u>P obliq</u>	382	30.8	150	12.1	-	-
"	"	<u>G ruber</u>	973	22.6	543	12.6	-	-
"	"	<u>N duter</u>	181	7.6	300	12.6	-	-
25.2-								
26.4	50.3	<u>G sacc</u>	405	21.6	205	10.9	-	-
"	"	<u>P obliq</u>	560	34.0	283	17.2	-	-
31.2-								
32.4	49.0	<u>G sacc</u>	188	9.9	61	3.2	-	-
"	"	<u>P obliq</u>	448	28.7	145	9.3	-	-
34.8-								
36.0	47.9	<u>G sacc</u>	231	15.6	120	8.1	-	-
"	"	<u>P obliq</u>	448	35.0	233	18.2	-	-
39.6-								
40.8	50.1	<u>G sacc</u>	148	13.0	67	5.9	-	-
"	"	<u>P obliq</u>	532	38.4	241	17.4	-	-
44.4-								
45.6	43.7	<u>G sacc</u>	110	7.8	45	3.2	-	-
"	"	<u>P obliq</u>	509	34.1	209	14.0	-	-
49.2-								
50.4	45.9	<u>G sacc</u>	242	14.8	100	6.1	-	-
"	"	<u>P obliq</u>	363	35.8	150	14.8	-	-