1947

Weekly oyster spatfall on shellbags, 1947, in the James River seed area

J. D. Andrews
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WEEKLY OYSTER SPATFALL ON SHELLBAGS, 1947

IN

THE JAMES RIVER SEED AREA

DATA SHEETS FOR

THREE STATIONS MONITORED WEEKLY

Nansemond Ridge (in Hampton Roads)

Wreck Shoal

Deep Water Shoal

JAY D. ANDREWS

VIRGINIA INSTITUTE OF MARINE SCIENCE

JAMES RIVER SEED AREA

Weekly Spatfall in Quarter-Bushel Shellbags, 1947

Nansemond Ridge, Wreck Shoal, and Deep Water Shoal

(18 May to 8 November 1947)

Twenty clean (washed), unfouled, flat valves were paint marked, shaken in a washtub with filler shells to distribute evenly and poured into a one-inch mesh, chicken wire bag (2 ft. wide roll of wire made into shellbags 10 to 12 inches in diameter). These bags were laid flat on the bottom with a rope attached to a stake. Duplicate bags were exposed weekly in the early years.

The shell bags were exposed for 7 days usually, and after drying, spat were counted on the smooth inner face only. The shells were selected for uniformity of size at about 3 inches. These counted about 600 per bushel. To determine total counts per bushel for comparison with natural cultch, counts were doubled to get spatfall per shell and multiplied by 30 to approximate a bushel measure.

Newly-set barnacles were counted individually but bryozoans were counted by colonies which were small and discrete after only one week of exposure.

The sample numbers refer to brass tags on the shellbags for identity by stations.

The angle of shells to currents is randomized in shellbags, which accounts for wide variations in number of spat per shell.

Jay D. Andrews

J. D. Andrews

JAY DONALD ANDREWS

Weekly Spat Strike -- Nansemond Ridge - 1947.

(In Shellbags)

Dates set	Days set	Number of spat per bushel			Number of spat per shell	Spat per day per shell
		Station 1	Station 2	Average		
23 May - 30 May	7	0	0	0	0	0
30 May - 12 June	13	0	0	0	0	0
12 June - 19 June	7	0	0	0	0	0
19 June - 27 June	8	60	0	30	0	0
27 June - 3 July	6	0	0	0	0	0
3 July - 11 July	8	60	0	30	0	0
11 July - 18 July	7	480	240*	360	.60	.09
18 July - 25 July	7	900	480	690	1.15	.16
25 July - 31 July	6	1,560	720	1,140	1.90	.32
31 July - 8 Aug.	8	2,460	960	1,710	2.85	.36
8 Aug. - 15 Aug.	7	14,040	9,900	11,970	19.95	2.85
15 Aug. - 22 Aug.	7	17,520	23,160*	20,340	33.90	4.84
22 Aug. - 29 Aug.**	7	4,380	2,280	3,330	5.55	.79
29 Aug. - 4 Sept	6	13,140	11,160	12,150	20.25	3.37
4 Sept - 12 Sept	8	8,460	8,880	8,670	14.45	1.81
12 Sept - 19 Sept	7	5,040	7,560	6,300	10.50	1.50
19 Sept - 27 Sept	8	1,380	780*	1,080	1.80	.23
27 Sept - 2 Oct.	5	240	120	180	.30	.06
2 Oct. - 10 Oct.	14	60	180	120	.20	.014
10 Oct. - 24 Oct.	8	0*	0*	0	0	0
24 Oct. - 6 Nov.	13	0*	0*	0	0	0

*counted by Treakselt

** Shells were muddied - see Wreck Shoal for this week. JDA

Spat Strike - Nansemond Ridge - 1947. JAY DONALD ANDREWS

Compilation of strike data to show accumulative potential set of spat after certain dates - based on counts of weekly spat strikes.

Week beginning	No. of setting days	Station 1	Station 2	Average	Number of spat per shell	Percentage of total set
11 July*	83	69,600	66,240	67,920	113.20	100.0 %
18 July	76	69,120	66,000	67,560	112.60	99.5 %
25 July	69	68,220	65,520	66,870	111.45	98.5 %
31 July	63	66,660	64,800	65,730	109.55	96.8 %
8 Aug.	55	64,200	63,840	64,020	106.70	94.3 %
15 Aug.	48	50,160	53,940	52,050	86.75	76.6 %
22 Aug.	41	32,640	30,780	31,710	52.85	46.7 %
29 Aug.	34	28,260	28,500	28,380	47.30	41.8 %
4 Sept	28	15,120	17,340	16,230	27.05	23.9 %
12 Sept	20	6,660	8,460	7,560	12.60	11.1 %
19 Sept	13	1,620	900	1,260	2.10	1.9 %
27 Sept	5	240	120	180	.30	.3 %
2 Oct.	0	0	0	0	0	0

*No spat were found on shells placed in the water prior to July 11, 1947.

JAY DONALD ANDREWS

Weekly Spat Strike -- Wreck Shoal - 1947.

(In Shellbags)

Dates set	Days set	Number of spat per bushel			Number of spat per shell	Spat per day per shell
		Station 3	Station 4	Average		
21 May-28 May	7	0	0	0	0	0
28 May-10 Jun	13	0	0	0	0	0
10 Jun-18 Jun	8	0	0	0	0	0
18 Jun-25 Jun	7	0	0	0	0	0
25 Jun-1 Jul	6	0	0	0	0	0
1 Jul-9 Jul	8	0	0	0	0	0
9 Jul-16 Jul	7	2,700	2,040	2,370	3.95	.56
16 Jul-23 Jul	7	1,080	1,800	1,440	2.40	.34
23 Jul-30 Jul	7	7,260*	4,680	5,970	9.95	1.42
30 Jul-6 Aug	7	7,560	10,500*	9,030	15.06	2.15
6 Aug-14 Aug	8	16,680	17,460*	17,070	28.45	3.56
14 Aug-21 Aug	7	34,020*	33,960	33,990	56.65	8.09
21 Aug-28 Aug	7	37,440	37,740*	37,590	62.65	8.95
28 Aug-5 Sept	6	44,880	27,660*	36,270	60.45	10.07
3 Sept-11 Sept	8	19,200*	33,300	26,250	43.75	5.47
11 Sept-18 Sept	7	15,060	6,540*	10,800	18.00	2.57
18 Sept-26 Sept	8	6,900	3,300*	5,100	8.50	1.06
26 Sept-2 Oct	6	3,160*	2,440	2,300	3,83	.64
2 Oct-9 Oct	7	120	0*	60	.1	.01
9 Oct-17 Oct	8	0	60*	30	0	0
17 Oct-23 Oct	6	0*	0*	0	0	0
23 Oct-6 Nov	14	0*	0*	0	0	0

*counted by Tresselt.

Spat Strike - Wreck Shoal - 1947. JAY DONALD ANDREWS

Compilation of strike data to show accumulative potential set of spat after certain dates - based on counts of weekly spat strikes.

Week beginning	No. of setting days	Number of spat per bushel			Number of spat per shell	Percentage of total set
		Station 3	Station 4	Average		
9 Jul.*	85	195,140	181,420	188,280	313.81	100.0 %
16 Jul.	78	192,440	179,380	185,910	309.86	98.7 %
23 Jul.	71	191,160	177,580	184,370	307.29	97.8 %
30 Jul.	64	183,900	172,900	178,400	297.34	94.8 %
6 Aug.	57	176,340	162,400	169,370	282.28	90.0 %
14 Aug.	49	159,660	144,940	152,300	253.83	80.9 %
21 Aug.	42	125,640	110,980	118,310	197.18	62.8 %
28 Aug.	35	88,200	73,240	80,720	134.53	42.9 %
3 Sept.	29	43,320	45,580	44,450	74.08	23.6 %
11 Sept.	21	24,120	12,280	18,200	30.33	9.7 %
18 Sept.	14	9,060	5,740	7,400	12.33	3.9 %
26 Sept.	6	2,160	2,440	2,300	3.83	1.2 %
2 Oct.	0	0	0	0	0	0

*No spat were found on shells placed in the water prior to July 9, 1947.

This table shows about 5% of the potential strike set in July, 70% in August, and 25% in September. Unless there was a highly favorable survival rate for the July set (the reverse appears to be true) it seems that the July set was a negligible factor in the 1947 strike. Eighty percent of the total potential strike occurring after the middle of August.

There were approximately eighty-five (85) days in the 1947 summer season when spat set on shells at Wreck Shoal.

Weekly Spat Strike — Deep Water Shoals - 1947.
(In Shellbags)

Dates set	Days set	Number of spat per bushel			Number of spat per shell	Spat per day per shell
		Station 5	Station 6	Average		
21 May -29 May	8	0	0	0	0	0
29 May -11 June	13	0	0	0	0	0
11 June-18 June	7	0	0	0	0	0
18 June-26 June	8	0	0	0	0	0
26 June-2 July	6	--	0	0	0	0
2 July-10 July	8	0	0	0	0	0
10 July-17 July	7	0	180	90	.15	.02
17 July-24 July	7	120	0	60	.1	.01
24 July-30 July	6	300*	180	240	.4	.07
30 July- 8 Aug.	9	2,520	1,740*	2,130	3.55	.39
8 Aug.-14 Aug.	6	540	1,080*	810	1.35	.23
14 Aug.-21 Aug.	7	840	1,140*	990	1.65	.24
21 Aug.-28 Aug.	7	6,540	2,940*	4,740	7.90	1.13
28 Aug.- 4 Sept	7	6,840	3,060*	4,950	8.25	1.18
4 Sept-11 Sept	7	3,720	3,180*	3,450	5.75	.82
11 Sept-18 Sept	7	600	480*	540	.9	.13
18 Sept-26 Sept	8	780	360*	570	.95	.12
26 Sept- 2 Oct.	6	300*	120	210	.35	.06
2 Oct.- 9 Oct.	7	0	60*	30	0	0
9 Oct.-17 Oct.	8	0	0*	0	0	0
17 Oct.-23 Oct.	6	0*	0*	0	0	0
23 Oct.- 6 Nov.	14	0*	0*	0	0	0

*counted by E. Treeselt

Spat Strike - Deep Water Shoals - 1947.

Compilation of strike data to show accumulative potential set of spat after certain dates - based on counts of weekly spat strikes.

Week beginning	No. of setting days	Station 5	Station 6	Average	Number of spat per shell	Percentage of total set
10 July*	84	23,100	14,460	18,780	31.30	100.0 %
17 July	77	23,100	14,280	18,690	31.15	99.5 %
24 July	70	22,980	14,280	18,630	31.05	99.2 %
30 July	64	22,680	14,100	18,390	30.65	97.9 %
8 Aug.	55	20,160	12,360	16,260	27.10	86.6 %
14 Aug.	49	19,620	11,280	15,450	25.75	82.3 %
21 Aug.	42	18,780	10,140	14,460	24.10	77.0 %
28 Aug.	35	12,240	7,200	9,720	16.20	51.8 %
4 Sept	28	5,400	4,140	4,770	7.95	25.4 %
11 Sept	21	1,680	960	1,320	2.20	7.0 %
18 Sept	14	1,080	480	780	1.30	4.2 %
26 Sept	6	300	120	210	35	1.1 %
2 Oct.	0	0	0	0	0	0

*No spat were found on shells placed in the water prior to July 10, 1947.

← Weekly, Oyster Spatfall on Brown Shoal, 1947 in The James River Seed Area

Data on 20 to 40 Shellfaces from Quarter-Bushel Shellbags

18 May to 8 November, 1947

Jay D. Andrews
VIMS

JAY DONALD ANDREWS
"Counter"

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 18-24 May 1947

Period set 21-28 May — Type of shell Quinn's 600 per bu - factor 30

Sample No. 1 — Stake No. 1 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	None		No. per bu.
			Av. size
Fouling organisms	Barnacles	185 117 6 22 11 2 19 3 0 2 (367) 5 4 12 0 6 2 1 5 4 1 (40) = 407	No. per bu. 24,420
	Bryozoa		No. per bu.

additions & calculations by C.M.C.L.

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground *Nansemond Ridge* Week of *18-24 May* 194*7*

Period set *23-30 May* Type of shell *Quinns (600 per bu.)* *Factor 30*

Sample No. *5* Stake No. *1* Size of sample counted *20* shells *inside shell - factor of 2*

Oyster	*None*		No. per bu.
spat			Av. size
Fouling organisms	Barnacles	*Av. = 16 per shell* *12/1/1/17/3/44/25/6/16/6/14/1/53/1/1/12/1/50/0/57 = 321*	No. per bu. *19,260*
	Ostracods	*1 = 1*	*60*
	Amphipods	*1 / 1 = 2*	No. per bu. *120*
	Isopods	*3 / 1 / 6 / 1 / 2 = 13*	*780*
	Copepods	*11 / 2 / 1 / 12 = 26*	*1,560*

See sample No. 6 for remarks

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WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 18-24 May 1947

Period set 23-30 May — Type of shell Quinn's (600 per bu) Factor 30

Sample No. 6 — Stake No. 2 — Size of sample counted 20 shells Inside only - Factor of 2

Oyster spat	None		No. per bu. _____ Av. size _____
Fouling organisms	Barnacles	3/6/13/9/1/12/0/0/9/4 (57) / 3/11/6/15/1/5/7/1/10/4 (74) Av. 7.6 per shell = 151	No. per bu. 9,060
			No. per bu.

* Several Isopods on shell size of barnacles. Many shells had a large no. of small roundish areas covered with sand. The spots appeared to have a stichy base to which sand particles had stuck

JAY DONALD ANDREWS _____

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 8-14 Jun 1947

Period set 1100 May 30 - 0950 Jun 12 Type of shell Quinn's (600 per bu) Factor 30

Sample No. 11 Stake No. 1 Size of sample counted 20 shells inside only - factor of 2

Oyster spat	None			No. per bu. _____ Av. size _____
Fouling organisms	Barnacles	0/3/0/1/0/3/0/4/2/0 (13)	79/8/2/1/1/0/0/7/23/2 (123) Av. 6.8 per shell	= 136 No. per bu. 8,160
	Serpulids	1 (1)		= 1 No. per bu. 60
	Sponge spots	4/4/2/1/0/0/3/0 (14)	2/0/2/2/0/2/2/2 (12)	= 26 1,560
	Crepidula	1/1 (2)	1 1 (2)	= 4 240

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 8-14 Jun 1947

Period set 1100 May 30 - 1030 Jun 12 — Type of shell Quinni's (600 per bu) — Factor 30

Sample No. 12 — Stake No. 2 — Size of sample counted 20 shells inside only - factor of 2

Oyster spat	None			No. per bu.
				Av. size
Fouling organisms	Barnacles	2/5/3/11/2/26/27/24/2/1 (103)	11/4/13/9/2/7/3/18/13/4 (84) Av. 9.4 per shell = 187	No. per bu. 11,220
	Serpulids	1/ (1)	1 1 (2) = 3	No. per bu. 180
	Sponge spots	1/0/1/2/ (4)	3 2 (5) = 9	540
	Bryozoan colonies	1/ 1 (2)	= 2	120

V-11-47

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 15-21 June 1947

Period set 1000 Jun 12 to 1100 Jun 19 — Type of shell Quinnis (600 shells per bu.) Factor 30

Sample No. 17 Stake No. 1 Size of sample counted 20 shells Inside of shell only Factor of 2

		Top	Bottom	
Oyster spat		None		No. per bu. / Av. size
Fouling organisms	Barnacles	0/4/1/1/0/4/4/0/0/0 (14)	0/0/1/0/3/1/4/2/1/1 (13) Av. 1.4 per shell = 27	No. per bu. 1,620
	Sponge spots	2/5/0/11/8/8/2/6/3/0 (45)	1/1/0/2/4/3/14/0/7/7 (39) Av. 4.2 per shell = 84	No. per bu. 5,040
	Serpulids Sabellids	4	1	
	Bryozoa colonies		1	

Fish eggs on shells (Gobiesox.?) III

A no. of young drills are found sticking on the shells. Shells facing out on the outside of the bag seem to get the best set of barnacles & spong spots.

