

DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
9/26/88	G100	21.4°C	PUETZ BAR	1/2 bu	4	0	0	33	5	MACRO CRAB DRILL WOOD PUNK	CLITHRA, light HYDROIDS ANOMIA, high to beam	Direct	LATE FLOOD TIME : 1008 WIND : N 8-10 : 1020 Seas mod 11-12' depth Dominant Fouling Hydrozoa
													Dustal counts #1 8 #2 14
													$\bar{X} = 11$

MB

DATE	BOTTOM SALINITY	BOTTOM TEMP. °C	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
9/28	6107	22.0	Hasehara Park	1/2 bu	34	103	33	6	5	no crabs	few mussels few barnacles	Orange	1125 hrs, 5.8 ft, light rain flood tide sws calm.
				1/2 bu	31	119	58	6	6				
				1/2 bu	28	125	59	9	8				

range 84

Sample # 1 340

2 416

3 424

$\bar{x} = 393.3$

340

416

434 ✓

31190 | 370.60

396.7

397

$\bar{x} = 393$

2/28

LJR

DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO.		NO.		PREDATORS	FOULING	METHOD	REMARKS
					MARKET	SMALL	SPAT	NO OLD BOXES				
9-28-88	G108	22.0	Point of Shoal	1/2 bu.	22	221	30	4	4		checked	Time: 1327 sea calm Depth: 6.5' Tide: flood Wind: light
				1/2 bu.	41	299	15	3	2			
				1/2 bu.	20	144	38	1	2			
				1/2 bu.	26	177	48	5	4			

273 546
 355 710
 202 404
 251 502

$\bar{x} = 540.5$

JR

DATE	BOTTOM SALINITY	BOTTOM TEMP. (°C)	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
9/27	6106	22.7	Long Rock	1/2 bu	12	74	43	8	10	mid crabs	few barnacles	checked	Time: 1400 Tide: flood Depth: 5.2' Wind: E light seas calm
				1/2 bu	12	93	23	5	6				
				1/2 bu	28	116	7	11	11				

- 1) 129 x 2 = 258
- 2) 128 x 2 = 256
- 3) 151 x 2 = 302

$\bar{x} = 272$

Range 46

DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
9/27	G105	22.8	Dry Shoal	1/2 bu	3	30	23	60	11		Barnacles (few)	dredge	Time: 1309 Tide: flood seas calm Depth: 7' Wind: E light
				1/2 bu	7	56	12	39	16				
				1/2 bu	6	44	15	43	8				

JR

1) $56 \times 2 = 112$
 2) $69 \times 2 = 138$
 3) $65 \times 2 = 130$

 $\Sigma = 380$
 $\bar{x} = 126$
 Range 26

DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
9/27	6104	22.4	wreck school off	1/2 bu	2	46	27	68	10	MUD CRABS	CLIONA - lt MUSSELS - lt.	dredge	Time: 1133 Wind: NE - light seas calm Tide: flood Depth: 10'
				1/2 bu	2	33	17	57	9				Time: 1222
				1/2 bu	4	55	22	54	12				Time: 1240
				1/2 bu	3	39	31	66	19				Sample #1 75 x 2 = 150 #2 52 x 2 = 104 #3 81 x 2 = 162 416 $\bar{x} = 138.7$ range 58

DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
9/27	6103	21.8	Thomas Pt. Rock	1/2 bu	1	46	9	38	21	MUD CRABS	MUSSELS, light BARNACLES, light CLIONA, M.D. Microciona, light	check	Time - 1042 wind - NE, 5-10 seas light. Depth - 9.5 Tide - Flood
				1/2 bu	1	31	6	44	15				Time 1056
				1/2 bu	0	31	20	49	13				Time 1105
													Sample #1 56 x 2 = 112 #2 38 x 2 = 76 #3 51 x 2 = 102 <hr/> 290 * 96.6 Range 36 Accepted: less than 100 count

JR

JR

DATE	BOTTOM SALINITY	BOTTOM TEMP °C	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
9/27	G102	21.5	Reussmann Pudof #1	1/2 bu	0	18	8	35	7	MUD CRABS	some Chloro Alumina	Analys	WIND - NE, 10 Flood TIDE seas med 10-11' depth 10 ⁰⁰
			#2	1/2 bu	1	15	4	27	3			↓	

Sample
 #1 26 x 2 = 52
 #2 20 x 2 = 40
 92
 X̄ = 46

Accepted, low count

DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
10/14	6119	20.8	9 in. px	1/2 m	0	26	127	35	10	Mud crabs	M. breckenra Bal. R. etc. Hydrozoa		wind ENE S sea light Sept 17-81 Time 1315 late ebbs close to low slack
PK				V	0	27	153	40	06				
				"	0	11	139	23	8			bridge	

