PROGRESS REPORT

FOR THE FORTIETH QUARTER

on

STUDY OF WOODBORER POPULATIONS IN RELATION TO THE OYSTER CREEK NUCLEAR GENERATING STATION

to

GPU NUCLEAR CORPORATION
May 31, 1985

by

R.E. Hillman and C.I. Belmore

REPORT NO. 15288

For the Period
February 1, 1985 to April 30, 1985

BATTELLE
New England Marine Research Laboratory
397 Washington Street
Duxbury, Massachusetts 02332

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

EXECUTIVE SUMMARY

This progress report presents data from field and laboratory work during the period February 1 to April 30, 1985. Also included are the results of observations on gonad development in samples collected in January, February, and March, 1985.

All field work during this quarter was carried out by GPU Nuclear personnel. Temperature, salinity, dissolved oxygen and pH were measured and recorded at each of the 20 stations during the three periods of exposure panel exchange.

The long-term exposure panels from the Coast Guard Station have had very high numbers of Teredinidae this quarter due to the heavy settlement of larvae in the fall of 1984 at this location.

The special 12-month panel due to be removed in June, 1985, from Station 1 was taken off the rack in April due to the heavy borer attack.

No Limnoria tunnels were found in any of the exposure panels removed in March or April, 1985.

Gonad development over the quarterly report period was consistent with development for the same period last year. Many of the gonads were in the early-active mode expected during the late winter and early spring. Teredo navalis typically develops earlier than Bankia gouldi, and this pattern was reflected in the increasing number of T. navalis with late-active gonads in March.

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INTRODUCTION

Battelle's New England Marine Research Laboratory is conducting an investigation to determine whether the Oyster Creek Nuclear Generating Station is affecting the resident marine borer population in Oyster Creek to the extent that that population is contributing significantly to marine borer-caused damage in Barnegat Bay.

A description of the program and procedures used may be found in the eighth annual report titled, "Study of Woodborer Populations in Relation to the Oyster Creek Generating Station", dated May 15, 1984.

This report presents data for the fortieth quarterly period from February 1 to April 30, 1985.

PROCEDURES AND INTERIM DATA

Exposure panels

The long-term and short-term exposure panels were retrieved and replaced with new untreated pre-soaked (for two weeks) panels at the 20 exposure sites in Barnegat Bay and adjacent waters (Figure 1) during the periods of February 11-12, March 11-12, and April 8-9, 1985. Long-term and short-term panels at all stations were retrieved and replaced by personnel from GPU's Oyster Creek Nuclear Generating Station.

Table 1 describes the geographical locations of the exposure sites. Data from the laboratory examination of the panels are presented in Tables 2 through 5.

Water Quality

Salinity, water temperature, dissolved oxygen and pH were taken at each site by the GPU Nuclear field team. Results for February, March, and April, 1985 are presented in Tables 6 through 8.

Teredinid Gonadal Development Studies

Table 9 shows the gonad condition of teredinid borers collected in January, February, and March, 1985. Included are results from panels exposed for periods ranging from 6 to 12 months.