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 8-14 June 1947

Period set 1030 Jun 12 - 1220 Jun 19 Type of shell Quinn (600 per shell) LARGE

Sample No. 18 Stake No. 2 Size of sample counted 20 shells inside only Factor 30 factor 2

Oyster spat	None		No. per bu.
	(Spicules) BRISTY Sponge 0 0 0 0 0 0 0 0		Av. size
Fouling organisms	Barnacles	0 0 0 0 0 1 0 2 0 6 (9) 0 1 1 1 0 1 0 0 0 1 (5) = 14	No. per bu. 840
	SERPULIDS	0 0 0 0 0 0 0 0 Crepidula 1/	No. per bu.
	Red Sponge Spots	0 0 0 0 0 0 0 0 0	
	Bryozoan Colony	0 0 0 0 0 0 0 0 0	

M.E.L.

JAY DONALD ANDREWS _____

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of JUNE 22-28 1947

Period set 19 JUNE to 27 Jun Type of shell Gums (600 per bu) Factor 30

Sample No. 23 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	0,0,0,1 ↑ No 4 = 350		No. per bu. 60
			Av. size _____
Fouling organisms	Barnacles	1 1 0 1 0 0 1 0 1 ⑤ 0 1 1 0 1 0 0 ③ = 8	No. per bu. 480
	SPONGE SPOTS	0 0 0 0 1 0 ① = 1	No. per bu. 60
	BRYOZOA	0 0 0 1 0 1 ② Membranipora 1 ① = 3	180
	Serpulids	2 ② 1 ① = 3	180

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of JUNE 22-28 1947

Period set 19 JUNE - 27 June — Type of shell Quinni (600 per bu) Factor 30

Sample No. 24 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

				No. per bu.
Oyster spat	None			No. per bu.
				Av. size
Fouling organisms	Barnacles	2/0/0/0 0/0/0/0/0/2	④ = 16 = 0 2 2 0 3 2 0 0 2 ⑫ 1	No. per bu. 960
	Sponge spot	1/8/10/0	⑲ = 21 = 1 0 0 0 0 0 1 0 0 ② 0	No. per bu. 1,260
	BRYZOA		⓪ = 2 2 0 0 0 0 0 0 0 0 ② 0	120
	SERPULIDS	1 1	② = 5 0 0 3 0 0 0 0 0 0 ③ 0	300

Nos 1-3 counted while fresh, the rest much later so the sponge spots may have all faded.

M.E.L

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of Jun 29 to July 5 1947

Period set 27 Jun to 3 July — Type of shell Quinn's (600 per bu) factor

Sample No. 29 Stake No. 1 Size of sample counted 20 (12 Aug 47) shells inside only - factor 2

Oyster spat	None		No. per bu. ____ Av. size ____
Fouling organisms	Barnacles	0 1 0 0 0 0 0 0 0 0 (1) 1 0 0 0 0 0 0 0 0 0 (1)	= 2 — No. per bu. 120
	Serpulids	1 2 2 1 (6) 2 3 4 4 (13)	= 19 — No. per bu. 1440
	Bryozoa Membranipora	1 (1) 1 (1)	= 2 — 120
	Sponge spot	1 (1)	= 1 — 60

Several cemented sand grain tubes. I wonder if all the sponge spots have faded?

MER

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 29 Jun to 5 July, 1947

Period set 27 Jun to 3 Jul 47 — Type of shell Quinn's (600 per bu) — Factor 30

Sample No. 30 — Stake No. 2 — Size of sample counted 20 shells (inside only) — Factor 2

Oyster spat	No oyster spat		No. per bu. 0
			Av. size
Fouling organisms	Barnacles	0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 = 1	No. per bu. 60
	Bryozoa colonies Acant	1 = 1	60
	Serpulids	2 2 3 1 2 2 2 = 14	840

Remarks: No bryozoa seen on these shells - they are the cleanest shells I remember having seen all year.

Counted by J. D. Andrews — Date Mar 17, 1948

LZ

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground NANSEMOND RIDGE Week of JULY 6-12 1947

Period set 3 JULY to 11 July Type of shell Quinn's (600 per bu.) Factor 30

Sample No. 35 Stake No. 1 Size of sample counted 20 shells (INSIDE ONLY) factor 2

		Counts										Subtotal	Counts										Subtotal	Total	
Oyster spat	SIZE SPAT	275/																							No. per bu. 60
	NO SPAT	0	0	0	0	0	0	0	0	0	0	(0)	0,1												Av. size
	BRISTLY SPONGE	1	0	0	0	0	0	0	0	0	0	(1)													
Fouling organisms	Barnacles	2	5	3	11	7	1	3	7	5	1	(45)	4	5	20	6	4	1	2	1	0	21	(64)	= 109	No. per bu. 6,540
	Serpulids	19	9	5	14	12	14	19	4	19	3	(118)	15	13	29	23	14	12	39	9	2	7	(163)	= 281	No. per bu. 16,860
	SPONGE SPOTS		0	0	0	0	0	0	0	0	0	(0)									1		(1)	= 1	60
	BRYOZOA COLONIES	1	0	0	2	0	0	2	1	2	3	(11)	1 / Membranipora → 2	2	1	1	1	1	3 / 1		1 / 1	1 / 1	(8) (8)	= 27	1,620

Folliculina Moderate no of collapsed bluish bottle-shaped annelid tubes (annelid with two probosces like this  shell surface

The bryozoan colonies in the second group of shells were not merely encrusted but each had at least one alive animal

A number of mud + sand grain tubes (cemented type) on shells

10 extra shells in bag not counted

M.E.L.

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground *Nansemond Ridge* Week of *6-12 July* 194*7*

Period set *3 Jul to 11 Jul 47* Type of shell *Quinns (600 per bu)* Factor *30*

Sample No. *36* Stake No. *2* Size of sample counted *20* shells (inside only) Factor 2

Oyster spat

0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0

0, 0, 0, 0, 0, 0, 0, 0, 0, 0

No. per bu. *0*

Av. size

Fouling organisms

Organism	Counts (first shells)	Subtotal	Counts (remaining shells)	Subtotal	Total	No. per bu.
Barnacles	13, 1, 2, 2, 8, 1, 7	(34)	14, 1, 5, 12, 1, 0	(33)	= 67	4,020
Bryozoa colonies — Memb	1		1, 1		= 3	180
Bryozoa colonies — Acant	3, 1, 2		2, 1		= 9	540
Serpulids	16, 4, 2, 1, 12, 25, 15, 7, 2, 3	(87)	28, 21, 17, 22, 8, 2, 1, 2, 2	(108)	= 195	11,700
Yellow Sponge			1		= 1	60

Remarks:

Counted by *J. D. Andrews* Date *16 Mar 48*

LZ

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 13-19 July 1947

Period set 11 Jul to 18 Jul 47 Type of shell Quinnie (600 per bu) Factor 30

Sample No. 41 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2

Oyster spat

0,0,3,0,0,1,0,0,0,0 = 4
03,0,0,0,0,0,0,1,0 = 4
= 8

No. per bu. 480

Av. size

Fouling organisms

	1*	2	3	4	5	6	7*	8	9	10		11	12	13	14	15	16	17	18	19	20		Total	No. per bu.
Barnacles	11	5	4	5	6	1	3	1	10	2	(48)	7	7	1	0	3	6	4	2	3	2	(33)	= 81	4,860
Bryozoa colonies Memb.		3			2			1	5	1	(12)	1	1			4	5			1	1	(13)	= 25	1,500
Bryozoa colonies Acant.	2		2	1					1		(6)						2	1			2	(5)	= 11	660
Serpulids	1	11	6	2	4	3	5	1	2	3	(38)	6	4		1	5		1			1	(18)	= 56	3,360
Yellow sponge				1							(1)		1		1	1	1					(4)	= 5	

Remarks: * Folliculina

Counted by J. D. Andrews Date 12 Mar 48

L.J.

JAY DONALD ANDREWS _____

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of _____ 194___

Period set 11 Jul to 18 Jul 47 Type of shell Quinnis (600 per bu) Factor 30

Sample No. 42 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2

Oyster	1 0 0 1 1 1 0 0 0 0 (3) 1 0 0 0 0 0 0 0 0 0 (1) = 4	No. per bu. 240
spat		Av. size
Fouling organisms — Barnacles	27 1 6 11 8 4 8 1 26 14 (10) 0 0 4 2 13 2 1 2 4 0 (28)	No. per bu. =138 / 8280
Bryozoa colonies	1 1 2 0 1 1 2 4 0 (12) 1 1 0 2 1 1 2 7 2 0 (17)	=29 / 1740
Serpulids	9 1 0 2 (12) 1 1 1 0 0 1 1 3 30 (11)	23 / 1380

Remarks: Counted by E Trussell Date _____

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 20-26 July 1947

Period set 18 July - 25 July — Type of shell Quinnis (600 per bu) - factor 30

Sample No. 47 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	1,3,0,0,0,1,2,0,0,1 = 8 = 15 0,1,1,1,0,1,1,1,0,1 = 7		No. per bu. 900 Av. size
Fouling organisms	Barnacles	14 29 49 33 31 53 23 80 48 55 (415) 19 33 76 5 12 33 67 31 19 4 (299) = 714	No. per bu. 42840
	Membranipora	1 4 2 2 1 3 (13) 1 2 2 (5) = 18	1080
	Bryozoa Acanthodesia	1 1 1 2 1 1 (7) 1 1 (2) = 9	No. per bu. 540
	Serpulids	14 13 10 9 4 12 8 (70) 6 9 5 7 9 11 5 7 (59) = 129	7,740
	Bristly Sponge	4 1 1 (6) 1 1 1 1 (4) = 10	600
	Anomia	2 (3) = 3	180

Many sea spiders on these shells. A considerable no of filmy cases of Corophium + a few sand cases of an annelid

M.E.L

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground: Nansemond Ridge — Week of: 20 - 26 July 47 — 1947

Period set: 18 July to 25 July 47 — Type of shell: Quinn's (600 per bu) — Factor: 30

Sample No. 48 — Stake No. 2 — Size of sample counted: 20 shells (inside only) — Factor 2

	Counts	Total	No. per bu.
Oyster spat	0, 1, 0, 0, 1, 0, 0, 0, 1, 1, = 4; 0, 0, 0, 0, 0, 0, 2, 0, 1, 1 = 4; = 8	8	480
Av. size			
Barnacles	5, 28, 54, 56, 18, 30, 47, 32, 26, 2 (298); 40, 9, 31, 15, 8, 24, 15, 3, 17, 5 (167)	= 465	27,900
Bryozoa colonies	C, 1	= 7	420
Acant	1, 2, 1, 1, 2	= 7	420
Serpulids	6, 4, 7, 6, 3, 27, 10, 9, 4 (76); 8, 7, 18, 12, 14, 5, 7, 7, 6, 6 (90)	= 166	9,960
Yellow sponge	1, 1, 1, 2 (5); 1, 1, 2, 2 (6)	= 11	660
Crepidula	1	= 1	60

Remarks: All the spat were large (around 1 mm.) except one. No bryozoa seen.

Counted by: J. D. Andrews — Date: 17 Mar 48

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground: Nansemond Ridge — Week of: 27 Jul to 2 Aug. 1947

Period set: 25 July to 31 July 1947 — Type of shell: Quinns 600 per bu — Factor 30

Sample No. 53 — Stake No. 2 — Size of sample counted 20 shells (inside only) — Factor 2

		Counts	Total	
Oyster spat		2, 1, 0, 1, 1, 0, 0, 2, 5, 1 = 13 1, 0, 0, 1, 0, 4, 3, 0, 1, 3 = 13	= 26	No. per bu. 1,560
				Av. size
Fouling organisms	Barnacles	36, 24, 32, 36, 35, 27, 29, 18, 117, 36 (390) 13, 39, 3, 17, 4, 11, 48, 14, 11, 33 (192)	= 582	No. per bu. 34,920
	Bryozoa colonies Memb	1	= 1	60
	Bryozoa colonies Acant	1, 3, 1, 2	= 7	420
	Serpulids	1, 3, 2, 1, 1, 3, 27, 1, 4, 1	= 44	2,640
	Yellow sponge	2, 3, 4, 2, 1, 2, 2, 1, 1	= 18	1,080
			= 10	600

Remarks: Crepidula forn. 2, 1, 1, 1, 2, 2
Most of spat quite small

Counted by J. D. Andrews — Date 12 Mar 48

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge   Week of Jul 27 - Aug 2 1947

Period set 1000 Jul 25 to 0930 Jul 31   Type of shell Quinns (600 per shell) Factor 30

Sample No. 54 Stake No. 2 Size of sample counted 20 shells - inside only - factor 2

		No. per bu.
Oyster	0,2,0,2,0,4°,2,2,0,0 = 12 0,0,0,0,0,0,0,0,0,0 = 0 The shells in the top of the bag had spat but none were found in the bottom. predation? = 12	720
spat	550, 1175 | 1750, 375 | 975, 1325, 1100, 1050° | 475, 575 | 575, 550 |	Av. size

Jingle

Fouling organisms	1	2	3	4	5	6	7	8	9	10	(subtotal)	11	12	13	14	15	16	17	18	19	20	(subtotal)	Total	No. per bu.
Barnacles	2	201	36	13	23	63	1	3	2	5	(249)	4	10	39	10	2	14	4	5	5	26	(119)	= 468	28,080
Serpulid tubes	0	5	4	2	0	3	0	0			(14)		3	1					2	30	10	(46)	= 60	3,600
Bristly sponge		1	2		1					1	(5)	1	2					1	0		2	(6)	= 11	660
Bryozoa				3	0	1	2		1		(7)		1	1	1					2	2	(7)	= 14	840
Crepidula	0		1					2			(3)	1										(1)	= 4	240

Several Corophium with cases on shells. Some shells have sperm like objects rather abundantly. Shell 6 had over a dozen Corophium cases some with animals inside. Most of these cases turned up at the open end thus [sketch] Tubes were made of bits of sand + debris + well cemented together. Usually in colonies. A lot of Caprella around these tubes + on this shell.

4° means 4 spat of which one was drilled

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground *Nansemond Ridge* Week of *3-9 Aug 47* 194*7*

Period set *31 July to 8 Aug 1947* Type of shell *Quinn (600 per bu)* Factor *30*

Sample No. *59* Stake No. *2* Size of sample counted *20* shells (inside only) Factor 2

			No. per bu. / Av. size
Oyster spat	3, 4, 0, 1, 1, 0, 1, 4, 0, 2 = 16 2, 0, 2, 4, 2, 0, 0, 5, 1, 6, 3 = 25	= 41	No. per bu. 2,460 Av. size
Fouling organisms: Barnacles	39 90 115 8 9 5 18 10 7 17 (318) 9 7 33 10 15 26 71 6 21 23 (221)	= 539	No. per bu. 32,340
Bryozoa colonies, Memb.	1	= 1	60
Bryozoa colonies, Acant.	1 1 1 2 2 3	= 10	600
Serpulids	33 0 1 1 1 1 14	= 51	3,060
Yellow sponge	1 3 2 3 1 6 2 2 2 1 1 9 2 0	= 35	2,100

Remarks: *Both large and small spat.* Counted by *J. D. Andrews* Date *10 Mar 48*

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 3-9 Aug 194 7

Period set 31 July - 8 Aug 47 — Type of shell Quinni (600 per bu) — Factor 30

Sample No. 60 — Stake No. 2 — Size of sample counted 20 shells (inside only) — Factor 2

Oyster	1,0,0,1,3,0,0,2,0,0 = 7 1,1,1,0,0,1,1,4,0,0 = 9 = 16		No. per bu. 960
spat			Av. size
Fouling organisms	Barnacles	2 0 15 5 10 23 8 40 5 10 (118) 2 5 3 4 11 3 13 20 1 18 (86) = 198	No. per bu. 11,880
	Bryozoa Mem.	1 1 1 = 4	240
	colonies Acant	1 2 1 1 1 2 1 2 = 11	660
	Serpulids	1 3 7 1 1 1 = 14	840
	Yellow sponge	4 1 3 3 3 6 3 4 4 2 3 2 2 7 3 = 50	3,000
		= 6	360

Remarks: Crepidula fornicata 1 1 2 1 1 1 — Counted by J.D. Andrews — Date 11 Mar 48

More sponge, fewer barnacles and oyster spat than in sample 59 counted yesterday.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of Aug 10-16 1947

Period set 1500 Aug 8 to 0900 Aug 15 — Type of shell Quinnis (600 per bu) Factor 30

Sample No. 65 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat

28, 6, 4, 12, 13, 10, 7, 11, 6, 24 = 121

16, 9, 3, 17, 4, 19, 27, 3, 5, 10 = 113

= 234

No. per bu. 14,040

300, 1750, 2250, 500, 300, 375, 625, 500, 550, 475, 300, 275, 375, 250, 875, 550, 350, 475, 500, 400, 300, 625, 400, 350, 400, 525 | 325, 475 | 250, 300, 550, 1375, 575, 375 | 525, 1500, 250, 500, | 300, 625, 275, 275, 1225, 775, 475, 500, 2750, 625, 575, 450, | 300, 275, 475, 550, 600, 300, 425, 350, 500, 800, 950, 1050, 250, | 500, 1000, 275, 275, 625, 550, 400, 450, 475, 425, | 550, 325, 375, 400, 340, 450 550 | 375, 625, 425, 375, 250, 625, 275, 275, 850, 2875, 800 | 300, 500, 625, 375, 450, 1125, | 250, 475, 275, 275, 500, 400, 250, 650, 375, 600 400, 300, 300, 300, 1750, 375, 550, 1250, 675, 250, 425, 275, 275, 525, |

Av. size

Fouling organisms

Barnacles	38	2	3	10	31	5	5	5	5	(135) 31	4	6	4	17	14	21	11	0	5	10	(92)	= 227
Bryozoa Colonies Acanthodesia		1								①			1				1				②	= 7
Membranipora						2				②				1						1	②	
Bristly sponge					4					④	1				4					1	⑥	= 10
Serpulids						2		1		③							3			1	④	= 7
Crepidula	1	1			1	1	2			⑤	1										①	= 6

No. per bu.