Sample # 1 - 125 x 2 = 310
 # 2 - 180 x 2 = 360
 # 3 - 150 x 2 = 300
970

$\bar{x} = 323$
 range 60

	DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
PK	10/4/88	61.8	20.8	Palau Bar	Yabu	0	32	155	9	2	Moderate Callinectes	Microcena Hydrobia A. trancosa Mol gela	dredge	wind ENE 5 sea li sw depth 11-12 time 11 ³⁰ -12 ⁵⁵ late eb
				"	"	1	55	130	14	3				
				"	"	1	33	175	17	4				

Microcena was common

1/2 bushel counts
Sample # 1 - 187

2 - 185

3 - 208

580
bushel

$\bar{x} = 193 \frac{1}{2} = 386$

range 23 [387]

374

370

416

1160

$\bar{x} = 386.6$

387

DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
10/4 10/4/88	5-117	20.2	Bunton Bar	1/2 bushel	0	0	83	5	1	Wood peck mud crabs	Micociona, heavy Hydriles, heavy Molgusa Ovep. planum		10/4 late ebb depth 11-12' Went ENE 15-20 Seas rough
PK					0	1	56	3	0		Crep. (folds) Eg. pouches Pyrosoma m. crust.		
-					0	2	40	7	1				Hydriles Amaran. Poulvi degarium
												shells	<p>Sample # 1 83 x 2 = 166</p> <p># 2 57 x 2 = 114</p> <p># 3 42 x 2 = 84</p> <hr/> <p>364</p> <p>x = 121.3</p> <p>Range 82</p>

DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
10/3/88 10:15 AM	51.3	21.8	Bowlers Rock	1/2 bu	7	68	2	4	1	Large volume of cinder	Some Malsva Brachidontes Marenzelleri Balanus crenatus	Depth 7.5 ft. Cloudy Sky Wind N 10-15 knots Tide: Ebb	Seas mod.
Rapp 10:50 AM				1/2 bu	6	35	3	3	0	Large volume of cinder		dredge	
				1/2 bu	23	48	4	1	0	Large volume of cinder			
				1/2 bu	16	40	2	0	0				

$77 \times 2 = 154$
 $44 \times 2 = 88$
 $75 \times 2 = 150$
 $58 \times 2 = 116$

DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
10/3/88 11:15 AM	G114	21.8	Morattico	1/2 bu	19	28	1	5	0		Light Barnacles Brachiopods	Dredge	TD's 27447.0 41820.0 Tide: Ebbs Cloudy Sky, Rai Depth: 12 ft Wind: Light N Seas: mod.
Rapp				1/2 bu	21	16	0	12	0				
11:45 AM	G114	21.8		1/2 bu	9	5	0	6	0				

48 x 2 = 96
37 x 2 = 74
14 x 2 = 28

DATE	BOTTOM SALINITY	BOTTOM TEMP.	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
10/3/88	6115	21.8	Smoky Pt.	1/2 bu	1	5	11	17	0	Very	Light barnacles and Halysidota	check	Cloudy, Rain Tides: Ebb Light wind 10-15 Knot N Depth: 12 ft Seas: Mod.
12:15 PM				1/2 bu	3	4	19	15	1				
12:40 PM				1/2 bu	9	22	12	2	0				

$17 \times 2 = 34$
 $26 \times 2 = 52$
 $43 \times 2 = 86$

DATE	BOTTOM SALINITY	BOTTOM TEMP. °C	REEF	SAMPLE SIZE	NO. MARKET	NO. SMALL	NO. SPAT	NO. OLD BOXES	NO. NEW BOXES	PREDATORS	FOULING	METHOD	REMARKS
9/30	6109	22.0°C	Bread Creek #1	2 m	∅	58	46	18 (+1 goner)	4	MUD CRABS	BRYZOA - A BRANACLES MUSSELS Molgula mod to heavy		27329.1 41698.2 Dep: 11-15' Tide: Slack Wind: light, calm Time: 1020 Seas: calm
			#2	2 m	∅	26	58	15	3		Hydrozoa	check	
			#3	2 m	∅	41	62	18	4				

1/2 hr 1 hr
 126 252
 Sample #1 - 104 x 2 = 208
 #2 - 84 168
 #3 - 103 206
 586
 X = 194
 Range 40

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Piscamoke	10/14	G123	16.0°C	P.B. #9	1/2 bu	1	3	7	18	1	none	Nereis, med barnacles membranopora Hydroides		1310 7 1/2' depth late flood BLW 10-15 seas med 40% black shell, no odor Nereis dominant fouling org.
				"	1/2 bu	0	1	2	4	0	none	see above emments		Sample # 1 11x2 = 22 # 2 3x2 = 6 range 16 $\bar{x} = 14$

