1949

Weekly oyster spatfall on shellbags, 1948 & 1949 in the James River seed area

J. D. Andrews
Virginia Fisheries Laboratory

WEEKLY OYSTER SPATFALL ON SHELLBAGS, 1948 & 1949

IN

THE JAMES RIVER SEED AREA

DATA SHEETS FOR

WRECK SHOAL IN 1948

AND

BROWN SHOAL, WRECK SHOAL AND DEEP WATER SHOAL, 1949

JAY D. ANDREWS

VIRGINIA INSTITUTE OF MARINE SCIENCE

Weekly Spat Strike - Wreck Shoal - 1948
(Shellbags)

Dates set	Days set	No. of spat counted on groups of 10 shellfaces	Total of spat counted	*No. spat per bu.	Av. no. of spat per shell	Spat per day per shell
28 May-10 Jun	13	0	0	0	0	0
10 Jun-17 Jun	7	0,0	0	0	0	0
17 Jun-24 Jun	7	0,0	0	0	0	0
24 Jun- 1 Jul	7	0,0	0	0	0	0
1 Jul- 8 Jul	7	4,4	8	480	.80	.11
8 Jul-15 Jul	7	11,13	24	1,440	2.40	.34
15 Jul-22 Jul	7	32,23,38,51	144	4,320	7.20	1.03
22 Jul-29 Jul	7	30,40,26,19	115	3,450	5.75	.82
29 Jul- 5 Aug	7	9,28,12,15	64	1,920	3.20	.46
5 Aug-12 Aug	7	49,53,34,37	173	5,190	8.65	1.24
12 Aug-19 Aug	7	76,96,51,64	287	8,610	14.35	2.05
19 Aug-26 Aug	7	76,91,163,91	421	12,630	21.05	3.01
26 Aug- 2 Sep	7	242,159,193,122	716	21,480	35.80	5.11
2 Sep-9 Sep	7	75,81,50,62	268	8,040	13.40	1.91
9 Sep-16 Sep	7	106,124	230	13,800	23.00	3.29
16 Sep-24 Sep	8	132,192,126,141	591	17,730	29.55	3.69
24 Sep-30 Sep	6	15,26	41	2,460	4.10	.68
30 Sep- 7 Oct	7	3	3	360	.60	.09

*To convert total spat counted to number of spat per bushel of shells, double actual count and multiply by 600 (shells per bushel) divided by number of shellfaces examined. Because of rugosity of back of valves, more spat usually set there than on the face of valves.

Spat Strike - Wreck Shoal - 1948

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	Spat counted	Spat per bushel	Spat per shell	Percentage of total set
1 July*	98	3,085	101,910	169.85	100.0
8 July	91	3,077	101,430	169.05	99.5
15 July	84	3,053	99,990	166.65	98.1
22 July	77	2,909	95,670	159.45	93.9
29 July	70	2,794	92,220	153.70	90.5
5 Aug	63	2,730	90,300	150.50	88.6
12 Aug	56	2,557	85,110	141.85	83.5
19 Aug	49	2,270	76,500	127.50	75.1
26 Aug	42	1,849	63,870	106.45	62.7
2 Sep	35	1,133	42,390	70.65	41.6
9 Sep	28	865	34,350	57.25	33.7
16 Sep	21	635	20,550	34.25	20.2
24 Sep	13	44	2,820	4.70	2.8
30 Sep	7	3	360	.60	.4

*No spat were found on shells placed in the water prior to 1 July 1948.

Weekly Oyster Spatfall on Shellbags, 1948
in
The James River Seed Area

Data on 20 to 40 Shellfaces
from
Quarter-Bushel Shellbags
28 May to 7 October, 1948

Jay D. Andrews
VIMS

WEEKLY OYSTER SPATFALL

Oyster ground Wrech Shoal Period set 28 May to 10 Jun 48

Type of shell Elliotts No. of shells counted 10 (inside only)

Sample No. 300 Stake No. 3	0,0,0,0,0,0,0,0,0,0,	Av. No. per shell 0
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 0	Av.

Remarks: Counted by J D. Andrew Date 10 Jun 48

See notes 10 June 48

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 10-17 Jun 48

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 301 Stake No. 3	0-0-0-0-0-0-0-0-0-0 = 0 0-0-0-0-0-0-0-0-0-0 = 0	Av. No. per shell 0
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 0	Av. 0

Remarks: Counted by R. L. HOFFMAN Date JULY 9, 1948

An occasional barnacle (less than 1 per shell) is all I find on these shells

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 17 to 24 Jun 48

Type of shell Elliotts No. of shells counted 20 (inside only)

Sample No. 302 Stake No. 3	0, 0, 0, 0, 0, 0, 0, 0, 0, 0 0, 0, 0, 0, 0, 0, 0, 0, 0, 0	Av. No. per shell 0
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 0	Av.

Remarks: Counted by R. L. Hoffman Date 6-15-48

Checked by JDA

no fouling organisms

only an occasional Membranipora seen. Otherwise the shells remained quite clean - no dirt or organisms present.

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 24 Jun to 1 July 48

Type of shell Elliotti No. of shells counted 20 (inside only)

Sample No. 303 Stake No. 3	0,0,0,0,0,0,0,0,0,0 0,0,0,0,0,0,0,0,0,0,	Av. No. per shell 0
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total	Av. 0

Remarks: Counted by R. L. Hoffman Date 25 June 48
checked by JDA

Barnacles - only 4 very small ones seen.

Bryozoa - a little on 2 shells - occasional Membranipora

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 1 to 8 Jul 48

Type of shell Elliotti No. of shells counted 20 (inside only)

Sample No. 304	0,0,0,3,0,1,0,0,0,0, = 4	Av. No. per shell
Stake No. ____	0,0,0,1,0,0,0,2,0,1 = 4	.4
	Size 250, 275, 250, 250, 475, 300	
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 8	Av. .4

Remarks: Counted by J. D. Andrews Date 9 Jul 48

Barnacles average 15-20 per shell; Membranipora 6-8 per shell and Acanthodesia about 5 per shell.