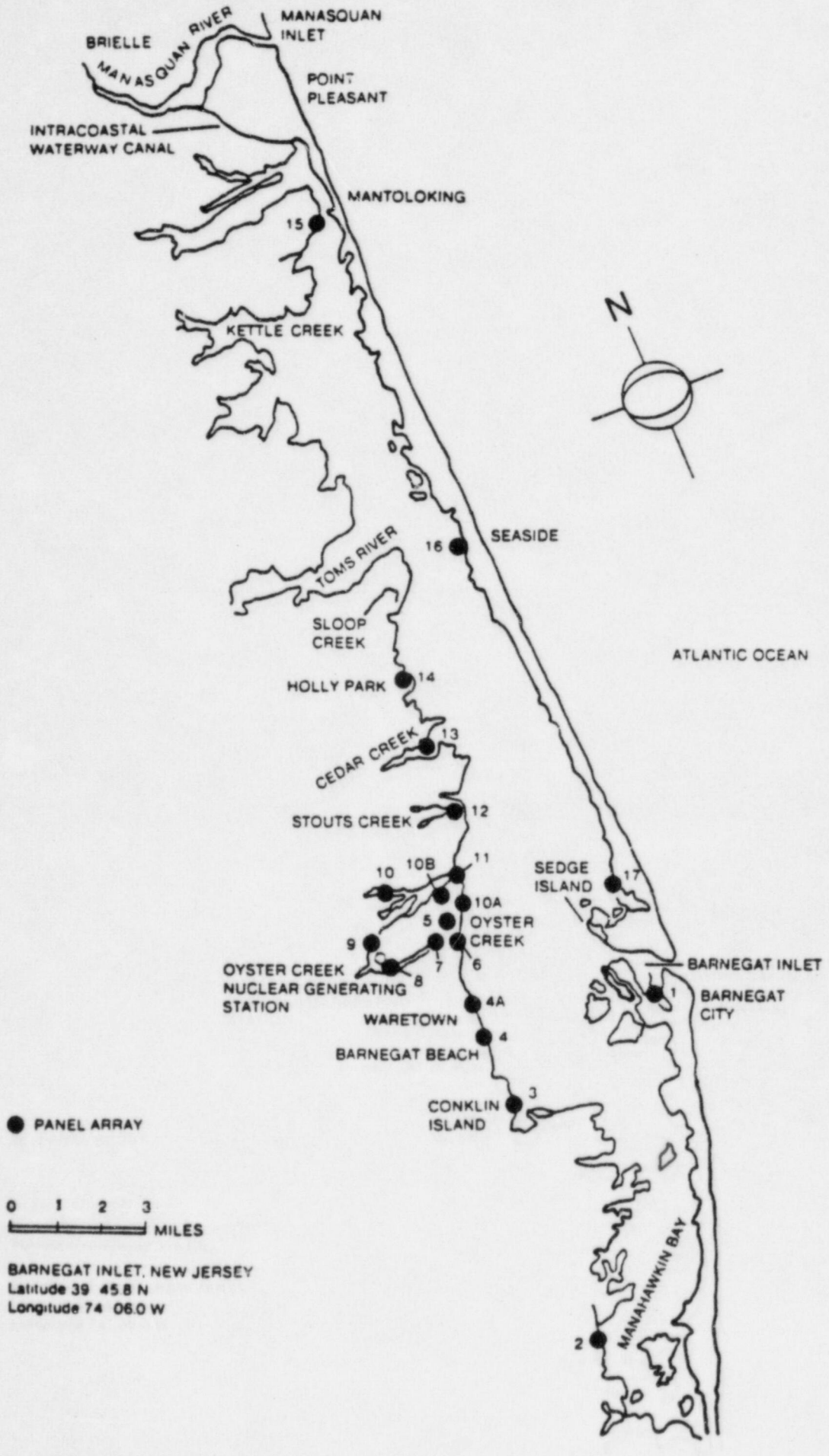

FIGURE 1. OUTLINE OF BARNEGAT BAY SHOWING GEOGRAPHIC LOCATIONS OF EXPOSURE PANELS

TABLE 1. GEOGRAPHICAL LOCATIONS OF BATTELLE NEW ENGLAND MARINE RESEARCH LABORATORY'S EXPOSURE PANEL ARRAYS IN BARNEGAT BAY, NEW JERSEY

Site No.	Site	Structure to be used for Suspension of Rack	Nearest Previous Data Stations	Approximate Latitude and Longitude
1.	Barnegat Coast Guard Station, Barnegat Inlet	Finger Pier Bulkhead	WC 1 WFCL 1948-1967	Lat. 39° 45.8'N Long. 74° 06.5'W
2.	Ashton Marina 1450 Bay Ave. Manahawkin	Bulkhead	WC 13, 14	Lat. 39° 40'N Long. 74° 13'W
3.	Iggie's Marina East Bay Ave. Barnegat (Conklin Island)	Bulkhead	WC 16, 17, 18, 19	Lat. 39° 45'N Long. 74° 12.5'W
4.	Liberty Harbor Marina Washington Ave. Waretown	Bulkhead	WC 21 R. Turner Rutgers U.	Lat. 39° 47'N Long. 74° 11'W
4-A*.	Holiday Harbor Marina Lighthouse Drive Waretown	Bulkhead	WC 21 R. Turner Rutgers U.	Lat. 39° 48'N Long. 74° 11'W
5.	Mouth of Oyster Creek, Lot 4, Compass Road Offshore End	Dock	WC 29, 30 Rutgers U.	Lat. 39° 48.5'N Long. 74° 10.3'W
6.	Oyster Creek 1 Lagoon, Inshore End 37 Capstan Drive	Dock		Lat. 39° 48.5'N Long. 74° 10.35'W

