

WHOI-75-38

BENTHIC FAUNA OF THE GULF OF MAINE SAMPLED  
BY R/V GOSNOLD CRUISE 179 AND DSRV ALVIN  
DIVES 329, 330, 331 AND 404:  
INFAUNAL SPECIES LIST

by

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Woods Hole, Massachusetts 02543

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TECHNICAL REPORT

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#### ABSTRACT

Bottom samples were collected in the Gulf of Maine during July, 1971 and June, 1972 using DSRV ALVIN and RV GOSNOLD. The techniques and results are embodied in a paper entitled "Quantitative Biological Assessment of the Benthic Fauna in the Deep Basins of the Gulf of Maine" by G. T. Rowe, P. T. Polloni and R. L. Haedrich. Many of the conclusions made in that paper were based on summaries of the abundance of each benthic species of living invertebrate animal in each kind of sample, but those original data would not be accepted by the journal (JOURNAL OF THE FISHERIES RESEARCH BOARD OF CANADA) because the table was too long. The purpose of this technical report is to put those raw data in a form available (on request from the authors) to any interested ecologists.

The work was supported by ONR Contract N00014 - 66 - C00284 and NSF Grant GA 31235X.

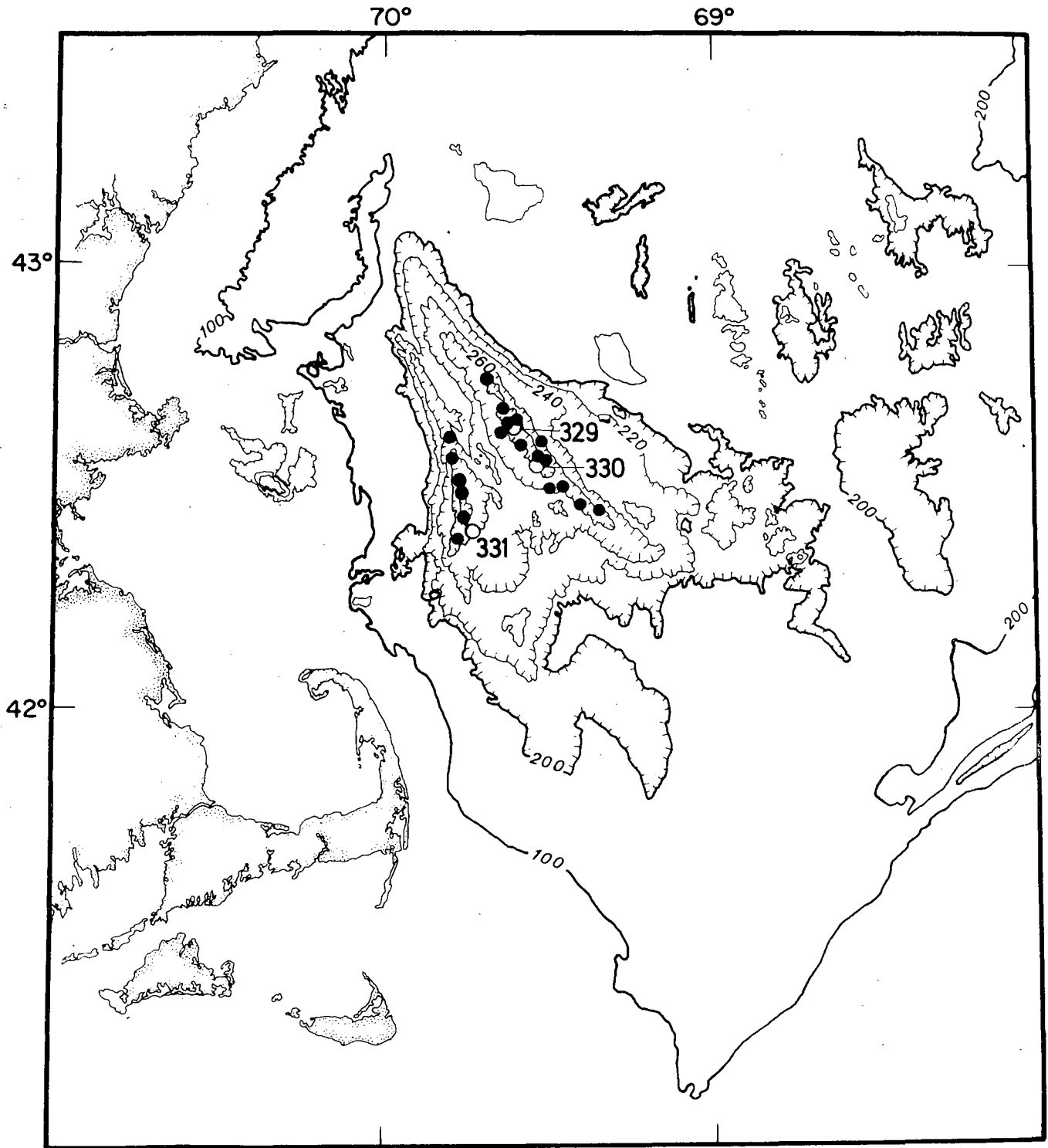


Figure 1. Distribution of samples in the Gulf of Maine. Solid circles represent van Veen grabs taken from R/V GOSNOLD and open circles are DSRV ALVIN dive sites. Dive 404 is at the same location as 329.