All these first oyster spat are very small and probably set 7 or 8th of July. Most of them had no dissoconch shell at all.

JAY DONALD ANDREWS

WEEKLY OYSTER SPATFALL

Oyster ground WRECK SHOAL JAMES RIVER Period set 8-15 Jul 48

Type of shell Elliotts No. of shells counted 20 (inside only)

Sample No. 305	1-2-0-1-1-0-1-2-2-1 = 11	Av. No. per
Stake No. 3	2-1-1-0-0-3-1-1-2-2 SBA = 13	shell
Sample No. ___		Av. No. per
Stake No. ___		shell
Sample No. ___		Av. No per
Stake No. ___		shell
	Total 24	Av. 1.2

Remarks: Counted by R.L. HOFFMAN (1-10) J.D. Andrews Date JULY 16, 1948 16 Jul 48

											Av
Barnacles	1	9	4	6	4	5	1	3	5	= 38	4
Mouth	2		5	1	1	2		1		= 12	1
Acant	1									= 1	0

These were very clean shells - no dirt, very little fouling. Spat evenly distributed.

WEEKLY OYSTER SPATFALL

Oyster ground WRECK SHOAL, JAMES RIVER Period set JULY 15-22, 1948

Type of shell ELLIOTT'S No. of shells counted 20 (inside only)

Sample No. 306	3-4-1-1-3-3-4-7-0-6 = 32	Av. No. per shell
Stake No. 3	2-0-2-3-4-1-3-0-4-4 = 23	
Sample No.		Av. No. per shell
Stake No.		
Sample No.		Av. No per shell
Stake No.		
	Total 55	Av. ~~2.25~~ 2.75

Remarks: Counted by R. L. HOFFMAN J. D. Andrews Date 23 JULY 1948 28 Jul 48

Barnacles 2 0 3 0 0 0 0 0 0 1 = 3 0
Mend

These shells had some dirt and sand on them but almost no fouling at all. Many of the spat have just set - a few up to 1 mm.

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 15-22 Jul 48

Type of shell Elliotti No. of shells counted 20 (inside only)

Sample No. 307	1-3-6-3-4-3-8-4-3-3 = 38	Av. No. per
Stake No. 3	8-3-2-5-5-2-5-6-11-4 = 51	shell
Sample No.		Av. No. per
Stake No.		shell
Sample No.		Av. No per
Stake No.		shell
	Total 89	Av. 4.45

Remarks: Counted by J. D. Andrews Date 26 Jul 48

Barnacles 1/ 1 1 1 1 2 0 0 = 6 = -1
mosh. 3 3 2 1 2 2 1 = 14 = 1 per shell

Almost no fouling. Mod. amounts of dirt.

WEEKLY OYSTER SPATFALL

Oyster ground WRECK SHOAL, JAMES RIVER Period set JULY 22-29, 1948

Type of shell ELLIOTT'S No. of shells counted 20 (inside only)

Sample No. 308	4-0-3-6-0-4-7-2-2-2 = 30	Av. No. per
Stake No. ____	3-6-7-2-5-5-2-0-8-2 = 40	shell
	70	3.50
Sample No. 309	0-1-5-1-0-4-7-1-6-1 = 26	Av. No. per
Stake No. ____	0-0-4-0-3-3-2-2-4-1 = 19	shell
	45	2.25
Sample No. ____		Av. No per
Stake No. ____		shell
		____
	Total 115	Av. 2.88

Remarks: Counted by R.L. HOFFMAN J.D. Andrews Date JULY 30, 1948 2 Aug 48

(308): Barnacle 4 | 0 | 1 | 0 | | | 0 | | = 5
Memb | 2 | 2 | | 5 | 5 | | 6 | | = 20

None of the membranyoora well developed as in Island Bar + Yorktown. Usually only a zooid or two.

(309): Barnacle 2 | 1 | 0 | | 0 | 2 | 0 | | 0 | 0 | = 5
Memb | | 1 | | | | 3 | | 1 | | = 5
Acart | 1 | | | | | | | | | = 1

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 29 Jul to 5 Aug

Type of shell _____ No. of shells counted _____ (inside only)

Sample No. 311	2-0-1-3-0-2-0-1-0 = 9	Av. No. per shell
Stake No. 3	5-2-2-1-3-0-4-3-1-7 = 28	1.85
	37	
Sample No. 310	1-0-1-0-2-3-0-3-0-2 = 12	Av. No. per shell
Stake No. ____	1-1-3-2-0-0-1-1-1-5 = 15	1.35
	27	
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 64	Av. 1.6

Remarks: ?

(311) Barnacles 0/0/0/0/2/0/2/5/0

Scarcely any fouling - clean - no dirt

Counted by R. L. Hoffman J. D. Andrews Date 12 Aug. 48 9 Aug. 48

WEEKLY OYSTER SPATFALL

Oyster ground WRECK SHOAL Period set AUGUST 5-12, 1948

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 312	7-6-3-11-7-2-4-1-6-2 = 49	Av. No. per
Stake No. ____	3-3-0-1-21-8-2-5-5-5 = 53	shell face
	102	5.10
Sample No. 313	1-2-5-8-4-3-2-1-8-0 = ~~32~~ 34	Av. No. per
Stake No. ____	4-5-3-9-3-3-3-2-3-2 = 37	shell face
	~~69~~ 71	~~3.45~~ 3.55
Sample No. ____		Av. No per
Stake No. ____		shell
		____
	Total 173	Av. ~~4.28~~ 4.32