TABLE 1. (Continued)

Site No.	Site	Structure to be used for Suspension of Rack	Nearest Previous Data Stations	Approximate Latitude and Longitude
7.	Private Dock Dock Ave. Oyster Creek Sands Pt. Harbor Waretown	End of Dock	WC 27,28 R. Turner Rutgers U.	Lat. 39° 48.5'N Long. 74° 11.1'W
8.*	Oyster Creek Discharge Canal	Bulkhead 1500 ft. east of the R.R. bridge	WC 26	Lat. 39° 48.7'N Long. 74° 12'W
9.*	Forked River South Branch Intake Canal	Metal pier	WC 31	Lat. 39° 49.2'N Long. 74° 12.2'W
10.	Teds Marina Bay Ave. Forked River	Pier	WC 33, 34	Lat. 39° 50.1'N Long. 74° 11.6'W
10A*.	Private Dock 1217 Aquarius Ct. Forked River	Under Dock		Lat. 39° 49'N Long. 74° 10'W
10B*.	Private Dock 1307 Beach Blvd. Forked River	Under Dock		Lat. 39° 49.4'N Long. 74° 10.1'W
11.	Forked River (near mouth) 1413 River View Drive	Bulkhead	WC 35 Rutgers U.	Lat. 39° 49.7'N Long. 74° 10'W

TABLE 1. (Continued)

Site No.	Site	Structure to be used for Suspension of Rack	Nearest Previous Data Stations	Approximate Latitude and Longitude
12.	Stouts Creek 1273 Capstan Drive	Bulkhead	WC 38, 40, 41 R. Turner Wurtz Rutgers U.	Lat. 39° 50.5'N Long. 74° 08.8'W
13.	Rockmak's Yacht Basin Seaview Ave. Lanoka Harbor Cedar Creek	End of Pier	WC 46	Lat. 39° 52'N Long. 74° 09'W
14.	Dicks Landing Island Drive Bayville (Holly Park)	Pier	WC 49 R. Turner Nelson	Lat. 39° 54'W Long. 74° 08.1'W
15.	Winter Yacht Basin Inc. Rt. 528 Mantoloking Bridge	Pier	WC 57	Lat. 40° 02.5'N Long. 74° 04.9'W
16.	Berkely Yacht Basin J. Street Seaside	Pier	WC 60, 61	Lat. 39° 55.9'N Long. 74° 04.9'W
16A*.	Municipal Dock Seaside Heights	Pier	WC 60, 61	Lat. 39° 56.6'N Long. 74° 04.9'W
16B*.	Bayside Boats State Highway 35 and Bay Boulevard Seaside Heights, NJ	Pier	WC 60, 61	Lat. 39° 56.6'N Long. 74° 04.9'W

TABLE 1. (Continued)

Site No.	Site	Structure to be used for Suspension of Rack	Nearest Previous Data Stations	Approximate Latitude and Longitude
17.	Island Beach State Park (Sedge Island)	Pier	WC 68	Lat. 39° 47.1'N Long. 74° 05.9'W

All exposure panel racks suspended in a minimum water depth at mean low water of at least three feet. Racks hung with nylon line from existing structures so the bottom panels are close to, but not touching the bottom.

WC = Woodward-Clyde
WFCL = William F. Clapp Laboratories

* Site 4-A installed April, 1977.
Sites 10A, 10B installed April, 1978.
Site 16 discontinued November, 1981.
Site 16A installed December, 1981 - discontinued June, 1982.
Site 16B installed June, 1982.
Sites 8 and 9 moved from original locations November, 1983.