Table 1. Each column represents a different location and sample and each row represents the abundance of a particular species of invertebrate animal in each sample. Parts (a) and (c) contain data obtained from box cores and tube (core liner) cores which were placed into the bottom by DSRV ALVIN, whereas the data in part (b) came from van Veen grab samples taken from R/V GOSNOLD. All the samples were sieved through 0.42 mm mesh screen, fixed in 10% buffered formalin and sorted to species using a dissecting microscope.

Table 1a. Species data from box cores in the Gulf of Maine, by basin  
(Entries are number of specimens/0.02 m<sup>2</sup> sample.)

	Wilkinson			Murray		Wilkinson						
	329-2	330-1	330-2	331-1	331-2	404-1	404-3	404-4	404-5	404-7	404-8	404-9
<u>Paramphinome jeffreysii</u>	30	30	31	44	50	18	7	3	5	64	2	4
<u>Heteromastus filiformis</u>	30	11	7	14	20	31	25	5	14	11	3	12
<u>Ancistrostylis groenlandica</u>	4	11	15	8	10	7	5	4	18	2	2	2
<u>Ophelina abranchiata</u>	13	5	11	13	1	1	2	1	1	1		1
Hesionidae	3	4	5	13	21	1	2		2	2	4	
<u>Tharyx</u> sp.	8	12	7	5	4	4	3	2	2	1	1	1
<u>Siphonodentalium</u> sp.	14	3	6	11	1	4	2		1	4	1	
<u>Lumbrineris tenuis</u>	7	3	6	5	4	5	2	1	5	2		4
<u>Ceratocephale loveni</u>	5	6	8	3		2	4		4	5	2	2
<u>Paraonis gracilis</u>		6	3	3	1	2	2	3	1	4	7	1
<u>Cossura longocirrata</u>	2	2	4	2	1		3	4	2	5	4	4
<u>Paraonis lyra</u>	2	3		2	3	2	2	1	3	3		1
<u>Aricidea suecia</u>	3	2	4			2	3			2	4	
<u>Ampharete arctica</u>	2	3	5	3				1	1	3		1
<u>Nephtys incisa</u>	3	1	1	1		2				1		
<u>Ophiura</u> sp.	1	2		1		2		1	1			
<u>Diplocinus hirsutus</u>	1	2	1	1						1		1
<u>Yoldiella iris</u>		1		5			1					
<u>Thyasira equalis</u>	1		1	2						2		
<u>Sphaerosyllis brevifrons</u>	1			3			1		1			
<u>Lumbrineris latreilli</u>		1							1	3		1
<u>Protodorvillea minuta</u>			2			1						
Mytilidae				2			1					2
<u>Spiophanes kroveri</u>	3			1						1		
<u>Brisaster fragilis</u>				2			1				1	
<u>Eusyllis blomstrandii</u>		2			1							
<u>Leanira tetragona</u>	1	1					1					
<u>Alvania carinata</u>		3										
<u>Aricidea lyriformis</u>			1			1	1					
<u>Harpinia propingua</u>			1							1	1	
<u>Lumbrineris impatiens</u>				1		2						
Spionidae				2		1						
<u>Onuphis opalina</u>					1		2					
<u>Nuculana pernula</u>												2
Paraonidae					2							
<u>Erichthonius rubricornis</u>		2										
Polynoidea		2										
<u>Pholoe minuta</u>	1											
<u>Nereimyra punctata</u>		1										
<u>Arca pectunculoides</u>		1										
<u>Leptocheirus pinguis</u>		1										
Tanaidacea		1										
Asciacea			2	1						2	1	
Amphiuridae			1									
<u>Apistobanchus tullbergi</u>				1								
<u>Glycera capitata</u>				1								
<u>Cylichna</u> sp.				1								
<u>Amage tumida</u>				1								1
Isopoda					1							
<u>Microphthalmus</u> sp.						1						
<u>Antinoella angusta</u>						1						
<u>Maldanopsis elongata</u>								1				
<u>Terebellides stroemi</u>								1				
<u>Cuspidaria glacialis</u>								1				
<u>Nucula delphinodonta</u>								1				
<u>Paranaitis kosteriensis</u>									1			
<u>Cirolana borealis</u>									1			
<u>Dentalium occidentale</u>										1		
<u>Euchone</u> sp.											1	
<u>Tharyx marioni</u>											1	
<u>Dorvillea caeca</u>								1		1		
<u>Anthopa</u> ( <u>Cerianthus</u> )						1						
								1				