Remarks: Counted by R. L. HOFFMAN (1-10) J. D. Andrews Date 8-16-48 16 Aug 48

(313) Barnacles 0/0/0/0/3/2/0/1/0/0 = 6 = 1 per shell

(312) 0/1/0/1/0/0/0/0/0 = 2

WEEKLY OYSTER SPATFALL

Oyster ground WRECK SHOALS, JAMES RIVER Period set AUGUST 12-19, 1948

Type of shell _____ No. of shells counted _____ (inside only)

Hoffman Sample No. 314 Andrews Stake No. ____	12-7-14-12-4-6-8-5-7-1 = 76 11-2-7-7-7-22-9-12-6-13 = 96 172	Av. No. per shell 8.60
Hoffman Sample No. 315 Andrews Stake No. ____	+1 +3 +1 +3 10-1-4-13-4-7-0-6-3-3 = 51 12-16-6-2-4-5-13-3-1-2 = 64 115	Av. No. per shell 5.75
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 287	Av. 7.18

Remarks: Counted by R. L. HOFFMAN J. D Andrews Date 8-19-48 16 Sept 48

(315) Barnacles 0/0/0/0/1/6/3/2/2/1 = 15
Meat 3 93 = 5 per shell

(314) Barnacles 0/9/6/0/5/0/1/54/2/1 = 78

WEEKLY OYSTER SPATFALL

Oyster ground WRECK SHOAL Period set AUG. 19-26, 1948

Type of shell Elliotts No. of shells counted _____ (inside only)

check by Andrews → +2 +5 0 +1 +2		
Sample No. 316	22-14-5-9-3-5-3-4-6-5 = 76	Av. No. per
Stake No. ____	13-2-17-6-6-10-4-13-6-14 = 91	shell
	167	8.35
Sample No. 317	36-17-6-24-21-18-12-9-4-16 = 163	Av. No. per
Stake No. ____	5-6-6-17-14-2-6-6-19-10 = 91	shell
	254	12.70
Sample No. ____		Av. No per
Stake No. ____		shell
		____
	Total 421	Av. 10.53

Remarks: Counted by R.L. HOFFMAN 1 Sep 48 J.D. Andrews Date 30 Aug 48

(316) Barnacles	1	2	4	1	8	5	3	3		2	= 47	= 5 (/shell)
Memb.			3						2		= 5	= 0
317 Barnacles	4	0	8	2	1	5	3	0	0	5	= 28	= 3
Memb									1		= 1	

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 26 Aug to 2 Sept 48

Type of shell _____ No. of shells counted 40 (inside only)

Sample No. 318	16-25-43-32-20-9-23-45-8-21 = 242	Av. No. per shellface 20.05
Stake No. 2	10-42-21-11-15-8-19-13-19-3 = 159	
	401	
Sample No. 319	9-8-36-8-30-7-26-15-21-33 = 193	Av. No. per shellface 15.75
Stake No. 3	7-12-16-8-5-10-6-18-11-29 = 122	
	315	
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 716	Av. 17.90

Remarks: Counted by J D Andrews Date 24 Sept 48

Barnacles	6	7	41	27	13	2	10	15	7	23	= 151	= 15 per shell
Memb	1				6	1	12			3	= 23	= 2 per shell

Shell 1 - all these spat have either just set or died without growing.
Very few spat over 500, most around 300 and many just set - no new growth.

Company account _____ Lab. No. _____

Type of shell _____ No. of shells surveyed _____ (Inside only)

Sample No. _____		Av. No. per shell _____
Slide No. _____		
Sample No. _____		Av. No. per shell _____
Slide No. _____		
Sample No. _____		Av. No. per shell _____
Slide No. _____		
	Total	No.

Remarks: _____ Counted by _____ Date _____

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 2-9 Sept 48

Type of shell Elliotts No. of shells counted 40 (inside only)

Sample No. 320	11-4-5-4-14-13-7-6-2-9 = 75	Av. No. per
Stake No. 2	9-5-6-5-15-7-6-15-6-7 = 81	shell
	156	7.80
Sample No. 321	7-4-3-2-10-2-13-3-3-3 = 50	Av. No. per
Stake No. 3	5-3-5-5-3-16-8-10-2-5 = 62	shell
	112	5.60
Sample No.		Av. No per
Stake No.		shell
	Total 268	Av. 6.7

Remarks: Counted by J D Andrews Date 27 Sept 48

321 Barnacles 0/7/1/11/9/0/3/13/0/0 = 44 = 4 per shell
Memb

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 9-16 Sep 48

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. * 322 Stake No. ____	18-18-3-9-1-9-10-5-5-11 = 89 6-12-4-8-16-17-6-9-2-1 = 81 170	Av. No. per shell ____
Sample No. 323 Stake No. ____	8-6-22-10-4-11-26-9-2-8 = 106 29-6-14-19-10-8-17-3-9-11- 124 230	Av. No. per shell 11.5
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 230	Av. 11.5

Remarks: Counted by J.D. Andrews Date 2 Nov 48

322 on 13 Jan 49

Barnacles 1/2/38/16/49/65/273/21/63/5

Meal 2/2

* This sample was misplaced and thought lost. It was discovered after data had been written up so that to include would involve a great deal of work. Hence, this bag No 322 has not been included in tabulations. No great variation is involved anyway JDA

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 16-24 Sept 48

Type of shell _____ No. of shells counted 40 (inside only)

Sample No. 325 Stake No. 3	17-9-10-9-11-25-18-14-17-2 = 132 26-17-11-7-1-6-27-32-22-43 = 192 324	Av. No. per shell 16.2
Sample No. 324 Stake No. 2	2-22-28-6-3-12-5-23-10-15 = 126 15-15-15-6-5-20-15-9-20-21 = 141 267	Av. No. per shell 13.35
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 591	Av. 14.8

Remarks: Counted by J D Andrews Date Sept 48

(325) Barnacles 14/24/1/40/5/36/44/43/34/39 = 280 Large amount of dirt + scum for one week.
Memb. 6 / 1 / 1 / 8 set. Most of spat about 300-400 μ but usually show some growth - a few larger.