Barnacles 13,620

Bryozoa 420

Bristly sponge 600

Serpulids 420

Crepidula 360

Shells 1420 — 875, 800, 500, 625, 475, 2500, 525, 375, 550, 875, 550, 325, 450, 500, 275, 400 | 375, 275, 750, 475, 375, 575, 400, 650, 325 | 500, 725, 750 | 250, 300, 375, 250, 275, 250, 425, 300, 450, 1250, 250, 650, 1275, 550, 2300, 250, 400 | 450, 275, 750, 575 | 750, 400, 325, 375, 1025, 500, 350, 575, 2050, 500, 375, 275, 475, 300, 450, 275, 325, 400, 300 | 475, 425, 250, 250, 550, 250, 500, 275, 300, 475, 450, 500, 400, 450, 550, 400, 625, 450, 300, 600, 550, 250, 275, 500, 450, 1750, 375 | 250, 250, 500 | 300, 625, 350, 325, 625 | 350, 250, 375, 475, 400, 375, 250, 375, 300, 325,

I can see no evidence of drill activity by the usual boring method on these week-old oysters. One drill was found in the shell bag - the first. Few mortalities among spat as apparent

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 10 - 16 Aug 194 7

Period set 8 Aug to 15 Aug 47 Type of shell Quinns 600 per bu. Factor 30

Sample No. 66 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2

Oyster	9,10,10,7,9,1,21,8,9,13 = 97 5,4,6,6,28,5,13,9,10, = 68 : 165		No. per bu. 9,900
spat			Av. size
		(116) (96)	
Fouling organisms	Barnacles	19 21 47 16 1 3 2 2 1 4 6 6 36 2 2 7 3 12 3 14 = 212	No. per bu. 12,720
	Bryozoa colonies Acant	1 1 = 2	120
	Serpulids	1 1 2 2 1 = 7	420
	Yellow sponge	1 2 1 1 2 2 = 9	540
	Crepidula	2 = 2	120

Remarks:

Counted by J. D. Andrews Date 12 Mar 48

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 17-23 Aug. 194 7

Period set 15 Aug to 22 Aug 47 Type of shell Quinn's (600 per bu) Factor 30

Sample No. 71 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2

Oyster spat	10, 16, 23, 5, 23, 5, 12, 13, 40, 7 = 154 5, 18, 7, 6, 15, 18, 14, 5, 12, 38 = 138 292 Scars 11	No. per bu. 17,520 Av. size
Fouling organisms	Barnacles: 21 | 9 | 349 | 0 | 39 | 110 | 11 | 105 | 29 | 4 (671) | 5 | 26 | 24 | 155 | 100 | 2 | 49 | 31 | 16 | 245 (653) = 1330	No. per bu. 79,800
	Bryozoa colonies Acant: 3 | 1 | 1 | 1 | 2 = 8	480
	Sorpulids: 1 = 1	60
	Yellow Sponge: 1 = 1	60
	Crepidula: 1 | 2 | 2 = 5	300

Remarks: Some extremely large spat and most spat seven days old.
Only one little spot of sponge seen. Very few Bryozoa.

Counted by J. D. Andrews Date 8 Mar 48

LJ

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 17-23 August 1947

Period set 15 Aug to 22 Aug. 47 — Type of shell Quinns (600 per bu) inside only

Sample No. 72 — Stake No. 2 — Size of sample counted 20 shells — 2 × 30 = 60 factor

Oyster spat	8 30 7 9 52 43 6 7 15 11 (188) 25 43 8 7 39 20 19 8 6 20 (198) = 386		No. per bu. 23,160
			Av. size
Fouling organisms	Barnacles	79 8 51 3 20 27 55 14 18 16 (427) 32 42 13 5 16 35 13 22 3 4 (185) = 612	No. per bu. 36,720
	ACANTHODESIA	1 1 1 2 1 (6) 0 1 1 (2) = 8	No. per bu. 480
	CREPIDULA	1 3 3	420

189/55/244/93/421

by E. Trussell – Jan 31/48

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 24-30 Aug 1947

Period set 22 Aug to 29 Aug Type of shell Quinns (600 per bu) - factor 30

Sample No. 77 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat		2, 0, 2, 7, 2, 2, 7, 7, 2, 2 = 33 8, 2, 3, 0, 4, 13, 1, 2, 3, 4 = 40 = 73 2500, 2450 | 2500, 2250 | 500, 1750, 1800, 800, 2250, 800, 550 | 2900, 950 | 2750, 3000, 2800, 3500, 600, 2000, 1050, 400, | 1950, 1775 | 3000 | 1875, 1250, 1200, 400 | 3000, 2500, 875, 550, 2500, 475, 875, 3000, 1250, 1900, 550, 625, 2500, | 3150, 3500, 2200	No. per bu. 4,380 Av. size
Fouling organisms	Barnacles	14 | 0 | 33 | 33 | 2 | 13 | 24 | 66 | 10 | 6 (201) 47 | 10 | 3 | 4 | 16 | 101 | 3 | 8 | 0 | 54 (246) = 447	No. per bu. 26,820
	Bryozoa Acanthodesia	1 1 1 1 (4) = 4	240
	Bryozoa Membranipora	1 1 (2) 1 1 1 (3) = 5	No. per bu. 300
	Serpulids	1 2 1 1 = 5	300
	Anomia	1 1 = 2	120
	Crepidula	1 1 = 2	120

Shells exceptionally muddy for Nansemond Ridge

Some extremely large spat in this sample. I believe this sample caught the tail end of a brood and perhaps the beginning of another judging from the size of the spat

Counted by JDA

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 24-30 Aug — 1947

Period set 22 Aug - 29 Aug. 47 — Type of shell Quinni (600 per bu) — Factor 30

Sample No. 78 — Stake No. 2 — Size of sample counted 20 shells (inside only) — Factor 2

Oyster	2,1,1,1,0,7,2,0,0,1 = 15 1,2,1,2,6,0,1,4,1,5 = 23 = 38		No. per bu. 2280
spat			Av. size
Fouling organisms	Barnacles *	0 0 9 5 14 1 52 2 8 0 (91) 0 0 1 13 0 21 1 1 2 1 (40) = 131	No. per bu. 7,860
	Bryozoa colonies Acant	1 1 = 2	120
	Serpulids	1 = 1	60

Remarks: large % of barnacles dead. — Counted by J.D. Andrews — Date 5 Mar 48

C. formidabile III

Very few barnacles were present except on a few outside shells.

Most of the spat in this sample were exceptionally large with a few very late set spat. This combined with the low number of spat makes me wonder what happened to this brood because fairly large counts were obtained the weeks before + after this one. Was it weather - heavy tides or what.. muddy shells?

PJ

JAY DONALD ANDREWS

9 Sept 1947 Checked by
E.F. Tressell JDA 9 Sept 47
(1st counts)

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 31 Aug - 6 Sept 1947

Period set 29 Aug - 4 Sept — Type of shell Quinnis (600 per bu) - factor 30

Sample No. 83 Stake No. 1 Size of sample counted 20 shells inside only - factor

Oyster spat	E.F.T	16 7 5 0 1 4 10 5 9 5 12 (3) 2 5 10 15 12 14 4 2 6 = ~~144~~	No. per bu. 13,140
	JDA	18 8 8 0 2 5 16 6 13 15 18 6 7 22 17 19 20 7 3 7 = 219	
		~~62~~ 91 ~~82~~ 128	Av. size
Fouling organisms	Barnacles	8 18 21 14 (36) 1 0 4 16 2 1 5 14 8 69 11 5 8 1 0 5 1 = ~~277~~ 315	No. per bu. 18,900
	Membranipora	2 0 0 0 10 0 0 1 ~~78~~ 112 203 ~~199~~ = 1	No. per bu. 60
	Acanthodesia	0 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 = ~~1~~ 3	180
	Anomia	1 1 1 1 = 4	240

egg case found

JAY DONALD ANDREWS

Counted 24 Sept 47 JDA

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 31 Aug - 6 Sept 1947

Period set 29 Aug - 4 Sept — Type of shell Quinn's (600 per bu) - factor 30

Sample No. 84 — Stake No. 2 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	7, 10, 3, 14, 9, 5, 11, 11, 3, 7 = 80 12, 11, 5, 7, 11, 5, 9, 37, 2, 7 = 106 = 186		No. per bu. 11,160 Av. size
Fouling organisms	Barnacles	2 4 20 26 11 9 5 19 11 60 (167) 8 30 0 28 40 1 7 19 0 14 (147) = 314	No. per bu. 18,840
			No. per bu.
	Membranipora	3 ③ 2 1 1 ④ = 7	420
	Bryozoa Acanthodesia	1 1 ② 1 2 2 ⑤ = 7	420
	Anomia	1 1 1 ③ 3 1 1 3 ⑧ = 11	660
	Crepidula	1	60

Nearly all the barnacles are small. Oyster larvae all size - mostly small, under 500μ

MEL

JAY DONALD ANDREWS

Counted 22 Sept 47 JDA

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 7-13 Sept. 1947

Period set 4 Sept. - 12 Sept. — Type of shell Quinnis (600 per bu) - factor 30

Sample No. 89 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	4, 6, 3, 5, 16, 4, 6, 17, 4, 16, = 81 3, 7, 8, 6, 3, 12, 3, 5, 8, 5 = 60 = 141		No. per bu. 8,460 Av. size
Fouling organisms	Barnacles	1 0 0 0 0 2 0 32 11 2 (42) 19 19 0 1 2 1 6 4 0 5 (57) = 105	No. per bu. 6,300
	Serpulids	1 (1) 1 (2) 4 (4) = 6	No. per bu. 360
	Membranipora	1 (1)	
	Acanthodesia	1 (1)	
	Anomia	1 1 (2)	
	Crepidula	1 (1)	

MEF

JAY DONALD ANDREWS

Counted 24 Sept 47 JDA

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 7-13 Sept 1947

Period set 4 Sept. — 12 Sept — Type of shell Quinns (600 per bu) - factor 30

Sample No. 90 — Stake No. 2 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	8,2,8,12,11,6,8,3,5,1 = 66 9,4,5,2,7,7,5,14,6,23 = 82		= 148	No. per bu. 8,880 Av. size
Fouling organisms	Barnacles	1 2 1 3 0 2 22 0 1 0 (32) 17 1 0 7 2 1 5 2 6 0 (41)	= 79	No. per bu. 4,380
	Serpulids	1 2 1 (4) 3 2 1 (6)	= 10	No. per bu. 600
	Bryozoa Acanthodesia	1 2 1 4 (8) 1 1 1 1 1 (5)	= 13	780
	Anomia	1 1 1 (3) 1 1 (2)	= 5	300
	Crepidula	1 (1)	= 1	

Most of the oyster spat are small - around 375-400 μ.

1 Anomia 3mm in size.

M.E.Z.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 14-20 Sept 1947

Period set 12 Sept to 19 Sept 1947 Type of shell Quinnis (600 per bu) Factor .30

Sample No. 95 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2

Oyster	3,4,5,3,5,0,2,4,3,4 = 33 4,1,7,10,11,3,4,5,2,4 = 51 = 84		No. per bu. 5040
spat			Av. size
Fouling organisms	Barnacles	2 4 3 2 0 0 1 4 78 14 (108) 0 1 3 1 4 2 97 14 0 0 (127) = 230	No. per bu. 13,800
	Bryozoa colonies (Acanthodesia)	1 1 = 2	120
	Serpulids	1 1 = 2	120
	Crepidula	1	
	Anomia	1	

Remarks: One shell of each series of 10 had a considerable No. of barnacles outside exposure?

Counted by J.D. Andrews Date 15 Apr 48

LJ.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Narrowmond Ridge — Week of 14-20 Sept 1947

Period set 12 Sept - 19 Sept. — Type of shell Quinni (600 per bu) factor 30

Sample No. 96 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	7,7,8,4,4,4,2,0,6,9 = 51 2,12,4,5,14,7,3,6,9,13 = 75 = 126 1100, 400, 375, 500, 1950, 975, 400, 375, 600, 925, 1375, 800, 525, 1425.	No. per bu. 7,560 Av. size
Fouling organisms — Barnacles	3 2 3 0 4 0 0 0 2 1 (15) 6 0 6 3 6 0 1 6 3 3 (34) = 49	No. per bu. 2940
Serpulids	2 1 (3) 2 1 1 (4) 7	No. per bu. 420
Bryozoa Acanthodesia	1 1 2 1* 1 2 (8) 1 2 1 11 (5) 13	780

Ancestrulae

These shells are remarkably clean of dirt & fouling organisms. No outside shells observed with any no of barnacles

M.E.L

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 21-27 Sept 1947

Period set 19 Sept to 27 Sept 47 Type of shell Quinn's (600 per bu) Factor 30

Sample No. 101 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2

Oyster	0,1,0,0,0,2,0,2,0,0 = 5 2,2,4,4,0,1,0,1,2,2 = 18	= 23	No. per bu. 1380
spat			Av. size
Fouling organisms	Barnacles	29 34 11 6 20 11 0 29 1 0 (207) 2 7 11 3 15 3 60 1 2 0 (104) = 311	No. per bu. 18,660
	Bryozoa colonies Acast	1 = 1	60
	Serpulids		

Remarks:

Counted by J.D Andrews Date 18 Mar 48

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of _____ 194__

Period set 19 Sept to 27 Sept 47 Type of shell Quinns (600 per bu.)

Sample No. 102 Stake No. 2 Size of sample counted 20 shells inside only - factor 60

Oyster spat	1 0 1 3 0 0 1 1 0 0 (0) 1 0 2 1 0 0 0 0 2 0 (6) = 13		No. per bu. 780
			Av. size
			=216
Fouling organisms	Barnacles	11 2 14 6 15 9 8 5 15 1 (86) 11 9 5 1/6 1 0 12 1/6 2 6 (130)	No. per bu. 12960
	CREPIDULA FORNICATA	/ (1) / (1) =2	No. per bu. 120

By. E. Prasolt

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 28 Sept to 4 Oct 1947

Period set 27 Sept to 2 Oct 47 — Type of shell Quinnis (600 per bu) — Factor 30

Sample No. 107 — Stake No. 2 — Size of sample counted 20 shells (inside only) — Factor 2

Oyster	0,0,0,0,1,0,0,0,1,0 = 2 0,0,0,0,1,0,0,0,0,1 = 2		No. per bu. 240
spat			Av. size
Fouling organisms	Barnacles	102 5 2 1 0 8 0 0 1 3 (132) 27 1 2 1 2 2 0 42 0 13 (90) = 217	No. per bu. 12,720
	Bryozoa colonies		
	Serpulids		

Remarks: All four spat very small - almost larval size.