Total No. 135 122 122 152 121 91 74 23 47 140 35 40

Table 1b. Species from individual vanVeen samples in the Gulf of Maine, by basin.  
(Entries are number of species/0.15 m<sup>2</sup> sample.)

	Wilkinson												Murray					
	179-1	179-3	179-4	179-5	179-6	179-7	179-8	179-9	179-10	179-11	179-12	179-13	179-14	179-15	179-16	179-17	179-18	179-19
<i>Paramphinoe jeffreysii</i>	112	77	66	32	247	125	55	147	309	99	66	151	91	134	81	108	171	108
<i>Heteromastus filiformis</i>	97	37	33	41	129	93	55	125	154	66	35	121	57	132	43	78	97	51
<i>Ancistrosyllis groenlandica</i>	18	21	14	13	32	30	18	27	42	13	4	47	27	43	30	30	48	30
<i>Ophelina abbranchiata</i>	5	12	7	7	11	1	17	8	33	2	8	19	8	48	48	21	34	46
<i>Tharyx</i> sp.	10	1	4	3	19	24	17	15	24	7	12	11	15	9	13	5	5	11
<i>Lumbrineris tenuis</i>	8	8	4	4	10	11	15	13	29	15	8	10	6	14	17	6	9	9
<i>Paraonis gracilis</i>	14	1	4	10	20	13	7	16	11	5	5	7	8	5	11	5	4	19
<i>Ceratocephale loveni</i>	7	5	7	1	9	3	4	5	9	11	3	8	6	14	10	8	8	11
<i>Cossura longocirrata</i>	21	2	4	4	13	8	10	6	9	1	6	9	5	5	8	1	2	5
<i>Ampharete arctica</i>	1	1	1	3	2	2	1	5	14		3	3	20	37	9	8	3	4
<i>Siphonodentalium</i> sp.	4	4	7	1	15			1	20			1	19	25	17	1	14	14
Healionidae	2	1	3	4	8	1	3	3	15	2	1	2	15	16	10	1	10	13
<i>Thyasira equalis</i>	9	1	5	4	5	2	4	24	2		4	6	5	6	5	1	6	1
<i>Lumbrineris latreilli</i>	2		3	4	13	2	1	20	1		3	1	2	1	2	9	1	1
<i>Aricidea suecia</i>	1		2	3	4	1	4	3	7	1	2	1	7	6	4	6	3	1
<i>Nephtys incisa</i>	2		3	1	3	3	1	8	10	4	1	2	1	6	2	2	2	3
<i>Paraonis lyra</i>	2		1	1	2	1	3		6	2		2	6	8	8	4	1	1
<i>Diplocirrus hirsutus</i>			1	1	2	2	4	2	4		2	3	3	4	4		2	2
<i>Aricidea lyriformis</i>		3	1	3	3	1	1	1	2	3	1	2	1	3		2	1	1
<i>Harpinia propinqua</i>					1				3	1				2	3	2	2	3
<i>Halice</i> sp.											3						12	
Ophiuroid A	2			1	3	2	3		1	1			2					
<i>Spiophanes kroeyeri</i>					2		1		1		2			7	2			3
<i>Amphura</i> sp.		1	2			2		3	1		2		1		2			
Spionidae (Minuspio)						1	1		1				1	2	3	1	3	1
<i>Brisaster fragilis</i>	2	1			1	1	1				1	2	1	1	1	1	1	
<i>Yoldiella iris</i>				3				1	2			1	1					3
<i>Onuphis opalina</i>	1				1	1			5			1			1			
<i>Glycera capitata</i>		1		1	1	1						1	2					1
<i>Sphaerosyllis brevifrons</i>								1	2			1	2			3		1
<i>Pholoe minuta</i>		1	1			1		1	4			1	1		1		3	
<i>Leanira tetragona</i>								2	1		1	1				3	2	
<i>Erichthonius</i> sp.	1							4	1			5	1					
Ascidacea									5				4		1			1
<i>Antinella angusta</i>		1						1	3			1	1				1	1
<i>Maldanopsis elongata</i>										1		2	1	1			1	2
<i>Eusyllis blomstrandii</i>					1		1					1						
<i>Terebellides stroemi</i>												1		3		1		2
<i>Disoma watsoni</i>						1		1	1	1				1				
<i>Protodorvillea minuta</i>									2				2					1
Sabellidae						1		1					1					
<i>Glyphenostomum</i> sp.												2			1	1		
<i>Nereimyra</i> sp.									1			1						
Terebellidae						1		2										
<i>Euchone</i> sp.									1									
<i>Ampeleisca</i> sp.					1		1		2	2	1						1	
<i>Driloneria longa</i>					1													
Trichobranchidae																		1
<i>Sigalion</i> sp.			1															
<i>Scalibregma inflatum</i>							1											
<i>Amage tumida</i>												1						
Syllidae				1														
<i>Owenia fusiformis</i>											1							
<i>Dentalium occidentale</i>																		1
<i>Dulichia porrecta</i>						1			2				1	1				
<i>Casco bigelowi</i>											1						3	
<i>Leptocheirus pinguis</i>						1		1		1								
<i>Calocaris templemani</i>						1		1	2									
<i>Nuculana pernula</i>		2					1					2	1				1	
Tanaidacea			1		1													
Oedicerotidae															1			
Isopoda												1						
<i>Argissa hamatipes</i>																		1
<i>Hippomedon</i> sp.															1			
Ophiuroidea B						1												
Coelenterata ?	1	1																
Pennatulacea								1		1		1	1		1	1		
<i>Anthozoa</i> (Ceriantus)													1					
Ectoprocta													1					
<i>Alvania carinata</i>			1						1			1					1	
<i>Chlamys islandica</i>											1							
Mytilidae				1								1	3	1				
<i>Cylichna</i> sp.						1												
<i>Nucula delphinodonta</i>									2					1	2			
<i>Cuspidaria glacialis</i>									2									
<i>Arca pectunculoides</i>								1	1			1						
Total No.	322	182	176	140	561	340	227	411	788	244	169	415	340	549	340	309	436	356