(324) Barnacles 17/25/35/61/48/18/15/37/232/17 = 505 Av = 39 per shell
Memb 1 / 1 / 7 / 2 / 1 = 12 = 1 per shell

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 24-30 Sept 48

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 326 Stake No. 2	3-1-1-0-1-2-3-1-2-1 = 15	Av. No. per shell 1.5
Sample No. 327 Stake No. 3	3-2-3-2-5-0-2-1-4-4- = 26	Av. No. per shell 26
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 41	Av. 2.05

Remarks: Counted by J.D. Andrews Date 6 Oct 48

(326) Barnacles 15/27/4/0/1/3/0/1/11/4 = 66 = 7

quite clean shells

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 30 Sept to 7 Oct 48

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 328 Stake No. ____	0-1-0-0-0-0-0-0-0-2 = 3 3	Av. No. per shell .3
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 3	Av. .3

Remarks: Counted by J. D. Andrews Date 29 Dec 48

Barnacles 4/6/58/28/8/19/12/57/89/51 = 332 = 33.2/shell

Operator or owner _____ Field or lease _____

Type of well _____ No. of strings cemented _____ (Single only)

Indicate by a check mark whether the completion is single or dual, or multiple completion, and whether conventional or tubing.

Casing: Size _____		No. ft. per sack
Size _____		
Casing: Size _____		No. ft. per sack
Size _____		
Casing: Size _____		No. ft. per sack
Size _____		
	Total	No.

Remarks: _____ (Signed) _____ Title _____

Weekly Oyster Spatfall on Brown Shoal, 1949

in

The James River Seed Area

Data on 10 to 40 shellfaces

from

Quarter-Bushel Shellbags

6 July to 31 October, 1949

Weekly Spat Strike - Brown Shoal - 1949

Dates Set	Days Set	Number of Spat Counted on Groups of 10 Shells feces	Total of Spat Counted	Number of Spat per Bushel (600 Shells per Bushel)	Average Number of Spat per Shell	Spat per Day per Shell
6 Jul-12 Jul	6	29	29	3,480	5.80	.97
12 Jul-19 Jul	7	58	58	6,960	11.60	1.66
19 Jul-26 Jul	7	3	3	360	0.60	0.01
26 Jul- 2 Aug	7	59,89	148	8,880	14.80	2.11
2 Aug- 9 Aug	7	136,162	298	17,880	29.80	4.26
9 Aug-16 Aug	7	329,346,302	977	39,080	65.13	9.30
16 Aug-23 Aug	7	215,277,424,258	1,174	35,220	58.70	8.38
23 Aug-30 Aug	7	269,237,280,375	1,161	34,830	58.05	8.29
30 Aug- 6 Sep	7	173,182,89,116	560	16,800	28.00	4.00
6 Sep-14 Sep	8	184,172,68,67	491	14,730	24.55	3.07
14 Sep-21 Sep	7	40,40,50,54	184	5,520	9.20	1.31
21 Sep-28 Sep	7	15,12,7,9	43	1,290	2.15	0.31
28 Sep- 5 Oct	7	11,8	19	1,140	1.90	0.27
5 Oct-31 Oct	-	3	3	360	0.60	0.01

Spat Strike - Brown Shoal - 1949

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

- - - - - -

Week Beginning	Number of Setting Days	Spat Counted	Spat per Bushel	Spat per Shell	Percentage of Total Set
6 Jul	91	5,148	186,530	310.88	100.00
12 Jul	85	5,119	183,050	305.08	98.1
19 Jul	78	5,061	176,090	293.48	94.4
26 Jul	71	5,058	175,730	292.88	94.2
2 Aug	64	4,910	166,850	278.08	89.5
9 Aug	57	4,612	148,970	248.28	79.9
16 Aug	50	3,635	109,890	183.15	58.9
23 Aug	43	2,461	74,670	124.45	40.0
30 Aug	36	1,300	39,840	66.40	21.4
6 Sep	29	740	23,040	38.40	12.4
14 Sep	21	249	7,310	13.85	3.9
21 Sep	14	65	2,790	4.65	1.5
28 Sep	7	21	1,500	2.50	0.8
5 Oct	-	3	360	0.60	0.0

Weekly Spat Strike - Wreck Shoal - 1949

(Shellbags)

Dates Set	Days Set	Number of Spat Counted on Groups of 10 Shellsfaces	Total of Spat Counted	Number of Spat per Bushel (600 Shells per Bushel)	Average Number of Spat per Shell	Spat per Day per Shell
14 Jun-23 Jun	9	0	0	0	0.0	0.0
23 Jun-28 Jun	5	0	0	0	0.0	0.0
28 Jun- 6 Jul	8	1	1	120	0.2	0.03
6 Jul-12 Jul	6	15	15	1,800	3.00	0.50
12 Jul-19 Jul	7	22	22	2,640	4.40	0.60
19 Jul-26 Jul	7	8	8	960	1.60	0.23
26 Jul- 2 Aug	7	38,81	119	7,140	11.90	1.70
2 Aug- 9 Aug	7	198,158	356	21,360	35.60	5.10
9 Aug-16 Aug	7	220,109	329	19,740	32.90	4.70
16 Aug-23 Aug	7	150,170,234,183	737	22,110	36.85	5.30
23 Aug-30 Aug	7	219,161,189,162	731	21,930	36.55	5.20
30 Aug- 6 Sep	7	70,61,90,57	278	8,340	13.90	2.00
6 Sep-14 Sep	8	64,59,79,87	289	8,670	14.45	1.80
14 Sep-21 Sep	7	42,75,80,99	296	8,880	14.80	2.10
21 Sep-28 Sep	7	34,44,53,38	169	5,199	8.67	1.24
28 Sep- 5 Oct	7	2	2	240	0.40	0.06
5 Oct- 2 Nov	-	3	3	360	0.60	0.02