TABLE 2. INCIDENCE OF TEREDINIDAE IN PANELS REMOVED FEBRUARY 11-12, 1985

Station	Panel	No. of Specimens	Percent Filled	Size Range in mm.	Species Identification	Remarks
1	P	1800	99	<1-55	125 T. navalis, 1,675 Teredinidae*	
	C	0				
5	P	1	1	113	1 B. gouldi	
	C	0				
11	P	6	4	16-135	2 B. gouldi, 3 T. navalis, 1 Teredinidae*	Teredinidae with broken pallets
	C	0				
12	P	2	2	70-80	2 B. gouldi	
	C	0				
15	P	2	1	37-53	2 T. navalis	
	C	0				
17	P	3	<1	5-45	2 T. navalis, 1 Teredinidae*	
	C	0				

Stations 2-4A, 6-10B, 13, 14, and 16B - No Teredinidae present.

P = Long-term panel submerged August 13-14, 1984.
C = Short-term panel submerged January 14-15, 1985.
* = Not speciated due to size or condition.

TABLE 3. INCIDENCE OF TEREDINIDAE IN PANELS REMOVED MARCH 11-12, 1985

Station	Panel	No. of Specimens	Percent Filled	Size Range in mm.	Species Identification
1	P	1100	15	<1-60	75 T. navalis, 1,025 Teredinidae*
	C	0			
8	P	1	<1	12	1 T. navalis
	C	0			
11	P	1	<1	2	1 Teredinidae*
	C	0			
13	P	1	<1	1	1 Teredinidae*
	C	0			

Stations 2-7, 9-10B, 12, 14-17 - No Teredinidae present.

P = Long-term panel submerged September 10-11, 1984.
C = Short-term panel submerged February 11-12, 1985.
* = Not speciated due to size or condition.

TABLE 4. INCIDENCE OF TEREDINIDAE IN PANELS REMOVED APRIL 8, 1985

Station	Panel	No. of Specimens	Percent Filled	Size Range in mm.	Species Identification
1	P	3500	2	<1-5	3,500 Teredinidae*
	C	0			
8	P	1	<1	4	1 Teredo spp.*
	C	0			
11	P	6	<1	1-2	6 Teredinidae*
	C	0			

Stations 2-7, 9-10B, 12-17 - No Teredinidae present.

P = Long-term panel submerged October 8-9, 1984.
C = Short-term panel submerged March 11-12, 1985.
* = Not speciated due to size or condition.

TABLE 5. INCIDENCE OF LIMNORIA IN PANELS REMOVED FEBRUARY, MARCH, AND APRIL, 1985.

Station	Panel	February		March		April	
		No. of Tunnels	No. of Specimens	No. of Tunnels	No. of Specimens	No. of Tunnels	No. of Specimens
2	P	27	6	0		0	
	C	0		0		0	

Stations 1 and 3 through 17 - No Limnoria present.

P = Long-term panel, submerged 6 months.
C = Short-term panel, submerged 1 month.

TABLE 6. WATER QUALITY AT EXPOSURE PANEL STATIONS
FEBRUARY, 1985

Station	Date	Time	Depth in Feet	Salinity o/oo	Temperature (°C)	O_2 (mg/l)	pH
1	2/11/85	0904	5.5	31.1	1.0	11.4	7.8
2	2/11/85	0938	4.5	25.2	0.0	11.0	7.7
3	2/11/85	1004	1.5	22.8	-0.1	11.3	7.7
4	2/11/85	1022	3.5	27.2	1.0	10.8	7.7
4A	2/11/85	1038	2.0	26.0	0.5	11.3	7.8
5	2/11/85	1057	1.0	14.9	0.2	11.7	7.1
6	2/11/85	1106	1.5	20.2	1.0	10.5	7.3
7	2/11/85	1122	3.5	22.4	1.8	11.1	7.8
8	2/11/85	1140	2.0	17.4	1.8	10.7	7.4
9	2/11/85	1200	5.5	23.0	1.0	11.0	7.8
10	2/11/85	1404	4.0	21.8	2.5	11.1	7.7
10A	2/11/85	1308	1.5	23.0	2.3	10.9	7.8
10B	2/11/85	1325	3.0	24.5	3.0	10.4	7.8
11	2/11/85	1340	1.5	21.6	2.0	11.0	7.9
12	2/11/85	1527	2.5	20.3	3.7	10.9	7.5
13	2/11/85	1430	2.5	15.4	3.2	10.9	7.7
14	2/11/85	1452	3.5	19.3	2.1	10.8	7.7
15	2/12/85	0859	3.0	24.2	2.3	11.0	7.7
16B	2/12/85	0932	4.0	20.0	2.5	11.2	7.6
17	2/12/85	1000	1.5	26.1	4.0	10.0	7.7