Counted by J D Andrews — Date 22 Apr 48

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of _____ 194 7

Period set 27 Sept to 2 Oct 47 Type of shell _____ Factor 30

Sample No. 108 Stake No. _____ Size of sample counted 20 shells (inside only) Factor 2

Oyster spat	0,0,0,0,0,0,0,0,0,0 0,0,0,0,0,0,2,0,0,0 = 2		No. per bu. 120
			Av. size
Fouling organisms	Barnacles	0,0,0,0,7,0,0,1,0,0 (8) 0,0,2,1,13,9,0,14,0,5 (14) = 52	No. per bu. 3,120
	Bryozoa colonies		
	Serpulids		

Remarks:

Counted by J.D. Andrews Date 23 Apr 48

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 12-18 Oct 1947

Period set 2 Oct to 16 Oct — Type of shell Quinn (600 per bu) factor-30

Sample No. 113 — Stake No. 1 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	0,0,0,0,0,0,0,0,0,0 = 1 / 1,000,000,000,000		No. per bu. 60
			Av. size
		(2107) : 4294 (2189)	
Fouling organisms	Barnacles	314 383 447 274 107 165 131 54 207 25 146 145 286 202 645 144 272 138 142 67	No. per bu. 257,640
	Membranipora	0 1 10 9 2 2 4 9 7 0 (44) 8 3 2 0 5 1 1 0 2 7 (39) = 73	No. per bu. 4,380

Counted by JDA

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge — Week of 12-18 Oct 48 — 194

Period set 2 Oct to 16 Oct 48 — Type of shell Quinn's (600 per bu) — Factor 30

Sample No. 114 — Stake No. 2 — Size of sample counted 20 shells (inside only) — Factor 2

Oyster	0,0,0,1,1,0,0,0,0,0 = 2 0,0,0,0,0,0,0,0,0,1 = 1 = 3		No. per bu. 180
spat			Av. size
		(1011) (861)	(1872)
Fouling organisms	Barnacles	98 48 175 76 256 81 59 139 56 23 54 88 27 43 21 135 113 118 100 162	No. per bu. 112,320
	Bryozoa colonies (Membranipora)	1 3 2 (6) 8 0 = 14	840
	Serpulids	1 = 1	

Remarks: I don't understand why there are so many barnacles on this set of shells compared to the previous period.

Counted by J.D. Andrews — Date 26 Apr 48

JDA

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 19-25 Oct 1947

Period set 16 Oct to 24 Oct 47 Type of shell Quinns 600 per bu - factor 30

Sample No. 125 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	none → 0		No. per bu. 0
			Av. size
Fouling organisms	Barnacles	3 25 9 1 15 11 24 9 3 1 (101) 3 9 6 24 9 0 58 19 16 3 (147) = 248	No. per bu. 14,880
		→ 0	No. per bu. 0

REMARKS - I am omitting Spat & Bryozoan counts since none were observed.

E. Tressett Nov. 24, 1947

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 19-25 Oct 1947

Period set 16 Oct to 24 Oct. 47 Type of shell Quinn's 600 per bu - factor 30

Sample No. 126 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	NO SPAT		No. per bu. 0
			Av. size
Fouling organisms	Barnacles	5 1 2 1 0 0 3 3 11 0 (20) 1 0 3 0 4 1 1 0 1 0 (11) = 37	No. per bu. 2220
		→ 0 → 0	No. per bu. 0

By: E. Tressalt Nov. 24, 1947

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Nansemond Ridge Week of 2-8 Nov 1947

Period set 24 Oct to 6 Nov 47 Type of shell Quinns - 600 per bu - factor 30

Sample No. 131 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat		No SPAT	No. per bu. 0
			Av. size
Fouling organisms	Barnacles	0 5 2 9 3 9 0 7 10 3 3 (18) 0 0 3 3 0 2 4 2 6 0 5 (43) = 121	No. per bu. 7260
		0	No. per bu. 0

By E. Tresselt Nov. 19, 1947

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS E. F. Truesdell Nov 13, 1947

Oyster ground Nansemond Ridge — Week of — 194__

Period set 24 Oct to 6 Nov 47 — Type of shell Quinni (600 per bu) factor 30

Sample No. 132 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster	0 0 0 0 0 0 0 0 0 0 (0) 0 0 0 0 0 0 0 0 0 0		No. per bu. 0
spat			Av. size
Fouling organisms	Barnacles	1 1 4 27 5 4 2 1 0 1 (46) 5 6 0 3 0 0 7 2 2 0 (25) = 71	No. per bu. 4260
	Membranipora	0 0 0 0 0 0 0 0 0 0 (0) 0 0 0 0 0 0 0 0 0 0 (0)	No. per bu. 0

Found one Crepidula

Weekly Spatfall on Wreck Shoal, 1947
in
The James River Seed Area

Data on Setting of Oysters and Fouling Organisms
on
20 to 40 shellfaces in Shellbags

28 May to 8 November, 1947

Jay D. Andrews
VIMS

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal Week of 8-14 June 1947

Period set 1500 May 28 to 1600 Jun 10 Type of shell Quinni (600 per bu). Factor 30

Sample No. 7 Stake No. 1 Size of sample counted 20 shells Inside only – Factor of 2

Oyster spat	None		No. per bu.
			Av. size
Fouling organisms	Barnacles	0/42/0/25/2/2/22/3/6/0 (102) ‖ 1/2/1/0/0/2/6/1/20/2 (35) Av. 6.9 per shell = 137	No. per bu. 8,220
	Bryozoa colonies	7/ = 7	No. per bu. 420

JAY DONALD ANDREWS _____

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal Week of 8-14 June 1947

Period set 1500 May 28 to 1600 Jun 10 Type of shell Quinns (600 per bu). Factor 30

Sample No. 8 Stake No. 2 Size of sample counted 20 shells inside only – factor of 2

Oyster spat	None		No. per bu. _____ Av. size _____
Fouling organisms	Barnacles	0/1/8/2/16/0/91/2/1/3 (124) | 2/2/2/1/59/76/34/2/2/9 (189) Av. 15.6 = 313	No. per bu. 18,780
	Bryozoa Colonies	1/ = 1	No. per bu. 60

JAY DONALD ANDREWS _____

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal Week of June 15-21 1947

Period set 1600 Jun 10 - 1015 Jun 18 Type of shell Quinn's (600 per bu.) Factor 30

Sample No. 13 Stake No. 1 Size of sample counted 20 shells inside only - Factor of 2

Oyster spat	None		No. per bu. _____ Av. size _____
Fouling organisms	Barnacles	0/0/0/0/0/0/0/2/0/0 (2) 0/0/2/0/0/0/1/0/0/0 (3) = 5	No. per bu. 300
	Bryozoa (colonies)	1/ = 1	No. per bu. 60

More dirt seems to settle on the shells each week. It is held on by a considerable amount of sticky material - ? what it is.

MCL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of June 15-21 1947

Period set 1600 Jun 10 — 1230 Jun 18 — Type of shell Quinni's — Factor 30

Sample No. 14 — Stake No. 2 — Size of sample counted 20 shells inside only - Factor of 2

Oyster spat	None		No. per bu.
			Av. size
Fouling organisms	Barnacles	0/1/0/5*/0/0/1/0/1/0 (8) // 0/0/0/0/0/2/0/1/0/0 (3) = 11	No. per bu. 660
	Bryozoa	1/ = 1	No. per bu. 60

* outside shell facing out

JAY DONALD ANDREWS _____

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal . Week of 22-28 June 1947

Period set 1015 Jun 18 to 1530 June 25 Type of shell Quinn's (600 per bu). Factor 30

Sample No. 19 Stake No. 1 Size of sample counted 20 shells (inside only) Factor 2

Oyster spat	None		No. per bu. _____ Av. size _____
Fouling organisms	Barnacles	1/3/0/0/1/0/0/0/1/0 (6) ‖ 0/0/1/0/0/0/1/1/1/0 (4) = 10	No. per bu. 6000
	Bryozoa colonies	1	No. per bu.

M.E.L.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 22-28 Jun 1947

Period set 1230 Jun 18 to 1600 Jun 25 — Type of shell Quinns (600 per bu) Factor 30

Sample No. 20 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2.

Oyster spat	None		No. per bu.
			Av. size
Fouling organisms	Barnacles	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 = 0	No. per bu. 0
			No. per bu.

Most of shells are fairly clean of fine sediments & dirt films - some coarse material stuck to shells in spots. Not much evidence of heavy silting

WEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of Jun 29 - Jul 5 1947

Period set 1530 Jun 25 to Jul 1 (1040) — Type of shell Quinni (600 per bu.) Factor 30

Sample No. 25 Stake No. 1 Size of sample counted 20 shells (inside only) Factor 2

Oyster spat	None		No. per bu.
			Av. size
Fouling organisms	Barnacles	1/0/0/0/0/0/0/4/1/0/ ⑥ || 2/0/0/1/0/0/0/0/0/1/ ④ = 10	No. per bu. 600
			No. per bu.

Fish eggs on inside of shell //
quite a heavy coating of sticky dirt - bacteria or diatom layer on shells

1
MCL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of June 29 - July 5 1947

Period set 1600 Jun 25 to 1125 Jul 1 — Type of shell Quinn's (600 per bu.) Factor 30

Sample No. 26 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2

Oyster spat	None		No. per bu. ____ Av. size ____
Fouling organisms	Barnacles	1/0/1/0/0/0/0/0/0/0 ② 0/0/0/0/0/0/0/0/0/0 ⓪ = 2	No. per bu. 120
	Sponge spot	1/ = 1	No. per bu. 60

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal Week of July 1–9 1947

Period set 1 July to 9 July Type of shell Quinnis (600 per bu) Factor 30

Sample No. 31 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

			No. per bu.
Oyster spat	None		
			Av. size
Fouling organisms	Barnacles	15/1/2/0/13/3/1/1/3/3 (42) 79 (37) 1 9 3 2 2 1 6 2 9	No. per bu. 4740
	Bryozoa colonies	0/2/8/2/1/37/11/3/3/2 (69) 91 (22) 0 2 2 8 1 1 2 0 3 3	No. per bu. 5460

Serpulid-like sand tubes ||

Folliculina ? 0 Many bluish bottle shaped or flask shaped structures inside a most transparent bag - size of Membranipora individuals but only 1 unit in every case (Colony)

MANY Fish eggs or few Shells

M.E.L.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 6-12 Jul 1947

Period set 1125 Jul 1 - 1030 Jul 9 — Type of shell Quinns (600 per bu) Factor 30

Sample No. 32 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	None			No. per bu. / Av. size
Fouling organisms	Barnacles	0/3/5/1/1/0/0/0/2/1 (13)	4/0/5/0/0/1/7/1/0/1 (19) Av. 1.6 per shell — 32	No. per bu. 1,920
	Bryozoa colonies	/15*/0/3/3/1/2/4/1/9 (38)	0/1/12/3/1/11/2/4/1/1 (36) Av. 3.7 per shell — 74	No. per bu. 4,440

* mostly single animals

Sand tube like serpulids // //

JAY DONALD ANDREWS

E. F. Tressler
Sept. 18, 1947

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 13-19 July 1947

Period set 9 July - 16 July — Type of shell Quinns (600 per bu) factor - 30

Sample No. 37 — Stake No. 1 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	1 0 3 1 2 0 3 1 3 3 (17) 0 3 3 0 4 4 1 1 5 7 (28) = 45		No. per bu. 2,700
			Av. size
		= 99	
Fouling organisms	Barnacles	3 11 7 4 4 3 7 4 3 6 (52) 9 1 3 8 4 3 1 4 2 12 (47)	No. per bu. 5,940
	Membranipora	9 4 0 7 5 9 19 5 8 4 (70) 15 5 12 0 4 0 14 40 26 11 (127) = 197	No. per bu. 11,820

Note: - Membranipora very abundant - ancestrula not counted
- Spat were small and scarce

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS   Counted by J. D. Andrews

Oyster ground WRECK SHOALS   Week of July 13-19 1947

Period set 9 July to 16 July   Type of shell Quinni (600 per bu) factor 30

Sample No. 38   Stake No. 2   Size of sample counted 20 shells inside only - factor 2

Oyster	II - III - I - IIII - IIII - I - I - II - 2, 0, 0 = 21 0, 0, 0, 2, 3, 3, 1, 2, 1, 1 = 13 = 34	No. per bu. 2,040
size of spat in spat microns	300, 275 / 500, 675, 700 / 275 / 275, 525, 425, 275, 275 / 825, 475, 925, 550, 425 / 525 / 525, 250 / 275, 250 / 650, 250 / 275, 450, 1100 / 425, 275, 650 / 375 / 500 350, / 325 / 300	Av. size
Fouling organisms — Barnacles	11, 7, 12, 9, 8, 3, 10, 3, 1, 6 (70) = 158 6, 8, 4, 9, 4, 8, 4, 37, 2, 6 (88)	No. per bu. 9,480
Bryozoa colonies	15, 6, 25, 11, 5, 4, 26, 11, 11, 35 (9*) (149) = 300 Membranipora (5*) 23, 7, (1*) 15, (2*) 13, (4*) 27, (5*) 32, (1*) 2, (1*) 7, (2*) 9, (4*) 16 (28) (151)	No. per bu. 18,000

* Ancestrula only

10-20 inclusive counted 12 Aug 47

Quite a not of blind bottle shaped annelid tubes. (Folliculina)

M.E.L.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 20-26 July 1947

Period set 1330 Jul 16 to 1200 Jul 23 — Type of shell Quinns (600 per bu) Factor 30

Sample No. 43 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	0, 3, 0, 0, 0, 2, 3, 3, 00 = 11 0, 0, 1, 0, 0, 0, 2, 2, 1, 1 = 7 = 18 375, 250, 550 | 250, 375 | 1050, 375, 375 | 300, 250, 350, | 300 | 875, 275 | 300, 250 | 300 | 275		No. per bu. 1,080 Av. size
Fouling organisms	Barnacles	4/11/1/6/6/5/6/3/11/4 (57) 2/7/2/2/5/10/5/4/5/14 (56) = 113	No. per bu. 6,780
	Bryozoan Colonies	1/1/ (2) = 2	No. per bu. 120

M.S.L.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 20-26 July 1947

Period set 1330 Jul 16 to 1200 Jul 23 — Type of shell Quinni (600 per bu) Factor 30

Sample No. 44 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	3,1,0,1,1,0,2,0,2,2 = 12 0,2,1,4,0,4,1,4,0,2 = 18 = 30				No. per bu. 1,800
	250,250,325 | 375 | 425 | 550 | 875,250 | 350,375 | 375,525				Av. size
	400,250 | 400 | 550,450,350,275 | 250,250,275,325 | 875 | 1050,275,925,325 | 275,450				
Fouling organisms	Barnacles	1|7|7|7|12|2|9|1|14|8 (68)	35|66|36|20|14|8|18|7|4|26 (234)	= 302	No. per bu. 18,120
	Bryozoa colonies	7*|0|0|6|0|1|10|0|10|16 (50)	0| |1|9|8|2|6|0|16|2 (36)	86	No. per bu. 5,160

*6 were lone mother animals

Most of barnacles large having set early in week

There seems to be a smaller set this week than last - particularly of larger spat.

Most Bryozoa colonies consist only of mother animal. Noticeably reduced from last week - at least colonies are.