Spat Strike - Wreck Shoal - 1949

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

- - - - - -

Week Beginning	Number of Setting Days	Spat Counted	Spat per Bushel	Spat per Shell	Percentage of Total Set
28 Jun	99	3,355	129,489	215.81	100.0
6 Jul	91	3,354	129,369	215.61	99.9
12 Jul	85	3,339	127,569	212.61	98.5
19 Jul	78	3,317	124,929	208.21	96.5
26 Jul	71	3,309	123,969	206.61	95.7
2 Aug	64	3,190	116,829	194.71	90.2
9 Aug	57	2,834	95,469	159.11	73.7
16 Aug	50	2,505	75,729	126.21	58.5
23 Aug	43	1,768	53,619	89.36	41.4
30 Aug	36	1,037	31,689	52.81	24.5
6 Sep	29	759	23,349	38.91	18.0
14 Sep	21	470	14,679	24.46	11.3
21 Sep	14	174	5,799	9.66	4.5
28 Sep	7	5	600	1.00	0.5
5 Oct	-	3	360	0.60	0.3

Weekly Spat Strike - Deep Water Shoal - 1949

(Shellbags)

Dates Set	Days Set	Number of Spat Counted on Groups of 10 Shelfaces	Total of Spat Counted	Number of Spat per Bushel (600 Shells per Bushel)	Average Number of Spat per Shell	Spat per Day per Shell
14 Jun-23 Jun	9	0	0	0	0.0	0.0
23 Jun-28 Jun	5	0	0	0	0.0	0.0
28 Jun- 6 Jul	8	0	0	0	0.0	0.0
6 Jul-12 Jul	6	0	0	0	0.0	0.0
12 Jul-19 Jul	7	0	0	0	0.0	0.0
19 Jul-26 Jul	7	1	1	120	.20	.03
26 Jul- 2 Aug	7	0	0	0	0.0	0.0
2 Aug- 9 Aug	7	1,2	3	180	0.30	0.04
9 Aug-16 Aug	7	28,24	52	3,120	5.20	0.74
16 Aug-23 Aug	7	4,11,7	22	880	1.47	0.21
23 Aug- 6 Sep	14	6,7,0	13	520	0.87	0.06
6 Sep-14 Sep	8	1,1	2	120	0.20	0.03
14 Sep-21 Sep	7	5	5	600	1.00	0.14
21 Sep-28 Sep	7	0	0	0	0.0	0.0
28 Sep- 5 Oct	7	1	1	120	0.20	0.03

Weekly Spat Strike - Deep Water Shoal - 1949

(Shellbags)

Dates Set	Days Set	Number of Spat Counted on Groups of 10 Shellfaces	Total of Spat Counted	Number of Spat per Bushel (600 Shells per Bushel)	Average Number of Spat per Shell	Spat per Day per Shell
14 Jun-23 Jun	9	0	0	0	0.0	0.0
23 Jun-28 Jun	5	0	0	0	0.0	0.0
28 Jun- 6 Jul	8	0	0	0	0.0	0.0
6 Jul-12 Jul	6	0	0	0	0.0	0.0
12 Jul-19 Jul	7	0	0	0	0.0	0.0
19 Jul-26 Jul	7	1	1	120	.20	.03
26 Jul- 2 Aug	7	0	0	0	0.0	0.0
2 Aug- 9 Aug	7	1,2	3	180	0.30	0.04
9 Aug-16 Aug	7	28,24	52	3,120	5.20	0.74
16 Aug-23 Aug	7	4,11,7	22	880	1.47	0.21
23 Aug- 6 Sep	14	6,7,0	13	520	0.87	0.06
6 Sep-14 Sep	8	1,1	2	120	0.20	0.03
14 Sep-21 Sep	7	5	5	600	1.00	0.14
21 Sep-28 Sep	7	0	0	0	0.0	0.0
28 Sep- 5 Oct	7	1	1	120	0.20	0.03

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 6-12 July 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 204	7-6-4-1-1-1-2-0-1-6 = 29	Av. No. per shell
Stake No. ____	2-	____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 29	Av. 2.9

Remarks: Counted by J. D. Andrews Date 14 Jul 49

															ave. per shell
Barnacle	1	12	5	1	0	0	2	1	5	5	0	0	= 32		3.2
Membranipora	1		3						1	0	0	0	= 5		.5
Acanthodesia		1	1					1		0	0	0	= 3		.3
											10				

8 colony

Barnacle	3
Mem	1
Acan	0

RNS

WEEKLY OYSTER SPATFALL

Oyster ground _____ Period set _____

Type of shell _____ No. of shells counted _____ (Inside only)

Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total	Av.

Remarks: Counted by _____ Date _____

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 12-19 July 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 205 Stake No. 1	11-6-12-9-3-2-3-4-6-2 = 58	Av. No. per shell
Sample No. ____ Stake No. ____		Av. No. per shell
Sample No. ____ Stake No. ____		Av. No per shell
	Total 58	Av. 5.8

Remarks: Counted by J. D Andrews Date 20 Jul 49

											Av. p. shell
Barnacle	1	5	1	1	0	3	2	3	1	0 = 16	1.6
Memb.	0	2	1	2		7	1	0	0	0 = 13	1.3

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal (207) Period set 19 July — July 26 '49

Type of shell Oyster No. of shells counted 10 (inside only)

Sample No. 207 Stake No. ____	0-0-1-0-1-0-1-0-0-0 = 3	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 3	Av. 3

Remarks: Counted by D. Haven Date July 27 49

Barnacles	4	3	2	5	3	2	4	3	3	3	= 32
Mauricastra	1	0	1	1	1	0	0	1	1	0	= 6
Oe anth	0	0	0	1	1	0	0	1	0	0	= 3

mean ==> av. p. shell
acent 3.2
.6
.3

count checked JSK

RDS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoals Period set July 26 - Aug 2