TABLE 7. WATER QUALITY AT EXPOSURE PANEL STATIONS MARCH, 1985

Station	Date	Time	Depth in Feet	Salinity o/oo	Temperature (°C)	O_2 (mg/l)	pH
1	3/11/85	0923	7.5	31.8	6.6	9.6	7.7
2	3/11/85	0955	5.9	26.8	7.5	9.8	7.6
3	3/11/85	1022	2.6	26.9	8.9	9.8	7.5
4	3/11/85	1045	4.6	28.0	8.8	9.9	7.6
4A	3/11/85	1100	3.6	27.7	8.7	9.8	7.6
5	3/11/85	1115	2.6	25.8	12.8	9.9	7.6
6	3/11/85	1125	3.3	25.9	12.5	9.6	7.6
7	3/11/85	1137	3.9	25.7	13.7	10.0	7.6
8	3/11/85	1157	3.3	25.7	13.5	10.0	7.6
9	3/11/85	1215	6.9	26.1	8.0	10.1	7.6
10	3/11/85	1402	5.9	25.5	8.7	9.2	7.6
10A	3/11/85	1315	2.0	25.9	12.6	9.8	7.4
10B	3/11/85	1329	4.6	26.7	10.6	9.9	7.6
11	3/11/85	1340	3.0	26.8	9.0	10.7	7.7
12	3/11/85	1420	4.6	25.2	8.6	10.5	7.7
13	3/11/85	1445	4.3	23.2	9.9	10.7	7.7
14	3/11/85	1502	4.9	22.3	7.9	11.8	7.9
15	3/12/85	0915	3.9	21.1	8.0	9.6	7.7
16B	3/12/85	0945	5.3	18.0	7.8	9.7	8.0
17	3/12/85	1020	1.6	29.1	8.7	8.3	7.8

TABLE 8. WATER QUALITY AT EXPOSURE PANEL STATIONS
APRIL, 1985

Station	Date	Time	Depth in Feet	Salinity o/oo	Temperature (°C)	O_2 (mg/l)	pH
1	4/8/85	0908	7.2	29.5	9.5	8.6	7.7
2	4/8/85	0947	6.6	29.6	11.0	8.9	7.6
3	4/8/85	1012	2 3	27.2	11.2	8.8	7.6
4	4/8/85	1036	4 3	27.7	11.8	9.2	7.6
4A	4/8/85	1050	3.0	27.7	12.0	8.7	7.6
5	4/8/85	1102	2.3	26.5	13.7	8.9	7.6
6	4/8/85	1112	.9	26.5	13.6	8.6	7.6
7	4/8/85	1125	4.3	26.2	12.5	8.9	7.8
8	4/8/85	1140	4.3	26.3	12.2	8.9	7.7
9	4/8/85	1243	7.2	27.1	11.6	9.0	7.8
10	4/8/85	1359	5.9	26.2	12.1	8.3	7.6
10A	4/8/85	1300	3.3	26.8	12.5	9.1	7.8
10B	4/8/85	1318	4.9	26.9	12.5	8.9	7.7
11	4/8/85	1330	3.3	27.4	11.8	9.7	7.8
12	4/8/85	1408	4.9	25.5	11.4	9.8	7.9
13	4/8/85	1435	4.9	24.6	12.2	9.2	7.9
14	4/8/85	1455	5.6	24.2	11.4	9.0	7.8
15	4/9/85	0858	4.9	21.6	10.0	8.7	7.7
16B	4/9/85	0918	5.9	21.1	9.6	9.1	7.8
17	4/9/85	1002	3.0	29.9	7.2	8.1	7.8

TABLE 9. CONDITION OF GONADS OF TEREDINID BORERS REMOVED FROM EXPOSURE PANELS IN BARNEGAT BAY FROM JANUARY THROUGH MARCH, 1985

EA=Early active; LA=Late active; R=Ripe; PS=Partially spawned; NDG=No discernable gonad; S=Spent; M=Male; F=Female; H=Hermaphrodite