Many of the oyster spat showed no new growth but were apparently only cemented to shell. Rather than believe I picked up the bag just after a swarm of larvae decided to strike, I would suggest a high mortality among these spat under 300μ - in other words a failure to succeed in striking

MEF

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E.F. Tressler
Sept. 13, 1947

Oyster ground Wreck Shoal — Week of 27 July - 2 Aug 1947

Period set 23 July - 30 July — Type of shell Quinns (600 per bu) factor 30

Sample No. 49 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	5 5 6 3 11 5 6 3 10 4 (58) 4 16 3 9 3 4 13 6 2 3 (63) = (121)		No. per bu. 7260
			Av. size
		= 1717	
Fouling organisms	Barnacles	31 97 431 30 308 56 20 42 74 44 (1133) 19 11 30 121 15 6 89 83 19 181 (584)	No. per bu. 103,020
	Membranipora Bryozoa	7 0 0 1 3 0 0 5 0 6 (16) 7 2 (9) + (25)	No. per bu. 1500
	Serpulids note*	14 17 0 0 (31) 28 0 0 0 = (59) (28)	3540

*I am quite sure the serpulids were on old shells previously exposed at a higher salinity

M S L

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground: Wreck Shoal Week of: 27 July - 2 Aug. 1947

Period set: 23 July - 30 July Type of shell: Quinni (600 per bu) Factor

Sample No. 50 Stake No. 2 Size of sample counted: 20 shells inside only - factor 2

Oyster spat		6, 5, 16, 3, 3, 0, 2, 2, 3, 2 = 42 2, 4, 6, 6, 5, 1, 4, 3, 2, 3 = 36 = 78	No. per bu. 4,680
		950, 475, 325, 475, 425, 400 | 525, 500, 875, 325, 1550 | 425, 525, 700, 450, 700, 625, 750, 1000, 1550, 500, 550, 800, 750, 825, 1050, 450 | 1125, 875, 375 | 750, 325, 250 | 275, 1050 | 550, 475 | 250, 425, 400 | 1125, 375 | See below	Av. size
Fouling organisms	Barnacles	114 | 180 | 166 | 97 | 156 | 96 | 180 | 53 | 158 | 126 (1326) | 92 | 82 | 72 | 212 | 127 | 126 | 166 | 103 | 38 | 120 (1138) = 2464	No. per bu. 147,840
	Bryozoa colonies	2 | 2 Circular | 1 | 1 | 15 | | | 6 | 5 | 3 (5) (0) (30) | 3 | 2 | 1 | | 1 | 2 | 1* | 6 (2*) | 2 (1*) (18) Membranipora = 48	No. per bu. 2880

4-10 done 11 Aug
11-20 — 13 Aug

* Ancestrula only

Size of Spat (No. 10-20) 625, 625 \| 1125, 450, 1550, 450 \| 475, 375, 375, 400, 625, 600 \| 575, 250, 375, 625, 250, 275 \| 300, 300, 275, 250, 375 \| 375 \| 500, 550, 250, 475 \| 275, 250, 375 \| 525, 625 \| 300, 350, 250 \|

Barnacles of all sizes.

M.E.L.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of Aug 3-9 1947

Period set 1100 Jul 30 to Aug 6 — Type of shell Quinnis (600 per bu.) Factor 30

Sample No. 55 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	5,10,4,14,4,3,2,7,5,2 = 56 = 126 (704) second 6,10,20,8,3,3,2,7,10,1 = 70 1000,1750,1125,800,425,475,925,875, | 1000,775,1250, | 375,1375,1050, | 650,425 | 875,600,650,375,350,500,875 | 1000,550,1000, 700,675,600,1125,950,925,650 No 10 = 875 250,450,350,1525,1250, | 625,1375,500,1150,1000,1025,1050,950,975,750 | 1050,975,825,1125 | 1150,750,475,250,250,1025,1250,950,900,1125,1000,925,475,1100 | 725,700,800,825 | 1025,1525,800 | 375,375 | 825,1000,500,675,350,1125,550 | 375,350,1000,1000,625 | 625,2000 | 1250,575,425,750,325,850 | 525,500,250,450,550 1025,1250,1275,900,375 | 1000,1250,1000,750,1050,650,1250,600,1000,975,675,450,1000,875,625,500,750,800,250,675	No. per bu. 7,560 Av. size
Fouling organisms — Barnacles	2 79 6 4 44 70 17 84 9 (14) 319 — 304 2 59 24 14 10 39 22 17 (10) 501 = 830	No. per bu. 49,800
Bryozoa colonies Membranipora	1* 0 2 1 2 1 (1) (6) — 1 2 1 (0) (4) = 1 = 10	No. per bu. 60 600
Angmia Crepidula	1 0 0 (1) — 2 1 1 2 (6) = 7	420

* circular colonies

Most of the barnacles are very large this week and must have set early. A small percentage of small dead barnacles are present suggesting mortalities rather than a late-in-the-week set. The oyster spat are also large on the average.

2 had not expected the Crepidula at Wreck Shoal

☐ around Crepidula

MEF

JAY DONALD ANDREWS

E. F. Tressalt
Sept. 16, 1947

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal
Week of 3-9 August 1947
Period set 30 July - 6 Aug
Type of shell Quinns (600 per bu) factor 30
Sample No. 56 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

		Counts	
Oyster spat		7 | 15 | 3 | 7 | 4 | 5 | 15 | 8 | 5 | 2 (71) 9 | 9 | 11 | 2 | 13 | 13 | 17 | 7 | 19 | 4 (104) =175	No. per bu. 10,500
		=587 (263)	Av. size
Fouling organisms	Barnacles	48 | 7 | 0 | 29 | 7 | 19 | 168 | 2 | 38 | 6 (324) 12 | 0 | 12 | 9 | 19 | 19 | 105 | 31 | 38 | 18	No. per bu. 35,220
	Bryozoa*: Membranipora	4 | 3 | 1 | 12 | 0 | 2 | 0 | 1 | 20 | 9 (52) 0 | 3 | 1 | 1 | 0 | 19 | 0 | 1 | 2 | 2 (29) =81	No. per bu. 4,860
	Jingles 0		
	Polychaeta		

Note: - found app. ½ doz. small oyster drills (no! JDA); some attached to spat; no drill holes observed on spat
- shells in this basket were old; some had old tube worms; disgarded these shells
- Polychaeta (class) with sand grain tube observed.
* ancestrula not counted

M.E.L.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 10-16 August 1947

Period set 6 Aug - 14 Aug — Type of shell Quinnie (600 per bu) factor 30

Sample No. 61 — Stake No. 1 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	13, 17, 13, 13, 10, 13, 14, 29, 17, 15 = 154 14, 13, 11, 5, 10, 10, 8, 8, 31, 14 = 124 = 278 1750, 425, 1500, 1225, 675, 550, 400, 450, 750, 350, 300, 550, 500,	No. per bu. 16,680 Av. size
Fouling organisms	Barnacles: 20 23 43 4 5 2 5 88 93 12 (295) 2 12 14 3 14 11 19 8 11 72 (166) 461	No. per bu. 27,660
	Membranipora Bryozoa: 1 1 1 1 17* 13 1 (35) 3 2 2 5 2 1 (15) 50	No. per bu. 3,000

* 6 ancestrula in addition

Outside of shell 13 = 8 spat

Most of the barnacles had just set.

Counted 8 Sep 47

13.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E. F. Treselt
Sept. 19, 1947

Oyster ground Wreck Shoal — Week of 10-16 Aug 1947

Period set 6 Aug 47 - 14 Aug 47 — Type of shell Quinni (600 per bu) factor 30

Sample No. 62 — Stake No. 2 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	11 12 14 6 8 31 9 16 25 12 (144) 3 11 18 21 11 12 19 7 40 5 (147) =291		No. per bu. 17,460
			Av. size 2
Fouling organisms	Barnacles	13 49 27 8 6 40 26 5 27 11 (212) 1 28 16 25 5 5 25 5 11 5 (126) =338	No. per bu. 20,280
	Bryozoa Colonies* Membranipora	4 16 19 26 4 9 17 2 6 10 (113) 0 4 4 4 21 2 0 17 2 11 (65) 178	No. per bu. 10,680

* ancestrula not counted

These were not drills! EFT

Note: - Counted 9 drills on shells; some on spat, all near spat; no drill holes observed.
- Spat varied in size

EFT.

MEL

JAY DONALD ANDREWS

E. Truselt
Sept. 10, 1947

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 17-23 Aug 1947

Period set 14 Aug - 21 Aug — Type of shell Quinnis (600 per bu) - Factor 3.0

Sample No. 67 — Stake No. 1 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	40 90 19 5 20 10 20 23 22 12 (261) 9 22 12 11 45 23 17 109 14 44 (306) = 567			No. per bu. 34,020
				Av. size
Fouling organisms	Barnacles	273 76 100 3 103 107 66 48 57 58 (891) 81 116 16 62 38 57 122 45 16 45 (598) =1489		No. per bu. 89,340
	BRYOZOA Membranipora	1 0 1 13 0 0 0 0 0 0 (13) 0 0 1 0 0 = 17 (2)		No. per bu. 1,020

M.E.L.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 17-23 Aug 1947

Period set 14 Aug. to 21 Aug — Type of shell Quinni (600 per bu) factor .30

Sample No. 68 — Stake No. 1 — Size of sample counted 20 shells

Oyster spat	50,31,41,17,11,22,28,21,30,12 = 263 48,79,17,21,14,17,44,14,10,39 = 303 : 566		No. per bu. 33,960
	1050, 1125, 1150, 800, 375, 950, 350, 1450, 1100, 850, 975, 1425, 700, 725, 1375, 1375, 1750, 800, 1800, 1500, 1175, 1875, 1525, 1150, 850, 1750, 275, 550, 1125, 700, 975, 1825, 400, 725, 1625, 1800, 300, 625, 275, 1250, 975, 1550, 1750, 300, 975, 1500, 1775, 1500, 550, 1475		Av. size
Fouling organisms	Barnacles	153 20 84 0 14 0 185 53 52 2 (563) 1 88 3 17 26 10 34 17 2 18 (216) = 779	No. per bu. 46,740
	Membranipora / Bryozoa / Acanthodesia	2 1 2 1 (6) 2 4 5 (11) = 17	No. per bu. 1020 (420)

Membranipora colonies only 2 or 3 zoecia

Although some spat are usually found along with a heavy set of barnacles on a shell, this week whole sections of shells + some entire shells have many spat with no barnacles at all. Angle of exposure involved.

MEZ

JAY DONALD ANDREWS

E.F. Tressler
Sept. 22, 1947

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 17-23 Aug 1947

Period set 14 Aug to 21 Aug — Type of shell Quinni (600 per bu) - factor 30

Sample No. 68 — Stake No. 2 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	16 35 23 138 8 9 10 13 28 (163) 3 14 13 43 26 84 34 13 14 24 (268) = 431		No. per bu. 25,860
			Av. size
Fouling organisms	Barnacles	3 2 16 20 4 7 15 21 0 0 (88) 6 3 0 59 4 81 12 3 7 8 (185) = 271	No. per bu. 16,260
	Membranipora	1 0 4 1 6 3 2 0 0 1 (12) 0 0 0 0 0 0 3 0 0 0 (3) = 15	No. per bu. 900

Note:- a few drills(?) found on or near spat; no drill holes
- good percentage of spat were large & well developed

M & P

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 24-30 Aug 1947

Period set 21 Aug – 28 Aug 47 — Type of shell Quinnis (600 per bu) - factor 30

Sample No. 73 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	23, 29, 88, 30, 40, 22, 18, 17, 10, 25 = 302 23, 19, 32, 20, 51, 38, 28, 14, 76, 20 = 322 = 624	No. per bu. 37,440
	325, 950, 1375, 1050, 675, 1025, 1100, 1000, 875, 1250, 375, 950, 925, 1075, 1250, 1225, 625, 250, 750, 625, 400, 1200, 1125 / 1500, 1625, 1675, 2700, 1700, 875, 1375, 1625, 500, 1450, 625, 800, 600, 1275, 1000, 1600, 875, 1500, 750, 950, 700, 300, 1000, 1050, 1000, 1350, 1500, 1000	Av. size
Fouling organisms	Barnacles 29 51 61 67 12 26 74 79 2 211 (612) 13 73 16 11 26 15 33 8 13 3 (211) = 823	No. per bu. 49,380
	Jingle 1	No. per bu.
	Membranipora 1 = 1	60

Many barnacles caught in metamorphosis - half way out of the Cypris case

MEZ

E.F. Tresselt

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS Sept. 20, 1947

Oyster ground Wreck Shoal Week of 24-30 Aug. 1947

Period set 21 Aug to 28 Aug. Type of shell Quinnie (600 per bu) factor 30

Sample No. 74 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	33	33	18	38	36	22	12	42	7	63	(304)	25	48	23	13	4	57	77	31	21	26	(325)	= 629	No. per bu. 37,740
																								Av. size
Fouling organisms: Barnacles	150	46	0	93	20	35	1	9	0	22	(376)	1	6	1	4	1	32	85	6	0	1	(137)	= 513	No. per bu. 30,780
Acanthodesia				1																				
Membranipora	0	4	0	2	1	3	0	25	0	0	(35)	0	4	1	0	0	4	17	1	0	2	(29)	= 64	No. per bu. 3,840
Jingle Shells	1		0								(1)													

Note: - spat tended to be well developed; majority large but some had just struck.
- Membranipora scattered; heavy on some shells
- Spat very abundant on most shells.

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 31 Aug - 6 Sept 1947

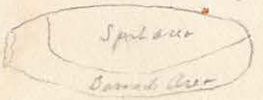
Period set 28 Aug - 3 Sept — Type of shell Quinni (600 per bu) - factor

Sample No. 79 Stake No. 1 Size of sample counted 20 shells inside only

Oyster spat	40,35,48,36,61,88,40,15,23,19, = 405 38,19,10,61,72,25,36,17,33,32 = 343	= 748	No. per bu. 44,880 Av. size
Fouling organisms — Barnacles	54 | 125 | 12 | 78 | 20 | 29 | 96 | 21 | 1 | 15 | (451) | 74 | 9 | 1 | 87 | 14 | 9 | 48 | 50 | 4 | 14 | (310)	= 761	No. per bu. 45,660
Anomia	1? (1) 1 1 (2)	= 3	No. per bu. 180
Membranipora	2	= 2	120

No evidence of Bryozoa colonies. Many shells have a rather heavy coat of tightly stuck dirt. Most of oyster spat are small - around 500m order. It is again striking that where barnacles are set thickest there are few spat + vice versa. (See shell 7 particularly) A comparison of whole shells does not begin to show the story. I drew a line on this shell separating what I call barnacle area from spat area + counted the no of each in both areas.

	Barnacle	Spat
Barnacle Area	85	4
Spat Area	11	36



JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E. F. Tressler
Sept. 15, 1947

Oyster ground Wreck Shoal — Week of 31 Aug - 6 Sept 1947

Period set 28 Aug - 3 Sept — Type of shell Quinni (600 per bu) factor 30

Sample No. 80 Stake No. 2 Size of sample counted 20 shells inside only. factor 2

Oyster spat	49 23 21 21 8 13 44 54 24 17 (274) 22 20 11 21 28 25 10 10 18 22 (187) = 461		No. per bu. 27,660
			Av. size
Fouling organisms	Barnacles	10 38 5 0 22 3 7 80 10 40 (215) 9 3 34 4 3 21 0 13 89 13 (189) = 404	No. per bu. 24,240
	Bryozoa Membranipora	0 2 0 0 0 1 0 0 1 0 (4) 0 0 0 0 0 0 3 0 0 1 (4) = 8	No. per bu. 480
	Jingle Shells	(1)	

NOTE:
- disgarded shells with excessive no. of barnacles
- spat ran small
- note colonial hydrazoa on shells 5, 13, and filamentous algae on shells 5, 1, 2, 13

MEF

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 7-13 Sept 1947

Period set 3 Sept to 11 Sept 47 — Type of shell Burnis 600 per bu. factor 30

Sample No. 85 — Stake No. 1 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	5 22 17 10 22 6 8 12 15 15 (132) 15 55 27 10 14 9 10 3 14 31 (188) = 320		No. per bu. 19,200
			Av. size
Fouling organisms	Barnacles	0 20 11 5 11 11 3 0 2 4 (67) 19 16 3 0 0 0 0 0 2 5 (35) = 102	No. per bu. 6120
	Membranipora	0 0 2 0 29 6 2 0 1 1 (41) 0 0 6 0 0 1 0 0 0 5 (6) = 47	No. per bu. 2820

COUNTED BY: E. Trasselt

JAY DONALD ANDREWS

Counted by Tressell + Andrews
11 Sept. 47

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 7-13 Sept 1947

Period set 3-11 Sept. — Type of shell Quinnis (400 per bu) - factor 30

Sample No. 86 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	45, 24, 24, 49, 31, 16, 17, 18, 40, 52 | 24 | 24, 33, 13, 27, 15, 19, 29, 39 — 316 — 239	= 555	No. per bu. 33,300
	Mostly small spat around 500 μ		Av. size
Fouling organisms: Barnacles	2, 30, 7, 4, 11, 19, 3, 26, 7, 9 (118) | 1, 4, 10, 8, 1, 6, 4, 2, 7, 22 (65)	= 183	No. per bu. 10,980
Membranipora Bryozoa	1, 15, 0, 0, 1, 0, 2, 1, 0 (20) | 0, 0, 1, 0, 17, 3, 2, 2 (27)	= 47	No. per bu. 2820

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal Week of 14-20 Sept 1947

Period set 11 Sept to 18 Sept Type of shell Quinn's (600 per bu) - factor 30

Sample No. 91 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	9, 14, 11, 16, 8, 24, 16, 4, 13, 10 = 125 8, 31, 19, 13, 11, 9, 14, 6, 13, 2 = 126 = 251	No. per bu. 15,060 Av. size
Fouling organisms	Barnacles: 43 38 5 80 39 2 9 8 15 12 (251) 23 22 76 28 3 8 2 26 19 (207) = 458	No. per bu. 27,480
	Membranipora Bryozoan Colonies: 2 2 1 3 1 (9) 1 11 1 (13) = 22	No. per bu. 1,320

The shells this week are strikingly clear. Scarcely a one has any coat of slime or dirt. Can this be the time of year when scouring occurs or is it due to this recent spell of heavy winds & abnormal tides? Most of the shells appear cleaner than when put down.