Type of shell oyster No. of shells counted 10 (inside only)

Sample No. 208 Stake No.	1-5-4-8-6-3-4-3-20-5 = 59	Av. No. per shell 5.9
Sample No. Stake No.		Av. No. per shell
Sample No. Stake No.		Av. No per shell
	Total 59	Av. 5.9

Remarks: Counted by D. H Date Aug 11 1949

Burn	4	2	5	2	2	1	4	1	8	0	= 29
Mend	2	2	1	0	4	2	2	1	1	0	= 15
Acut	1	1	2	0	0	0	0	0	0	0	= 4

av p. shell
2.9
1.5
.4

not as much fouling as 209

all dead

RNS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoals Period set July 26 - Aug 2

Type of shell Oyster No. of shells counted 10 (inside only)

Sample No. 209	*13-22'-2-0-2-7-6-8-11-18	Av. No. per shell
Stake No.		8.9
Sample No.		Av. No. per shell
Stake No.		
Sample No.		Av. No per shell
Stake No.		
	Total 89	Av. 8.9

Remarks: Counted by D. H Date Aug 11 1949

Much fouling on shells, impossible to count spat on about 1/5 the area on one shell due to heavy silting.

Barnacles	7	0	7	0	8	0	6	4	2	2	= 36
Mend.	0	0	4	0	1	0	0	1	2	0	= 8
Cent	0	0	0	0	1	0	0	0	0	0	= 1

av. p. shell
3.6
.8
.1

* 3 with top shell gone
' 1 " " " "

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 2-9 Aug 1949

Type of shell _____ No. of shells counted 9 (inside only)

Sample No. 210 Stake No. ____	12-5-6-10-8-37-29-4-7 = 136	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 136	Av. ~~13.6~~ 15.

Remarks: Counted by J.D. Andrews Date 9 Aug 49

av. p. shell 4.

Barnacles 4-9-0-4-1-0-0-17-0-3 = 38

RVS

WEEKLY OYSTER SPAT FALL

Oyster Ground _____ Period set _____

Type of shell _____ No. of shells counted _____ (inside only)

Sample No. ____		Av. No. per shell
Stake No. ____		
Sample No. ____		Av. No. per shell
Stake No. ____		
Sample No. ____		Av. No. per shell
Stake No. ____		
	Total	Av.

Remarks: Counted by _____ Date _____

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 2-9 Aug 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 211 Stake No. ____	12-32-5-33-4-16-7-19-16-18	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 162	Av. 16.2

Remarks: **Counted by** J.D. Andrews **Date** 10 Aug 49

Barnacles 0-4-7-3-3-6-2-2-2-7 = 36 av. p. shell 3.6

Mem. 3 = 3 .3

RUG

WEEKLY OYSTER SPATFALL

Oyster ground _____ Period set _____

Type of shell _____ No. of shells counted ____ (Inside only)

Sample No. ____		Av. No. per shell ____
Stake No. ____		
Sample No. ____		Av. No. per shell ____
Stake No. ____		
Sample No. ____		Av. No per shell ____
Stake No. ____		
	Total	Av.

Remarks: Counted by _____ Date _____

14

Potter

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoals. Period set Aug 9 - Aug 16

Type of shell Oyster No. of shells counted 10 (inside only)

Sample No. 212 Stake No. ____	26-36-74-17-23-18-24-8-28 75-	Av. No. per shell 32.9
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 329	Av. 32.9

Remarks: Counted by D. H. Date Aug 18 '49

												av. p. shell
Barnacles	0	17	8	1	19	2	4	0	0	0	= 51	5.1
mesh.	0	0	1	0	2	1	0	0	0	0	= 4	.4
Acnt	0	0	0	0	0	0	0	0	0	1	= 1	.1

mu

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 9-16 Aug 1949

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 213	21-30-31-33-19-47-98-16-48-23 =	=346 Av. No. per shell
Stake No. ____	22-53-20-48-18-15-27-28-47-24	=302
Sample No. ____		Av. No. per shell
Stake No. ____		
Sample No. ____		Av. No per shell
Stake No. ____		
	Total 648	Av. 32.4

Remarks: Counted by J D. Andrews Date 18 Aug 48

Barnacles 16 - 11 - 1 - 3 - 8 - 42 - 3 - 6 - 4 = 94 10.4

Mcnh. 4 - 3 - 11 - 0 - 7 - 11 = 36 4.

Anomia 1 - 1 - - = 2 .2

Mostly small spat which have just set - some up almost to 2mm.

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoals Period set Aug 16-23 -1949

Type of shell Oyster No. of shells counted 20 (inside only)

Sample No. 214	10-42-32-20-11-21-30-23-49-39= 277 44-38-13-88-34-25-89-34-28-31 = 424	Av. No. per shell
Stake No.		
Sample No.		Av. No. per shell
Stake No.		
Sample No.		Av. No per shell
Stake No.		
	Total 701	Av. 35.05

Remarks: Counted by D. Haven Date Aug 29

								av. p. shell
Barnacles	3	4	18	25	2	42	= 94	15.6
mercen.	1	0	3	9	1	3	= 17	3.0
Cent	0	0	0	0	0	0	= 0	0

6 shells

RDS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 16-23 Aug 1949

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 215	11-24-18-18-31-18-19-12-8-99=258	Av. No. per
Stake No. ____	12-20-22-30-40-10-14-17-12-38=215	shell
		____
Sample No. ____		Av. No. per
Stake No. ____		shell
		____
Sample No. ____		Av. No per
Stake No. ____		shell
		____
	Total 473	Av. 23.65

Remarks: Counted by J. D. Andrews Date 2 Sept 49

			av. p. shell
Barnacles	30-63-101-36-7-24-79-23-6-6-	= 375	37.5
Mem b.	5-3-3-0-4-7-4-10-3-0	= 39	3.9