Specimen No.	Station	Month Removed	No. Months Exposed	Species	Sex	Gonad Condition	Comments
1479 a	12	Jan 85	6	Bankia gouldi	M	EA	Arrested Development
b				Bankia gouldi	M	EA	Arrested Development
1480	9	Jan 85	6	Bankia gouldi	M	EA	Arrested
1481	10A	Jan 85	6	Teredo navalis	F	LA	
1482 a	5	Jan 85	6	Bankia gouldi	M	EA	Arrested
b				Bankia gouldi	M	EA	Arrested
c				Bankia gouldi	M	EA	Arrested
1483	11	Jan 85	6	Teredo navalis	M	S	
				Teredo navalis	F	S	
				Teredo navalis	H	EA	
				Teredo navalis	H	S	
				Teredo navalis	M	S	
				Teredo navalis	F	S	
				Teredo navalis	F	S	
				Teredo navalis	M	S	
1484 a	11	Jan 85	6	Bankia gouldi	M	EA	Arrested
b				Bankia gouldi	M	EA	Arrested
c				Bankia gouldi	F	EA	Arrested

TABLE 9. (Continued)

Specimen No.	Station	Month Removed	No. Months Exposed	Species	Sex	Gonad Condition	Comments
1485 a	17	Jan 85	6	Teredo navalis	F	EA	
b				Teredo navalis	F	S	
1486	4A	Jan 85	6	Bankia gouldi	M	EA	Arrested
1487 a	12	Jan 85	12	Bankia gouldi			Special Panel, NDG
b				Bankia gouldi	M	EA	
c				Bankia gouldi	M	EA	
d				Bankia gouldi	F	EA	
e				Bankia gouldi	M	EA	
f				Bankia gouldi	M	EA	
g				Bankia gouldi	M	EA	
h				Bankia gouldi	M	EA	
i				Bankia gouldi	M	EA	
1488 a	11	Jan 85	12	Teredo navalis	H	LA	Special Panel
b				Teredo navalis	M	LA	
c				Teredo navalis	H	LA	
d				Teredo navalis	H	LA	
e				Teredo navalis	M	S	
1489 a	11	Jan 85	12	Bankia gouldi			Special Panel; NDG
b				Bankia gouldi			NDG
c				Bankia gouldi	M	EA	Arrested
d				Bankia gouldi	M	EA	Arrested
e				Bankia gouldi	M	EA	Arrested
f				Bankia gouldi	F	EA	Arrested
g				Bankia gouldi	F	EA	Arrested
h				Bankia gouldi	M	EA	Arrested

TABLE 9. (Continued)

Specimen No.	Station	Month Removed	No. Months Exposed	Species	Sex	Gonad Condition	Comments
1490 a	17	Jan 85	12	Teredo navalis	M	EA	Special Panel
b				Teredo navalis	M	EA	Arrested
1491 a	2	Jan 85	12	Teredo navalis	F	LA	
b				Teredo navalis	F	LA	
c				Teredo navalis	F	LA	
1492 a	12	Feb 85	6	Bankia gouldi	F	EA	Arrested Development
b				Bankia gouldi	F	EA	Arrested Development
1493 a	17	Feb 85	6	Teredo navalis	H	LA	
b				Teredo navalis	M	EA	
1494 a	15	Feb 85	6	Teredo navalis			NDG
b				Teredo navalis	H	LA	Arrested Development
1495 a	11	Feb 85	6	Bankia gouldi	M	EA	Arrested Development
b				Bankia gouldi	M	EA	Arrested Development
1496 a	11	Feb 85	6	Teredo navalis	M	S	
b				Teredo navalis	H	S	
c				Teredo navalis	M	EA	
1497	11	Feb 85	6	Teredinidae	H	EA	
1498	5	Feb 85	6	Bankia gouldi			NDG

TABLE 9. (Continued)