Nearly all of these spat are small, mostly under 500 μ. This is surprising considering the drops from last week. I would have expected a few old large spat set early in the week, representing the tail end of the big brood. These are the beginning of a new brood with a lapse of 4 or 5 days since the last brood passed.

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E. F. Tressel
Sept 23, 1947

Oyster ground Wreck Shoal — Week of 14-20 Sept 1947

Period set 11 Sept to 18 Sept — Type of shell Quinni (600 per bu) factor 30

Sample No. 92 — Stake No. 2 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	4 7 8 11 10 2 3 4 2 5 (56) 6 5 3 7 3 4 7 6 4 8 (53) = 109		No. per bu. 6540
			Av. size
Fouling organisms	Barnacles	12 24 8 15 1 6 0 1 0 0 (67) 13 6 0 5 5 0 3 3 22 9 (66) = 133	No. per bu. 7,980
	Membranipora	2 0 0 0 0 0 1 19 0 0 (21) 1 0 0 0 1 0 0 0 2 4 (8) = ~~29~~ 30	No. per bu. 1,800

Note: - 3 drills (?) observed on spat. (not)
- a few sand tubes observed,
- Spat few; size varied -

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 21-27 Sept 1947

Period set 18 Sept - 26 Sept — Type of shell Quinns (600 per bu) - factor 30

Sample No. 97 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	6,6,10,2,6,7,12,7,5,7 = 68 7,1,9,3,4,8,4,3,1,7 = 47	= 115	No. per bu. 6,900 Av. size
Fouling organisms	Barnacles	33 9 36 15 47 169 2 49 24 101 (425) 39 11 196 59 42 7 19 22 0 31 (426) = 911	No. per bu. 54,660
	Membranipora Bryozoa	5 1 (6) 1 2 (3) = 9	No. per bu. 540
	Mussel	1 1 (2) = 2	120

Most of shells extraordinarily clean - some scrupulously scoured - no slime layer or dirt
Most of barnacles small many without hard shell yet
Most oysters under 400μ
I can find no mussels on the back of these shells; if the hooked mussel spawns as early here as the edible mussel does in Milford Bay, late August plantings would avoid them for a full year

MEL

JAY DONALD ANDREWS

RECORD OF SET OF OSTREA AND ANOMIA ON SHELLS IN WIRE BAGS
(Size in mm.)

Oyster ground Wreck Shoal Period set 18 Sept to 26 Sept 47 Sample No. 98 Stake No. 2

Type of shell Quinn's (600 per bu) Size of sample counted 20 shells (inside only) Factor 60

Oyster spat	Live	1 1 1 5 5 4 2 11 5 1 (36) 1 2 3 2 1 2 2 3 1 2 (19) = 55	No. per bu. 3300	
	Dead — Boxes — Drilled			
	Dead — Boxes — Others			
	Dead — Scars			
Anomia	BARNACLES	0 3 1 0 82 1 2 17 0 1 (107) 0 29 1 5 9 1 0 5 0 2 (52) = 159	No bu. 9540	

Counted by E. Trussell Date Dec 29 '47

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E. F. Tressler
Oct. 6, 1947

Oyster ground Wreck Shoal — Week of 28 Sept - 4 Oct 1947

Period set 26 Sept to 2 Oct — Type of shell Quinn (600 per bu) - factor 30

Sample No. 103 — Stake No. 1 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	1 1 2 2 6 0 1 0 3 0 (16) 2 1 1 2 3 2 2 3 1 3 (20) = 36		No. per bu. 2160
			Av. size
Fouling organisms	Barnacles	1 4 0 1 1 0 1 0 0 0 (18) 1 3 0 0 0 2 2 1 0 1 2 (30) = 48	No. per bu. 2880
	BRYOZOA	(0) (0) = 0	No. per bu.

MEZ

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 30 Sept to 4 Oct 1947

Period set 26 Sept to 2 Oct — Type of shell Quinns (600 per bu) — Factor 20

Sample No. 104 — Stake No. 2 — Size of sample counted 30 shells (inside only) — Factor 2

Oyster	1, 3, 13, 7, 1, 2, 1, 4, 2, 0 = 34 2, 6, 2, 3, 2, 1, 0, 0, 0, 1 = 17		No. per bu. 2440
spat	2, 0, 1, 1, 0, 0, 1, 2, 3, 0 = 10 61		Av. size
Fouling organisms	Barnacles	22 6 4 81 8 1 30 2 11 29 (194) 13 10 2 3 6 10 1 15 14 5 (79) = 396	No. per bu. 15,840
	Bryozoa colonies Memb	0	
	Bryozoa colonies Acant	0	
	Serpulids		
	Barnacles	(123) 5 9 54 4 22 3 1 17 6 2	

Remarks: Most of barnacles quite late in the week set. Very little Lint. No Bryozoa observed.

Counted by J. D. Andrews — Date 3 Mar 48

L.Z.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 5-11 Oct 1947

Period set 2 Oct to 9 Oct. — Type of shell Quinni (600 per bu) factor 30

Sample No. 109 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	0,1,0,0,0,0,0,0,0,0 = 1 0,0,0,0,0,0,0,0,0,1 = 1 = 2	No. per bu. 120 Av. size
Fouling organisms — Barnacles	10 1 6 2 27 0 6 19 1 0 (72) 7 2 1 4 0 0 28 4 8 1 (55) = 127	No. per bu. 7620
		No. per bu.

MCL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E. Truslt, Nov. 5, 1947

Oyster ground Wreck Shoal — Week of 5-11 Oct 1947

Period set 2 Oct to 9 Oct — Type of shell Quinni (600 per bu) Factor 30

Sample No. 110 — Stake No. 2 — Size of sample counted 20 shells *inside only - factor 2*

Oyster spat	0 0 0 0 17 0 0 0 0 0 17 0 0 0 0 10 0 0 0 0 0 (10) *These two shells should have been discarded. Previous exposure!*		No. per bu. 0
			Av. size
Fouling organisms — Barnacles	2 1 3 2 14 4 9 4 6 3 (48) 6 0 3 0 3 0 3 2 9 0 (26) = 74		No. per bu. 4440
Fouling organisms — MEMBRANIPORA	0 0 0 0 0 0 0 0 0 0 6 (1) 0 0 0 0 0 0 0 0 0 0 0 (0) = 0		No. per bu. 0
Fouling organisms			

Note: -Barnacles were small.

-I do not consider the spat count shown above to be accurate because spat that did occur were bleached; numbers were out of proportion to rest of shells. The shells with spat were probably set at some previous time

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal Week of 12-18 Oct 1947

Period set 9 Oct to 17 Oct 47 Type of shell Quinni (600 per bu) Factor 30

Sample No. 115 Stake No. 1 Size of sample counted 20 shells (inside only) Factor 2

Oyster	0,0,0,0,0,0,0,0,0,0, 0,0,0,0,0,0,0,0,0,0		No. per bu. 0
spat			Av. size
Fouling organisms	Barnacles	19 30 20 24 48 33 33 47 34 21 (309) 26 74 9 9 9 52 78 21 6 44 (322) = 637	No. per bu. 38,220
	Bryozoa Membr. colonies	1 = 1	60
	Serpulids		

Remarks: These shells were generally covered with a thin layer of silt + much dirtier than the clean shells counted in 104 last night. Many of the barnacles were several days old. Only on 2 box colony of Bryozoa seen.

Counted by J. D. Andrews Date 4 Mar 48

L.J.

JAY DONALD ANDREWS

E. Thrasher - Nov. 7, 1947

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal — Week of 12-18 Oct 1947

Period set 9 Oct to 17 Oct — Type of shell Quinni (600 per bu) Factor 30

Sample No. 116 — Stake No. 2 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	0 0 0 0 0 0 0 0 0 0 (0) 0 0 1 0 0 0 0 0 0 0 (1) = 1		No. per bu. 60
			Av. size
Fouling organisms	Barnacles	30 33 5 60 10 29 5 5 32 17 (216) 152 89 56 10 29 52 24 19 31 18 (480) = 706	No. per bu. 42,360
	Membranipora	0 0 0 0 0 0 0 0 0 0 (0) 0 0 0 1 0 0 0 0 0 (1) = 1	No. per bu. 60

Note: Several shells had spat on fringes, but were assumed to be spat set at some other time, since they were large + bleached.

JAY DONALD ANDREWS

RECORD OF SET OF OSTREA AND ANOMIA ON SHELLS IN WIRE BAGS
(Size in mm.)

Oyster ground Wreck Shoal Period set 17 Oct to 23 Oct 47 Sample No. 121 Stake No. 1

Type of shell Quinns (600 per bu) Size of sample counted 20 shells (inside only) Factor 60

Oyster spat	Live		70		
	Dead	Boxes — Drilled			
		Boxes — Others			
		Scars			
Anomia	BARNACLES		6 6 5 5 7 0 4 9 13 8 (63)	1 0 1 5 0 0 3 9 32 5 (56) = 119	7140 per bu.

Counted by E Trawett Date Dec 20 '47

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS E. Prescott Nov. 13/1947

Oyster ground Wreck Shoal — Week of 19-25 Oct 1947

Period set 17 Oct to 23 Oct — Type of shell Quinni (600 per bu) Factor 30

Sample No. 122 Stake No. 2 Size of sample counted 20 shells inside only - factor - 2

Oyster		0 0 0 0 0 0 0 0 0 0 (0) 0 0 0 0 0 0 0 0 0 0 (0)	No. per bu. 0
spat			Av. size
Fouling organisms	Barnacles	2 0 0 1 1 0 0 6 1 1 (12) 2 1 0 1 0 0 1 7 0 1 (13) =25	No. per bu. 1500
	Memb	0 0 0 0 0 0 0 0 0 0 (0) 0 0 0 0 0 0 0 0 0 0 (0)	No. per bu. 0

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground WRECK SHOAL (weekly) Week of 2-8-NOV 47 194

Period set 23 Oct to 6 Nov 47 Type of shell Quinn's 600 per bu Factor 30

Sample No. 127 Stake No. 1 Size of sample counted 20 shells (inside only) Factor 2

Oyster		NONE	No. per bu. 0
spat			Av. size
Fouling organisms	Barnacles	1 3 9 1 4 1 8 6 3 0 (36) 3 7 9 3 13 7 0 0 2 2 (46) = 82	No. per bu. 4920
	Bryozoa colonies	NONE	0
	Sorpulids		

Remarks:

Counted by E. Tresselt Date NOV 28, '47

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Wreck Shoal Week of 2-8 Nov 1947

Period set 23 Oct to 6 Nov 47 Type of shell Quinn's - 600 per bu - factor 30

Sample No. 128 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat		0 0 0 0 0 0 0 0 0 0 0 (0) = 0	No. per bu. 0 / Av. size 0
Fouling organisms	Barnacles	4 2 0 8 10 1 2 2 4 8 4 5 1 2 1 6 0 1 4 1 2 (23) = 64	No. per bu. 3840
	MEMBRANIPORA	0 0 0 0 0 0 0 0 0 0 0 1 (1) = 1	No. per bu. 60

By E. Tressler, Nov. 1947

Weekly Spatfall on Deep Water Shoal, 1947

in

The James River Seed Area

Data on Setting of Oysters and Fouling Organism

on

20 to 40 shellpiles in ½ Bu. Shellbags

Jay D. Andrews

VIMS

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of 18-24 May 1947

Period set 21 May - 29 May Type of shell Quinn's (600 per bu.) Factor 30

Sample No. 3 Stake No. 1 Size of sample counted 20 shells inside shell - factor of 2

Oyster spat	None		No. per bu.
			Av. size
Fouling organisms	Barnacles	6/7/14/2/23/10/6/5/15/5 (93) | 52/23/2/4/3/1/1/0/45/0 (131) Av. 11.2 per shell	224 No. per bu. 13,440
			No. per bu.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 18-24 May 1947

Period set 21 May - 29 May — Type of shell Quinn's (600 per bu) Factor 60

Sample No. 4 Stake No. 2 Size of sample counted 10 shells inside only - factor of 2

Oyster spat	None		No. per bu. ____ Av. size ____
Fouling organisms	Barnacles	51/8/92/2/68/5/10/30/4/24 Av. 29.4 per shell = 294	No. per bu. 35,280
			No. per bu.

MEJ

JAY DONALD ANDREWS _____

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals* Week of 8-14 Jun 1947

Period set 1100 May 29 - 1345 Jun 11 Type of shell Quinn's (600 per bu) Factor 30

Sample No. 9 Stake No. 1 Size of sample counted 20 shells inside only - factor of 2

Oyster spat	None		No. per bu. _____ Av. size _____
Fouling organisms	Barnacles	75/2/10/7/5/5/1/2/3/2 (112) | 16/8/11/2/4/4/6/1/2/1 (55) Av. 8.4 per shell = 167	No. per bu. 10,020
			No. per bu.

* Shells covered with algae like growth + dirt

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals* Week of 8-14 Jun 1947

Period set 1100 May 29 - 1020 Jun 11 Type of shell Quinn's (600 per bu) Factor 30

Sample No. 10 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	None		No. per bu.
			Av. size
Fouling organisms	Barnacles	17/0/3/0/0/1/6/0/2/1 (30) | 3/10/6/0/0/1/2/4/3/4 (33) Av. 3.2 per shell = 63	No. per bu. 3,780
			No. per bu.

* Shells covered with algae-like growth + dirt

MEL

JAY DONALD ANDREWS _____

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of June 15-21 1947

Period set 1345 Jun 11 to 1630 Jun 18 Type of shell Quinns (600 per bu.) Factor 30

Sample No. 15 Stake No. 1 Size of sample counted 20 shells inside only - Factor 2

Oyster spat	None		No. per bu. _____ Av. size _____
Fouling organisms	Barnacles	13|0|1|12|3|2|1|12|4|0 (43) ‖ 4|14*|1|4|10|0|0|1|3|10 (42) Av. 4.8 per shell = 95	No. per bu. 5,700
		Top ↑ ——— ↑ Bottom	No. per bu.

* outside shell Quite a lot of dirt settled on shells

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 8-14 June 1947

Period set 1020 Jun 11 to 17 Jun 18 — Type of shell Quinni (600 per bu) Factor 30

Sample No. 16 Stake No. 2 Size of sample counted 20 shells INSIDE ONLY - factor 2

Oyster spat	None			No. per bu.
				Av. size
	BRISTLY SPONGE	0 0 0 0 0 0 0 0 0 0		
Fouling organisms	Barnacles	6 7 4 18 1 8 6 7 32 (62)	3 2 0 7 4 5 1 1 1 1 (25) Av. 4.4 per shell = 87	No. per bu. 5,220
	SERPULIDS	0 0 0 0 0 0 0 0 0 0		No. per bu.
	SPONGE SPOTS	0 0 0 0 0 0 0 0 0 0		
	BRYOZOA Colonies	0 0 2 0 0 0 1 0 2 2 (7)	2 2 1 3 1 0 0 3 3 0 (15) = 22	1,320

BRYOZOA LIKE COLONIES BUT SMALLER TOO NUMEROUS TO COUNT OF ABOUT 2/3 OF SHELLS COUNTED.