RJS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 23-30 Aug 1949

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 217	18-32-28-13-9-22-54-8-59-26=269	Av. No. per
Stake No. ____	10-23-34-20-25-26-12-21-41-25=237	shell
		____
Sample No. ____		Av. No. per
Stake No. ____		shell
		____
Sample No. ____		Av. No per
Stake No. ____		shell
		____
	Total 506	Av. 25.3

Remarks: Counted by J D. Andrews Date 2 Sept 49

Barnacles 11-15-63-54-27-29-32-7-97-7 = ~~342~~

a.p. shell 34.2

Nearly all very small spat - most just set, the rest under 500

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoals Period set 23-30 Aug 49

Type of shell Oyster No. of shells counted 20 (inside only)

Sample No. 218	22-14-21-33-51-22-19-45-28-25	= 280
Stake No.	39-58-25-39-9-23-43-61-34-44	Av. No. per shell = 375
Sample No.		Av. No. per shell
Stake No.		
Sample No.		Av. No per shell
Stake No.		
	Total 655	Av. 32.75

Remarks: Counted by Dexter Haven Date Sept 49

RDS

On this date _____ the undersigned sold to the Va Fisheries Laboratory (Mr. D. Haven) a total of ~~[illegible]~~ 1 lbs fish ~~at~~ ___ per lb., amounting to a total of $/___. This amount will be remitted by commonwealth check.

Signed

John Roe.

~~D. Haven~~

Received of _____ _____ at 6¢ per lb a total of 60 lbs. of fish with a total value of 40 dollars. This amount will be remitted by commonwealth check

Darlin Haven

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 30 Aug to 6 Sep 1949

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 219	4-6-17-13-12-44-19-18-31-9 = 173	Av. No. per shell
Stake No. ____	6-25-6-58-13-5-13-4-27-25 = 182	____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 355	Av. 17.75

Remarks: Counted by J. D. Andrews Date 8 Sept 49

Barnacles 340-234-188-270-112-131-91-71-60-57 = 1554 av. p. shell 77.7

Cooly

WEEKLY OYSTER SPATFALL

Oyster ground Browns Shoals Period set 30 Aug to 6 Sep 49

Type of shell Oyster No. of shells counted 20 (inside only)

Sample No. 220 Stake No.	9-6-15-17-8-7-6-8-6-7 6-13-15-8-11-20-13-6-14-10-	8.9 Av. No. per 116 shell
Sample No. Stake No.		Av. No. per shell
Sample No. Stake No.		Av. No per shell
	Total 205	Av. 10.25

Remarks: Counted by Dexter Haven Date 7 Oct 49

RKS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoals Period set 6-14 Sept 49

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 223	11-21-14-11-36-37-22-16-3-13 = 184	Av. No. per shell
Stake No. ____	31-6-5-16-34-17-3-30-13-17 = 172	____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 356	Av. 17.8

Remarks: Counted by J D Andrews Date 19 Sept 49

Barnacles 117-105-31-99-32-132-201-127-53-117 = 1014 ÷ 10 = 101.4

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal - James R. Period set 6 to 14 Sept 1949

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 225	6-3-5-1-15-15-3-14-6-0 = 68	Av. No. per shell
Stake No. ____	16-10-5-2-3-8-3-2-6-12 = ~~64~~ 67	____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total ~~132~~ 135	Av. ~~6.75~~ 6.75

Remarks: Counted by E. Treaselt & J. D. Andrews Date 11 Oct 49

very dirty shells!

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 14-21 Sept 49

Type of shell _____ No. of shells counted _____ (inside only)

Sample No. 226	3-3-4-0-3-4-3-6-9-5 = 40	Av. No. per
Stake No. ____	1-3-2-13-0-1-6-2-5-7 = 40	shell
		____
Sample No. ____		Av. No. per
Stake No. ____		shell
		____
Sample No. ____		Av. No per
Stake No. ____		shell
		____
	Total 80	Av. 4.0

Remarks: Counted by J D Andrews Date 26 Sept 49

Barnacles 2-18-20-87-16-4-35-42-43-72 = 339 Av. p. shell 33.9

Mus. 1-14-2-1, 9 = 28 2.8

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal, James R Period set 14-21 Sept 49

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 227 Stake No. ____	6-5-3-9-5-3-3-6-6-4-7-1-4-0-6 17-8-7-3-1 = 104 First 10 = 50 Second 10 = 54	Av. No. per shell 5.2
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 104	Av. 5.2

Remarks: Counted by E Tresselt Date 22 Sept 49

Shells dirty

KWS

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal - James Period set 21-28 Sept 49

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 228	5-0-2-1-1-2-0-3-0-1 = 15	Av. No. per shell
Stake No. ____	2-1-1-4-3-0-0-0-1-0 = 12	____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 27	Av. 1.35

Remarks: Counted by E Tressler Date 10/6/49

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal-James R. Period set 21-28 Sept 49

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 230 Stake No. ____	0-0-2-0-1-0-0-1-2-1 = 7 0-0-2-0-0-0-3-0-2-2 = 9 16	Av. No. per shell 0.8
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 16	Av. .8

Remarks: Counted by E. Tressult Date 4 Oct 49

A5

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 28 Sept to 5 Oct

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 233	0-2-0-0-0-1-0-1-3-4 = 11	Av. No. per
Stake No. ____	1-1-1-0-1-0-0-0-0-4 = 8	shell
		____
Sample No. ____		Av. No. per
Stake No. ____		shell
		____
Sample No. ____		Av. No per
Stake No. ____		shell
		____
	Total 19	Av. .95