LAB INFORMATION :

1263

Technician name ----- JMV
 Time ----- 10:38:53
 Date ----- 10/14/1988
 Cal H2o Type ----- standard
 Std H2o Cond Ratio --- 1.00000
 Cal Temp ----- 16.1
 Temp Com Dial ----- 635
 Std Ratio Dial ----- 677.8
 Results to -----
 Note -----

FIELD INFORMATION :

Technician name --- Whitcomb
 Sample Date/Time -- 10/11/88
 Project ID ----- 111001
 River name ----- James
 Station name ----- Fall Survey

Ratio	Temperature	Salinity	Bottle Number
0.67580	16.50	22.65	g100
0.68860	16.50	23.13	g101
0.68110	16.50	22.95	g102
0.66810	16.50	22.37	g103
0.64250	16.50	21.43	g104
0.62450	16.50	20.77	g105
0.59310	16.50	19.62	g106
0.44500	16.50	14.33	g107
0.48980	16.50	15.91	g108
0.57030	16.50	18.80	g109
0.57000	16.50	18.79	g110
0.56600	16.50	18.64	g111
0.55420	16.50	18.22	g112
0.44610	16.50	14.37	g113
0.50900	16.50	16.60	g114
0.52430	16.50	17.14	g115
0.55010	16.50	18.07	g116
0.58330	16.50	19.27	g117
0.57350	16.50	18.91	g118
0.56670	16.50	18.67	g119
0.55550	16.50	18.26	g120
0.55570	16.50	18.27	g121
0.54840	16.50	18.01	g122
0.58180	16.50	19.21	g123
0.60630	16.50	20.10	g124

SUMMARY, FALL 1988 OYSTER BAR SURVEY

BAR	OYSTERS			BU. COUNT	\bar{X} COUNT	GAPER	BOXES		PRED.	FOULING	BOTTOM		TIME	TIDE	\bar{X} DEPTH	LORAN COORD.	OBSERVATIONS SAMPLE PREC., ETC.	
	MKT	SM	SPAT				REC	OLD			°C	/oo						
oct. 3 Smokey Pt.	2	10	22	34		0	0	34	none	Molgula, barnacles	21.8	17.1	1215	Max ebb	12'	27418.1	Wind N 10-15	
	6	8	38	52		0	2	30								41779.9	Seas mod.	
oct. 3 Hog House	18	44	24	86	57	0	0	4										
	0	0	16	16		0	0	14	none	Molgula, anemones	21.8	18.1	1300	Late ebb	15'	27398.3	Wind N 10-15	
	0	2	14	16		0	0	6								41725.8	Seas mod.	
9/30 Drumming Gnd.	0	6	10	16	16	0	0	24									Black shell abund	
	0	16	28	44		0	6	10	oyster drill	Microciona, Molgula; heavy	22.0	18.6	1250	Max flood	11'	27377.8	Wind E light	
9/30 Parrot Rk.	2	12	40	54	49	0	2	14	mud crabs								41738.1	Seas calm
	2	50	68	120		0	6	20	mud crabs	Molgula, heavy	22.8	18.8	1230	Early flood	9'	27361.9	Wind E light	
	0	28	62	90		0	2	6		mussels, barnacles							41710.4	Seas light
	0	30	84	114	108	0	4	20									41710.4	Black shell 40-50%
9/30 Broad Ck.	0	116	92	208		0	8	36	mud crabs	Molgula,	22.0	18.8	1020	Low slack	15'	27329.5	Wind light	
	0	52	116	168		0	6	30		bryozoan; heavy							41696.3	Seas calm
	0	82	124	206	194	0	8	36		Hydroides, mussels, barnacles								
CORROTOMAN R.																		
9/30 Middle Gnd.	0	28	70	98		0	0	36	none	none	22.5	18.2	1330	Max flood	11'	27386.2	Wind SSW light	
	0	14	38	52	75	0	0	14									41763.0	Seas calm Shells planted here since last sample
GR. WICOMICO																		
oct. 7 Haynie Pt.	0	172	552	724		0	4	28	mud crabs	barnacles,	18.0	18.0	1258	Max ebb	10'	27366.4	Wind NE 10-15	
	2	224	396	622		0	10	40		algae							41871.4	Seas mod.
	2	288	454	744	697	0	16	42										
oct. 7 Whaleys' E.	0	4	160	164		0	2	0	none	none	18.1	18.3	1150	Early ebb	11'	27361.0	Wind NE 15	
	0	2	198	200	182	0	2	0									41866.7	Seas mod. Shells planted here since last sample