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoal

Week of 15-21 June 1947

Period set 1630 Jun 18 to 13? Jun 26

Type of shell Quinn's (600 per bu) Factor 30

Sample No. 21 Stake No. 1 Size of sample counted 20 shells (INSIDE ONLY) Factor 2

Oyster spat	None												No. per bu.
													Av. size
	Bristly Sponge	0	0	0	0	0	0	0	0	0	0		
Fouling organisms	Barnacles	4	1	0	1	0	0	0	1	0	0 (7)	0/0/0/0/0/0/0/0/0/0/ = 7	No. per bu. 420
	SERPULIDS	0	0	0	4	0	0	0	0	0	0 (4)	These must have been on an old shell previously exposed. = ~~4~~	No. per bu. ~~240~~
	RED SPONGE SPOT	0	0	0	0	0	0	0	0	0	0		
	BRYOZOA COLONIES	3	2	2	1	1	3	2	0	5	2 (21)	3/11/6/6/1/7/9/5/7/8 (63) = 84	5040

BRYOZOA LIKE COLONIES BUT SMALLER, FIFTEEN ON ONE SHELL.

Most of the bryozoa colonies are very small - at least half being a single cell.

f.z.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground DEEP WATER SHOALS Week of JUNE 22-28 1947

Period set 18 JUNE to 26 Jun Type of shell Quinn's (600 per bu.) Factor

Sample No. 22 Stake No. 2 Size of sample counted 20 shells (INSIDE only) - factor 2

			No. per bu.
Oyster spat	None		
	Bristly Sponge	0 0 0 0 0 0 0 0 0 0	Av. size
Fouling organisms	Barnacles	2 0 0 2 0 0 0 1 0 (3) = 6 2 1 (3)	No. per bu. 360
	SERPHLIDS	0 0 0 0 0 0 0 0 0 0 0	No. per bu.
	Red Sponge Spots	0 0 0 0 0 0 0 0 0 0	
	BRYZOA Colonies	3 0 1 0 1 1 0 0 2 0 (8) = 42	2520

Membranipora: 1 | 2 2* 4* (2*)3 2* 1 (1*)3 4* 3* 2 2* 1 (4*)5 (5) (29)

* Ancestrula only

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of June 29 - July 5 1947

Period set 1100 Jun 26 to 1030 Jul 2 — Type of shell Quinn's (600 per bu) Factor 30

Sample No. 28 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2

Oyster spat	None		No. per bu.
			Av. size
Fouling organisms	Barnacles	1/7/0/0/1/0/2/1/1/0 (13) ‖ 0/0/0/0/0/0/3/0/0/0 (3) = 16	No. per bu. 960
			No. per bu.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 6-12 July 1947

Period set 1230 Jul 2 - 1100 Jul 10 — Type of shell Quinn's (600 per bu.) Factor 30

Sample No. 33 Stake No. 1 Size of sample counted 20 shells (inside only) factor 2

Oyster spat	None		No. per bu. ____ Av. size ____
Fouling organisms	Barnacles	11 | 1 | 9 | 50* | 17 | 3 | 11 | 9 | 5 | 4 (120) — 2 | 10 | 15 | 3 | 1✓ | 9 | 4 | 12 | 0 | 9 (65) = 185 — Av. 9.3 per shell	No. per bu. 11,100
	Bryozoa colonies	2 | 0 | 0 | 0 | 2 | 4 | 3 | 0 | 0 | 1 (12) — 2 | 3 | 0 | 2 | 0 | 1 | 0 | 3 | 1 | 0 (12) = 24	No. per bu. 1,440

First four shells observed immediately after taking up while still wet - nothing new. Quite a lot of dirt has settled on shells

* outside shell

✓ a network of jelly like tubes over this shell

MEL

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of July 6-12 1947

Period set 2 July to 10 Jul Type of shell QUINNS (600 per bu) (Factor 30)

Sample No. 34 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster	None																							No. per bu.
spat	NO SPAT																							Av. size
	Bristly Sponge	0	0	0	0	0	0	0	0	0	0	0												
Fouling organisms	Barnacles	20	8	14	17	10	9	4	2	11	4	99	7	2	16	19	15	9	7	11	2 (90)	2	=189	No. per bu. 11,340
	Serpulids	0	0	0	0	0	0	0	0	0	0	0												No. per bu.
	Red Sponge Spots	0	0	0	0	0	0	0	0	0	0	0												
	Bryzoa Colonies	1	1	1	2	1	1	0	0	0	0	7	1		3	2	4	3	4	4	8 (32)	3	= 39	2,340

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 13-19 July 1947

Period set 1100 Jul 10 to 1115 Jul 17 — Type of shell Quinns (600 per bu.) Factor 30

Sample No. 39 Stake No. 1 Size of sample counted 20 shells inside only - Factor of 2

Oyster spat	None			No. per bu.
				Av. size
Fouling organisms	Barnacles	10 5 12 4 183 9 5 15 3 3 (249) 9 22 5 27 9 18 16 11 25 27 (169)	Av. 20.9 per shell =418	No. per bu. 25,080
	Bryozoa colonies	1 0 0 0 0 0 0 0 0	=1	No. per bu. 60

Nearly all shells covered with worm head like white bodies - apparently without tails this time. These shells are much dirtier than Wreck Shoal shells - a regular coat of sand grains, dirt & things on it

7482

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of 13-19 July 1947

Period set 1100 Jul 10 to 1115 July 17 Type of shell Pumis (600 per bu.) Factor 30

Sample No. 40 Stake No. 2 Size of sample counted 20 shells inside only - Factor 2

Oyster spat	0-0-0-0-2-0-0-0-1-0 (5) (9) 525-800 325	0 → 0 → 0 = 3	No. per bu. 180
			Av. size
Fouling organisms	Barnacles	7/7/7/15/15/14/76/13/0/2 (156) 4/0/8/5/21/4/32/12/19/42 (147) Av. 15.2 per shell = 303	No. per bu. 18,180
		1 1 = 2	No. per bu. 120

THE L

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of 20-26 July 1941

Period set 1115 Jul 17 to 1230 Jul 24 Type of shell Quinns (600 per bu) Factor 20

Sample No. 45 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	0,1,0,0,1 = 2 = 0 = 2 300,250		No. per bu. 120 Av. size
Fouling organisms	Barnacles	14 25 9 27 14 51 13 7 8 7 (175) || 7 6 10 19 9 13 29 53* 6 2 (154) = 329	No. per bu. 19,740
	Bryozoa colonies	5 1 2 0 0 5 4 2 0 2 (21) || 1 0 1 2 3 5 6 4 1 0 (23) = 44	No. per bu. 2,640

* outside shell facing out

These shells had the usual coating of dirt characteristic of D.W.S. The yellow green spots I have not noticed particularly before.

Most of the Bryozoa (colonies) consist mostly of the ancestrula.

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 20-26 Jul 1947

Period set 1115 Jul 17 to 1100 Jul 24 — Type of shell Quinni (600 per bu) Factor 30

Sample No. 46 Stake No. 2 Size of sample counted 20 shells inside only - factor - 2

Oyster spat	None		No. per bu.
			Av. size
Fouling organisms	Barnacles	4 7 13 15 24 5 2 11 7 3 (91) 25 9 22 4 19 11 22 3 10 7 (132) = 223	No. per bu. 13,380
		0 3 0 2 1 2 0 6 (14) 2 1 2 0 2 2 1 1 1 0 (12) = 26	No. per bu. 1,560

JDA. Numerous small green-yellow flakes on shell - some peeling. These may be part of thin membrane covering shell after shucking as a definite layer of material peels off when rubbed. Also many of the white granular or sperm-head-like structures.

Range of Barnacles set this week 375 - 12504 in width

MEZ

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E. F. Thrasher, Oct. 22, '47

Oyster ground Deep Water Shoals — Week of 20-26 July 194__

Period set 24 July 47 to 30 Jul 47 — Type of shell Quinni (600 per bu) Factor 30

Sample No. 51 — Stake No. 1 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	0 0 0 0 1 0 0 0 0 1 (2) 0 1 0 0 0 1 0 0 1 0 (3) = 5		No. per bu. 300
			Av. size
Fouling organisms	Barnacles	18 88 48 16 72 28 32 8 24 93 (427) 19 18 15 45 19 38 26 9 91 67 (347) = 774	No. per bu. 46,440
	MEMBRANIPORA	1 1 1 0 0 1 0 0 1 1 (6) 1 1 2 1 0 0 2 0 0 0 (7) = 13	No. per bu. 780

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of July 27 - Aug 2 1947

Period set 1100 Jul 24 to 1400 Jul 30 Type of shell Quinnis (600 per bu) Factor 30

Sample No. 52 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	0,0,0,0,0,0,1,0,0,0 = 1 0,0,0,1,0,0,0,1,0,0 = 2 = 3 625 250 | 400		No. per bu. 180 Av. size
Fouling organisms	Barnacles	26 | 23 | 6 | 21 | 18 | 43 | 23 | 26 | 44 | 37 (267) ; 26 | 21 | 48 | 14 | 17 | 8 | 14 | 17 | 18 | 43 (226) = 493	No. per bu. 29,580
	Bryozoa colonies	1 ; 2 | 2 ; 1 = 6	No. per bu. 360

Most of the barnacles are relatively large for a 1 week set - must have set early in week. Counted by JDA
Usual millions of white sperm-head like objects.

JDA.EZ

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 3-9 August 1947

Period set 30 Jul - 8 Aug. — Type of shell Quinnie (600 per bu) factor 30

Sample No. 57 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	3,2,0,2,1,4,3,6,0,2 = 23 5,2,0,2,4,0,3,0,3,0 = 19 = 42		No. per bu. 2,520 Av. size
Fouling organisms	Barnacles	144 26 61 18 46 75 22 38 76 52 (558) — 50 188 90 9 42 9 63 72 20 47 (590) = 1148	No. per bu. 68,880
	Membranipora	11 9 5 3 13 4 8 10 14 6 (83) — 41 1 12 5 4 5 7 8 (83)	
	Bryozoa*	1 1 1 3 3 (9) — 1 (10)	166 No. per bu. 9960
	Acanthodesia		

*Ancestrula not counted - many present

Most of barnacles very large

JAY DONALD ANDREWS

16 12

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS E.F. Irasselt Oct. 18, 1947

Oyster ground Deep Water Shoals Week of 3-9 Aug 1947

Period set 30 Jul to 8 Aug Type of shell Quinni (600 per bu) factor 30

Sample No. 58 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	0 1 6 1 1 1 1 1 0 1 (13) 1 0 2 1 3 5 2 1 0 1 (16) = 29		No. per bu. 1740
			Av. size
Fouling organisms	Barnacles	24 124 20 13 +1 28 44 37 59 35 (425) 6 77 137 75 152 46 18 38 8 37 (594) = 1019	No. per bu. 64,140
	MEMBRANIPORA	4 3 2 3 11 15 3 25 10 10 (86) 8 5 20 15 14 4 13 3 8 10 (100) = 186	No. per bu. 11,160

Note: Shells were very dirty.
- Many spat in this basket were large and well developed.
EFI.

MEF

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of Aug 10-16 1947

Period set 8 Aug. to 14 Aug — Type of shell Quinnis (600 per bu) factor 30

Sample No. 63 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	0,0,0,1,2,1,0,0,0 = 5 1,0,0,0,1,0,0,0,0,2 = 4 = 9 925 | 625 | 900, 600 | 700 | 1025 | 650 | 900, 1125 | = 647	No. per bu. 540 Av. size
Fouling organisms — Barnacles	120 20 21 17 25 56 15 131 11 17 (435) 4 8 0 9 22 18 114 4 17 18 (214)	No. per bu. 38,820
Fouling organisms — Bryozoa / Membranipora	(19*) (4*) (1*) (2*) (1*) (11*) (1*) (7*) (2*) (4*) 49 31 5 4 3 2 19 3 10 4 3 84 (4) (10) (5) (12) (9) (9) (2) (3) (2) (2) 58 12 15 14 14 9 15 3 7 4 5 98 = 182	No. per bu. 10,920
Fouling organisms		

* Ancestrula only

Membranipora crustulenta (those in parenthesis included in total.
Acanthodesia tenuis

11-20 counted 1 Sept 47

MEL

JAY DONALD ANDREWS

E. Prassack
Oct 15, 1947

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 10-16 Aug 1947

Period set 8 Aug to 14 Aug 47 — Type of shell Quinnie (600 per bu) factor 30

Sample No. 64 — Stake No. 2 — Size of sample counted 20 shells inside only - factor 2

Oyster spat	2 1 2 0 1 1 1 0 2 2 (12) 1 1 0 3 0 0 0 1 0 0 (6) = 18		No. per bu. 1080
			Av. size
Fouling organisms	Barnacles	21 6 27 35 25 11 16 10 23 8 (182) 65 0 74 10 12 1 4 26 13 7 (212) = 394	No. per bu. 23,640
	Membranipora	19 7 7 14 10 2 4 3 8 13 (87) 5 12 23 24 3 17 7 7 1 (100) 187	No. per bu. 1,1220

Note: Shells were very dirty; hard to count. Membranipora not considered too accurate.

213
182
394

MCR

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground: Deep Water Shoals   Week of: 17-23 August 1947

Period set: 14 Aug to 21 Aug   Type of shell: Quinns (600 per bu) - factor = 30

Sample No. 69   Stake No. 1   Size of sample counted: 20 shells inside only - factor 2

Oyster spat	1, 2, 0, 0, 0, 1, 0, 0, 1, 1 = 6 - 0, 1, 0, 1, 1, 0, 0, 1, 1, 3 = 8 = 14	No. per bu. 840
	550 / 750, 625 / 1500 / 1450 / 625 / 1500 / 600 / 1000 / 550 / 600 / 1250, 700, 950 / = 380	Av. size

Fouling organisms:

	1	2	3	4	5	6	7	8	9	10	Total	11	12	13	14	15	16	17	18	19	20	Total	No. per bu.
Barnacles	15	90	5	39	7*	10	24	13	5	11	(219)	48	22	15	11	21	16	2	19	3	4	(161)	22,800
Membranipora		1		7	6	*	*		2*		(16*)	(6) 7	(35) 38	(58) 64	0	1	1	0	3	2	3	(119)	7,140

* many ancestrula not counted

11-20 (ancestrula counted first 3 shells only in parentheses + included in total. Many probably missed!

Not counted as colonies of the 3rd shell unless first dau. zooecium is complete.