Table 1c. Species data from coreliner samples in the Gulf of Maine, by basin.  
(Entries are number of specimens/0.003 m<sup>2</sup>.)

	Wilkinson				Murray						
	330-2	330-3	330-5	330-6	331-1	331-2	331-3	331-5	331-6	331-8	331-9
<u>Heteromastus filiformis</u>	5	1		2			3		1	2	
<u>Siphonodentalium</u>	2	2	5	1		4	1			1	3
<u>Paramphinome jeffreysii</u>	3		3		1	3	2				1
<u>Ophelina abbranchiata</u>	1	2	1	1			3			2	
<u>Ancistrosyllis groenlandica</u>	1		1		2	1		1			1
<u>Tharyx</u> sp.		2	1	1						1	1
Hesionidae	1	1									1
<u>Ampharete arctica</u>	1			1	1						
<u>Lumbrineris tenuis</u>					1		2				
<u>Ceratocephale loveni</u>		1			1						
<u>Cossura longocirrata</u>				2							
<u>Paraonis lyra</u>	1	1									
<u>Nephtys incisa</u>	1						1				
<u>Alvania carinata</u>											2
<u>Yoldiella iris</u>						2					
<u>Paraonis gracilis</u>			1								
<u>Aricidea suecia</u>								1			
<u>Spiophanes kroyeri</u>				1							
Ascidacea											1
<u>Thyasira equalis</u>	1	1									
<u>Leanira tetragona</u>	1										
<u>Sphaerosyllis brevifrons</u>		1									
<u>Glycera capitata</u>										1	
<u>Antinoella angusta</u>						1					
<u>Nucula delphinodonta</u>						1					
Dorvilleidae						1					
<u>Euchone</u> sp.							1				
<u>Nuculana pernula</u>											
Ophiuroidea											
<u>Dorvillea caeca</u>	1										
Mysidacea							1				
Diastylidae											1
Total No.	19	12	12	9	6	13	14	2	1	7	11

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Bottom samples were collected in the Gulf of Maine during July, 1971 and June, 1972 using DSRV ALVIN and R/V GOSNOLD. The techniques and results are embodied in a paper entitled "Quantitative Biological Assessment of the Benthic Fauna in the Deep Basins of the Gulf of Maine" by G. T. Rowe, P. T. Polloni and R. L. Haedrich. Many of the conclusions made in that paper were based on summaries of the abundance of each benthic species of living invertebrate animal in each kind of sample, but those original data		

(20. - continued)

would not be accepted by the journal (JOURNAL OF THE FISHERIES RESEARCH BOARD OF CANADA) because the table was too long. The purpose of this technical report is to put those raw data in a form available (on request from the authors) to any interested ecologists.