Specimen No.	Station	Month Removed	No. Months Exposed	Species	Sex	Gonad Condition	Comments
1499 a	1	Feb 85	6	Teredo navalis	H	LA	
b				Teredo navalis	H	LA	Arrested Development
c				Teredo navalis	H	LA	Arrested Development
d				Teredo navalis	F	LA	Arrested Development
e				Teredo navalis	F	LA	Arrested Development
f				Teredo navalis	H	LA	Arrested Development
g				Teredo navalis	M	S	
h				Teredo navalis	H	LA	
i				Teredo navalis	M	LA	
j				Teredo navalis	M	S	
k				Teredo navalis	F	LA	
l				Teredo navalis	M	LA	
m				Teredo navalis	H	LA	Arrested; Necrotic
n				Teredo navalis	H	LA	
o				Teredo navalis	H	LA	Arrested
p				Teredo navalis	H	PS	
q				Teredo navalis	F	LA	Arrested
1500	7	Feb 85	12	Bankia gouldi	M	EA	Special Panel
1501 a	12	Feb 85	12	Bankia gouldi			Special Panel; NDG
b				Bankia gouldi	M	EA	Arrested Development
c				Bankia gouldi	M	EA	Arrested Development
1502 a	11	Feb 85	12	Bankia gouldi	M	EA	Special Panel; Arrested
b				Bankia gouldi			NDG
c				Bankia gouldi	M	EA	
d				Bankia gouldi			NDG
e				Bankia gouldi			NDG
f				Bankia gouldi	M	EA	Arrested Development
g				Bankia gouldi			NDG
h				Bankia gouldi	M	EA	Arrested Development
i				Bankia gouldi			NDG

TABLE 9. (Continued)

Specimen No.	Station	Month Removed	No. Months Exposed	Species	Sex	Gonad Condition	Comments
1503 a	11	Feb 85	12	Teredo navalis	H	LA	Special Panel; Arrested
b				Teredo navalis	M	S	
c				Teredo navalis			NDG
d				Teredo navalis	M	LA	
e				Teredo navalis	H	S	
f				Teredo navalis	M	LA	
g				Teredo navalis	H	S	
h				Teredo navalis	M	S	
1504	17	Feb 85	12	Teredo navalis			Special Panel; NDG
1505	2	Feb 85	12	Teredo navalis	F	PS	Special Panel; Arrested
1506	8	Mar 85	6	Teredo navalis			NDG
1507 a	12	Mar 85	12	Bankia gouldi	M	EA	Special Panel
b				Bankia gouldi	M	EA	
c				Bankia gouldi			NDG
1508	12	Mar 85	12	Teredo navalis			Special Panel; NDG
1509 a	1	Mar 85	6	Teredo navalis	F	EA	
b				Teredo navalis	H	EA	
c				Teredo navalis	H	EA	
d				Teredo navalis	H	LA	
e				Teredo navalis	F	LA	
f				Teredo navalis	H	LA	
g				Teredo navalis	H	LA	
h				Teredo navalis	H	LA	

TABLE 9. (Continued)

Specimen No.	Station	Month Removed	No. Months Exposed	Species	Sex	Gonad Condition	Comments
1509 (Continued)							
i				Teredo navalis	M	EA	
j				Teredo navalis	F	LA	
k				Teredo navalis	M	EA	
l				Teredo navalis	F	EA	
m				Teredo navalis	F	EA	
n				Teredo navalis	H	EA	
o				Teredo navalis	F	EA	
p				Teredo navalis	M	EA	
q				Teredo navalis	M	EA	
r				Teredo navalis	H	S	
1510 a	11	Mar 85	12	Bankia gouldi	M	EA	Special Panel
b				Bankia gouldi	M	EA	
c				Bankia gouldi			NDG
d				Bankia gouldi	F	EA	
e				Bankia gouldi	F	EA	
f				Bankia gouldi			NDG
g				Bankia gouldi	F	EA	
h				Bankia gouldi	M	EA	
i				Bankia gouldi	F	EA	
j				Bankia gouldi			NDG
k				Bankia gouldi	M	EA	
1511 a	2	Mar 85	12	Teredo navalis	F	R	Special Panel
b				Teredo navalis	M	PS	
c				Teredo navalis	H	PS	
d				Teredo navalis	H	LA	
e				Teredo navalis	F	PS	

TABLE 9. (Continued)

Specimen No.	Station	Month Removed	No. Months Exposed	Species	Sex	Gonad Condition	Comments
1512 a	11	Mar 85	12	Teredo navalis	H	PS	Special Panel
b				Teredo navalis	H	PS	
c				Teredo navalis	F	R	
d				Teredo navalis	H	PS	
e				Teredo navalis	F	PS	
f				Teredo navalis	H	PS	
g				Teredo navalis	F	PS	
1513 a	17	Mar 85	12	Teredo navalis	M	PS	Special Panel
b				Teredo navalis	M	EA	

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