MEL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E.F. Bissett Oct. 4, 1947

Oyster ground Deep Water Shoals — Week of 17-23 Aug 1947

Period set 14 Aug to 21 Aug — Type of shell Quinni (600 per bu) factor 30

Sample No. 70 — Stake No. 2 — Size of sample counted 20 shells - inside only - factor 2

Oyster spat	0 1 1 1 0 2 1 0 1 0 (7) 3 0 1 1 1 3 0 1 1 1 0 2 (12) = 19	No. per bu. 1140
	= 676	Av. size
Fouling organisms — Barnacles	22 15 13 17 8 66 16 15 31 19 (222) 13 9 16 54 199 73 23 10 31 26 (454)	No. per bu. 40,560
Membranipora	22 17 9 0 7 6 12 15 8 3 (99) 3 6 17 4 3 5 15 9 2 11 (75)	No. per bu. 10,440
	= 174	

Note! - Membranipora ancestrala abundant
- Spat scarce

MER

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 24-30 August 1947

Period set 21 Aug - 28 Aug. — Type of shell Quinns (600 per bu) - factor 30

Sample No. 75 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	f	8,4,8,2,3,9,5,9,5,3 = 56	No. per bu. 6,540
	f	3,3,12,5,10,5,5,2,5,3 = 53	
		= 109	Av. size
		= 1468	
Fouling organisms	Barnacles	F: 17, 35, 254, 7, 135-90, 43, 127, 56, 88, 24, 786, 27, 69, 18, 35, 40, 280, 84, 66, 52, 54 (682)	No. per bu. 88,080
	Membranipora	22, 77, 49, 17, 56-21, 26, 18, 13, 11, 16, (305), 6, 5, 12, 33, 18, 56, 4, 15, 2, 10 (161)	No. per bu. 27,960
	Acanthodesia	1, 2, (3), 1, 1	= 466
	Mussels	B: 1, 1-2, (1)	= 5 300
			= 2 120

Only those bryozoa with at least one daughter animal were counted. JD Andrews 26 Apr 48

F = face of shell
B = back

L.3.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E. F. Wesselt Oct. 17, 1947

Oyster ground Deep Water Shoal — Week of 24-30 Aug. 1947

Period set 21 Aug to 28 Aug. — Type of shell Quinns (600 per bu)-factor 30

Sample No. 76 — Stake No. 2 — Size of sample counted 20 shells inside only - factor

Oyster spat	2 0 2 0 0 2 6 0 4 1 (17) 5 3 0 2 3 3 4 3 5 4 (32) = 49		No. per bu. 2940
		= 782	Av. size 169 / 57 / 226
Fouling organisms	Barnacles: 46 117 12 22 31 19 33 3 22 19 (324) 32 112 3 22 57 13 158 4 35 27 (463)		No. per bu. 27780
	Membranipora: 38 7 0 51 20 9 18 12 23 27 (205) 43 9 55 35 36 18 27 57 (360) 66 14	= 565	No. per bu. 33,900

Note; Shells were very dirty; Membranipora count not considered too accurate, EFT.

MEL

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 31 Aug - 6 Sept 1947

Period set 28 Aug to 4 Sept 47 — Type of shell Quinni (600 per bu) — Factor 30

Sample No. 81 — Stake No. ____ — Size of sample counted 20 shells (inside only) — Factor 2

Oyster	2, 9, 12, 6, 3, 6, 3, 7, 14 = 62 3, 7, 5, 4, 4, 12, 4, 5, 6, 2 = 52 = 114		No. per bu. 6,840
spat			Av. size
Fouling organisms	Barnacles	6 8 9 26 45 13 55 15 27 4 (208) 2 49 4 6 36 55 6 37 12 69 (276) = 484	No. per bu. 29,040
	Bryozoa (Membranipora) colonies (Acanthodesia)	9 4 6 10 16 2 6 6 6 4 (69) 2 19 11 12 5 18 9 1 9 6 (92) = 161 1 = 1	9,660 / 60
	Serpulids		

Remarks: only colonies of Bryozoa counted not ancestrula alone — Counted by J. D. Andrews — Date 27 Apr 48

LJ

JAY DONALD ANDREWS

RECORD OF SET OF OSTREA AND ANOMIA ON SHELLS IN WIRE BAGS
(Size in mm.)

Oyster ground: Deep Water Shoals Period set: 28 Aug 4 Sept 47 Sample No. 82 Stake No. 2

Type of shell: Quinni (600 per bu) Size of sample counted: 20 shells (inside only) Factor: 60

Oyster spat – Live	2	5	2	2	5	3	5	5	3	0	(32)	6	1	4	0	2	2	1	1	2	0	(14)	= 51	No Per bu. 3060
Oyster spat – Dead – Boxes – Drilled																								
Oyster spat – Dead – Boxes – Others																								
Oyster spat – Dead – Scars																								
BARNACLES	17	7	10	8	1	40	13	9	13	12	(130)	6	16	15	10	3	17	2	0	19	79	(167)	= 297	17,820
MEMBRANIPORA	16	2	12	10	0	9	36	6	1	3	(95)	2	23	7	10	4	9	13	4	5	3	(80)	= 175	10,500
Anomia																								

Counted by E. Trussell Date DEC 29, 47

88
79
167

2.3

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of 7 - 13 Sept 1947

Period set 4 Sept to 11 Sept Type of shell Quinns (600 per bu) Factor 30

Sample No. 87 Stake No. ____ Size of sample counted 20 shells (inside only) Factor 2

Oyster spat		3, 5, 2, 0, 3, 3, 4, 2, 12, 4 = 38 2, 3, 2, 4, 0, 1, 0, 2, 1, 9 = 24 = 62	No. per bu. 3,720
			Av. size
Fouling organisms	Barnacles	125 | 69 | 102 | 35 | 9 | 3 | 152 | 66 | 183 | 18 (762) 32 | 145 | 15 | 59 | 26 | 91 | 28 | 122 | 27 | 78 (623) = 1,385	No. per bu. 83,100
	Bryozoa colonies (Membranipora)	20 | 15 | 0 | 1 | 1 | 15 | 2 | 1 | 7 | 5 (67) 10 | 3 | 0 | 11 | 1 | 0 | 0 | 1 | 0 | 8 (34) = 101	6,060
	Serpulids		

Remarks:

Counted by J. D. Andrews Date 27 Apr 48

J. J.

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E. F. Truscott
Oct 2, 1947

Oyster ground Deep Water Shoals Week of 7-13 Sept 1947

Period set 4 Sept. to 11 Sept. Type of shell Quinni (600 per shell) factor 30

Sample No. 88 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	4 1 3 1 3 2 3 8 0 6 (25) 1 4 2 2 1 0 2 4 9 3 (28) = (53)		No. per bu. 3180
		= 955	Av. size
Fouling organisms	Barnacles	125 2 11 17 24 22 35 57 60 3 (456) 1 6 2 4 2 12 7 3 13 5 6 9 3 4 5 3 (499)	No. per bu. 57,300
	Membranipora	19 0 6 23 18 28 10 8 6 5 (123) 4 4 7 15 4 17 8 25 6 10 (100) = 223	No. per bu. 13,380

Note: large # of Membranipora, ancestrula.

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 14-20 Sept 1947

Period set 11 Sept to 18 Sept 47 — Type of shell Quinns (600 per bu) — Factor 30

Sample No. 93 — Stake No. ____ — Size of sample counted 20 shells (inside only) — Factor 2

Oyster spat	0,3,1,0,1,1,0,2,2,1, = 8 1,0,0,0,0,0,0,0,0,1 = 2 = 10		No. per bu. 600
			Av. size
Fouling organisms	Barnacles	117 35 33 92 27 25 14 87 17 64 (511) 26 4 27 240 29 29 37 81 15 111 (594) = 1,110	No. per bu. 66,600
	Membranipora Bryozoa colonies	2 1 1 1 1 1 2 (9) 1 25 2 0 4 1 1 (34) = 43	2,580
	Serpulids		

Remarks: Ancestrulae not counted.

Counted by J. D. Andrews Date 29 Apr 48

L.J.

JAY DONALD ANDREWS .....

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E.F. Tressler Sept. 26, '47

Oyster ground Deep Water Shoals — Week of 14-20 Sept 1947

Period set 11 Sept to 18 Sept — Type of shell Quinni (600 per bu) - factor 30

Sample No. 94 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	0 1 0 2 0 0 0 0 0 0 (3) 1 0 0 2 0 0 2 0 0 0 (5) = 8		No. per bu. 480
			Av. size
Fouling organisms	Barnacles	78 4 9 9 1 12 4 27 5 37 (188) 64 17 24 4 2 26 22 10 11 3 (183) = 391	No. per bu. 22,260
	Membranipora	3 2 3 3 2 0 4 3 1 2 (23) 1 1 15 7 17 2 7 5 1 4 (60) = 83	No. per bu. 4,980

Note: - Membranipora ancestrula very abundant
- spat not found on most shells; were small

WSL

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 21 - 27 Sept 1947

Period set 18 Sept - 26 Sept — Type of shell Quinni (600 per bu) factor 30

Sample No. 99 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	1,0,1,1,0,2,3,0,0,0 = 8 1,0,1,1,0,0,0,0,2,0 = 5 = 13		No. per bu. 780 Av. size
Fouling organisms	Barnacles	45 54 55 75 13 21 185 25 33 20 (526) 56 90 53 25 9 23 16 25 29 10 (336) 862	No. per bu. 51,720
	Membraniporz Bryozoa	3 1 9* 9* 14* 7 5 15 13 9 (85) 10 5 2 2 4 6 11 14 11 12 77	No. per bu. 4,620

* Many ancestrulae

Counted by JDA

MEE

JAY DONALD ANDREWS

E. Trasselt Oct. 23, '47

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of 21-27 Sept 1947

Period set 18 Sept to 26 Sept 47 Type of shell Quinni (600 per bu) Factor 30

Sample No. 100 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	0 0 0 0 0 0 0 0 0 0 (0) 0 1 1 1 1 0 2 0 0 0 (6) = 6		No. per bu. 360
			Av. size
Fouling organisms	Barnacles	4 1 45 6 6 3 14 14 4 0 (97) 15 2 71 2 13 9 79 10 0 16 (277) = 314	No. per bu. 18,840
	MEMBRANIPORA	5 18 6 16 15 6 5 6 5 5 (87) 8 10 37 10 18 8 3 16 35 7 152 = 239	No. per bu. 14,340

L.J.

JAY DONALD ANDREWS

E. Trowbridge Oct. 13, '47

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals — Week of 28 Sept - 4 Oct 1947

Period set 26 Sept to 2 Oct — Type of shell Quinni (600 per bu) factor 30

Sample No. 105 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster spat	0 0 0 0 1 0 1 0 0 0 (2) 0 0 1 0 0 1 0 0 0 1 (3) = 5		No. per bu. 300
			Av. size
Fouling organisms	Barnacles	5 1 3 1 7 14 0 5 8 7 (51) 34 23 7 8 0 5 2 2 1 63 (145) = 196	No. per bu. 11,760
	BRYOZOA Membranipora	1 0 0 0 0 0 0 0 (1) 0 0 0 0 1 0 0 0 0 0 (1) = 2	No. per bu. 120

Note: - Barnacles were small in size
- Spat were average size.
- Only occasional ancestrula.

MEL

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of _____ 194__

Period set 26 Sept to 2 Oct 47 Type of shell Quinni (600 per bu) Factor 30

Sample No. 106 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2

Oyster	0,0,0,0,0,0,0,1 0,0,0,0,0,0,1,0,0 = 2		No. per bu. 120
spat			Av. size
Fouling organisms	Barnacles	4 0 2 3 5 2 0 5 24 0 (45) 0 0 3 1 0 5 1 1 5 1 (17) = 62	No. per bu. 3720
	Bryozoa colonies		
	Serpulids		

Remarks: Very clean shells Counted by J.D. Andrews Date 29 Apr 48

L.J.

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of 5-11 Oct 1947

Period set 2 Oct to 9 Oct 47 Type of shell Quinni (600 per bu) Factor 30

Sample No. 111 Stake No. 2 Size of sample counted 20 shells (inside only) Factor 2

Oyster	0,0,0,0,0,0,0,0,0,0 0,0,0,0,0,0,0,0,0,0		No. per bu. 0
spat			Av. size
Fouling organisms	Barnacles	4 1 7 10 9 6 0 8 10 20 (175) 4 3 4 2 10 2 2 5 0 0 (37) = 107	No. per bu. 5420
	Bryozoa colonies		
	Serpulids		

Remarks: Clean shells Counted by J. D. Andrews Date 29 Apr 48

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoal Week of 5-11 Oct 1947

Period set 2 Oct to 9 Oct 47 Type of shell Quinnis 600 per bu. - factor 30

Sample No. 112 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster spat	1	≥1	No. per bu. 60
			Av. size
Fouling organisms	Barnacles	4 2 1 0 12 6 0 1 4 (21) 0 6 0 8 1 1 2 0 17 1 (36)	=51 No. per bu. 3420
	MEMBRANIPORA	0	0 No. per bu. 0

Counted by. E. Transelt - Dec. 20, '47

LJ

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of 12-18 Oct 1947

Period set 9 Oct to 17 Oct 47 Type of shell Quinns (600 per bu) Factor 30

Sample No. 117 Stake No. _____ Size of sample counted 20 shells (inside only) Factor 2

Oyster		0 0	No. per bu.
spat			Av. size
Fouling organisms	Barnacles	10 11 6 8 15 13 58 11 5 4 (141) 22 14 16 6 14 13 8 18 1 37 149 = 290	No. per bu. 17,400
	Bryozoa colonies	None	
	Serpulids		

Remarks: clean

Counted by J. D. Andrews Date 30 Apr 48

L.J.

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

E. Trassett Nov. 10, 1947

Oyster ground Deep Water Shoals Week of 12-18 Oct 1947

Period set 9 Oct to 17 Oct Type of shell Quinns (600 per bu.) factor 30

Sample No. 118 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

		Counts (shells 1–10)	Subtotal	Counts (shells 11–20)	Subtotal	
Oyster spat		0 0 0 0 0 0 0 0 0 0	0	0 0 0 0 0 0 0 0 0 0	0	No. per bu. 0
						Av. size
Fouling organisms	Barnacles	5 23 11 12 0 2 11 9 10 1	(84)	8 24 5 32 19 19 10 0 18 17	(152) =236	No. per bu. 14160
	Membranipora	0 0 0 0 0 0 0 0 0 0	0	0 0 0 0 0 0 0 0 0 0	0	No. per bu. 0

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS E. Tressler Nov. 5, 1947

Oyster ground Deep Water Shoals — Week of 19-25 Oct 1947

Period set 19 Oct 47 to 23 Oct 47 — Type of shell Quinns (600 per bu) factor 30

Sample No. 23 — Stake No. ____ — Size of sample counted 20 shells inside only - factor 2

Oyster	0 0 0 0 0 0 0 0 0 0 (0) 0 0 0 0 0 0 0 0 0 0 (0) =0		No. per bu. 0
spat			Av. size
Fouling organisms	Barnacles	1 1 4 4 0 0 11 0 1 0 (22) 4 1 0 0 4 4 0 1 1 1 (16) = 38	No. per bu. 2280
	MEMBRANIPORA	0 0 0 0 0 0 0 0 0 0 (0) 0 0 0 0 0 0 0 0 0 0 (0) =0	No. per bu. 0

Note: Spat scars observed (16); did not look recent (bleached, etc.)

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of 19-25 Oct 1947

Period set 17 Oct to 23 Oct 47 Type of shell Quinnis 600 per bu. - factor 30

Sample No. 124 Stake No. 2 Size of sample counted 20 shells (inside only - factor 2

Oyster spat		NONE	No. per bu. 0
			Av. size
Fouling organisms	Barnacles	0 0 0 1 2 1 1 1 1 0 (7) 2 0 0 2 2 5 0 0 2 0 (13) =20	No. per bu. 1200
			No. per bu. 0

COUNTED BY E. Tasselt NOV. 28, '47

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground Deep Water Shoals Week of 2-8 Nov 1947

Period set 23 Oct to 6 Nov 47 Type of shell Quinn's - 600 per bu - factor 30

Sample No. 129 Stake No. 1 Size of sample counted 20 shells inside only - factor 2

Oyster		0 0 0 0 0 0 0 0 0 0 (0) 0 0 0 0 0 0 0 0 0 0 = 0	No. per bu. 0
spat			Av. size
Fouling organisms	Barnacles	6 4 1 0 0 4 10 2 1 12 (40) 1 4 1 0 3 0 0 1 0 12 (22) = 62	No. per bu. 3720
	Membranipora	0 0 0 0 0 0 1 0 0 0 (1) 0 0 0 0 0 0 0 0 0 0 (0) = 1	No. per bu. 60

Counted by: E. F. Tresselt

p. 3

JAY DONALD ANDREWS

WEEKLY STRIKE OF SPAT AND FOULING ORGANISMS

Oyster ground DEEP WATER SHOAL Week of 5 Nov 47 1947

Period set 23 Oct to 5 Nov 47 Type of shell Quinnis 600 per bu. - factor 30

Sample No. 130 Stake No. 2 Size of sample counted 20 shells inside only - factor 2

Oyster			No. per bu.
spat			Av. size
Fouling organisms	Barnacles	2 1 2 12 10 0 8 5 12 2 (54) 3 11 0 5 2 4 2 31 2 1 (61) = 115	No. per bu. 6900
	MEMBRANIPORA	2 1 (3) 1 1 (2) = 5	No. per bu. 300

COUNTED BY E. Tressler Nov 28, 47