Remarks: Counted by J. D. Andrews Date 6 Oct 49

Barnacles 0-0-0-0-7-188-2-0-0-1 = 198

av. p. shell 19.8

R15

WEEKLY OYSTER SPATFALL

Oyster ground Brown Shoal Period set 5 to 31 Oct 49

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 234 Stake No. 1	0-0-1-0-0-1-0-1-0-0=3	Av. No. per shell
Sample No. ____ Stake No. ____		Av. No. per shell
Sample No. ____ Stake No. ____		Av. No per shell
	Total 3	Av. .3

Remarks: Counted by E Thesset Date Jan 26, 50

	1	2	3	4	5	6	7	8	9	10		av. per shell
Barnacles	59	4	94	75	4	19	5	64	15	43	= 382	38.2
Membran-	0	0	0	2	1	1	1	0	0	0	= 5	.05

Weekly Oyster Spatfall on Wreck Shoal, 1949

in

The James River Seed Area

Data on 10 to 40 Shellfaces

from

Two Quarter-Bushel Shellbags

14 June to 2 November, 1949

Jay D. Andrews

VIMS

1949 Weekly Shellbag Spat Counts (shellfaces of clean shells each week)

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 14-23 June 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 1 Stake No. ____	0-0-0-0-0-0-0-0-0-0	Av. No. per shell 0
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 0	Av. 0

Remarks: Counted by J. D. Andrews Date 25 Jun 1949

Membranipora	15-24-2-1-12-30-19-13-3-8	= 127	av. per shell 12.7
Barnacles	-2 -2-1	= 5	.5

water very fresh - only Membranipora colonies with two units counted - most of the above had 2-4 units.

BNS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 23-28 June 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 2 Stake No. 4	0-0-0-0-0-0-0-0-0-0	Av. No. per shell 0
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 0	Av. 0

Remarks: Counted by J D. Andrews Date 30 Jun 1949

Barnacles 1-0-0-0-1-0-0-0-0-0 = 2

av. p. shell .2

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 28 June to 6 July 49

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 3 Stake No. ____	0-0-0-1-0-0-0-0-0-0 = 1	Av. No. per shell .10
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 1	Av. .10

Remarks: Counted by J. D. Andrews Date 8 July 49

Barnacles 0-0-0-3-0-0-1-0-2-0 = 6
Mem. 0-1-3-0 -1-1-1 = 7

Av. p. shell
.6
.7

RJ

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 6-12 July 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 4 Stake No. ____	3-1-0-2-1-2-3-2-1-0 = 15	Av. No. per shell 1.5
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 15	Av. 1.5

Remarks: Counted by Dexter Haven Date 15 Jul 49

Barnic.	3	3	5	5	0	3	5	1	1	0	= 26	av. p. shell 2.6
Acanth.	0	0	0	0	0	0	0	0		0	= 0	0
Membrin	0	0	4	0	1	1	1	1	0	0	= 8	.8

Checked by JDA

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 12-19 July 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 5 Stake No. ____	2-4-0-1-0-4-1-3-5-2 = 22	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 22	Av. 2.2

Remarks: Counted by J D Andrews Date 20 Jul 49

av. p. shell .3

Barnacles 1/1/0/0/1/0/0/0/0/0 = 3

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set July 19 July 26 '49

Type of shell Oyster Shell No. of shells counted 10 (inside only)

Sample No. 7	0-4-1-2-1-0-0-0-0-0 = 8	Av. No. per shell
Stake No.		
Sample No.		Av. No. per shell
Stake No.		
Sample No.		Av. No per shell
Stake No.		
	Total 8	Av. .8

Remarks: Counted by D. Haven Date July 27 1949

												av. per shell
Bar	0	1	5	1	0	2	0	0	0	0	= 9	.9
Mont.	1	0	1	0	0	0	1	0	0	0	= 3	.3
Accot	0	0	1	2	0	0	0	0	0	0	= 3	.3

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoals Period set July 26 - Aug 2

Type of shell Oyster No. of shells counted 10 (inside only)

Sample No. 8 Stake No.	4-6*-4-4-2-2-6-7-1-2=38	Av. No. per shell 3.8
Sample No. Stake No.		Av. No. per shell
Sample No. Stake No.		Av. No per shell
	Total 38	Av. 3.8

Remarks: Counted by D. H Date Aug 12 1949

Barnes	0	3	0	1	4	0	5	5	0	0	=18
Merck	0	0	4	7	6	2	4	3	2	0	=28
Ocean	0	1	0	0	0	0	0	2	0	1	=4

av. per shell
1.8
2.8
.4

* 2 fell off.

RJS

Sample No.		Av. No. per shell
Stake No.		
Sample No.		Av. No. per shell
Stake No.		
Sample No.		Av. No per shell
Stake No.		
	Total	Av.

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoals Period set July 26 - Aug 2

Type of shell Oyster No. of shells counted 10 (inside only)

Sample No. 9 Stake No.	18-4-9-4-13-11-7-4-4-7=81	81 Av. No. per shell ~~6.4~~
Sample No. Stake No.		Av. No. per shell
Sample No. Stake No.		Av. No per shell
	Total 81	Av. 8.1

Remarks: Counted by D. H Date Aug 12 1949

Bancks	3	9	6	8	5	3	17	4	6	3	=64
Mere	2	7	5	8	3	1	4	0	1	6	=37
Cent	1	0	0	0	1	1	0	0	1	1	=5

3 5

av. per shell
6.4
3.7
.5

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 2-9 Aug 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 10 Stake No. ____	6-25-15-26-36-19-8-36-5-22	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 198	Av. 19.8

Remarks: Counted by J D Andrews Date 10 Aug 49

Barnacles 4-160-0-8-53-4-44-2-13-5 = 293 29.3 = } av. per shell

Memb 4-1-6-1-3-0-4-1-12-5 = 37 3.7 = }

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set Aug 2 — Aug 9 '49

Type of shell Oyster No. of shells counted 10 (inside only)

Sample No. 11 Stake No.	10-10-9-25-21-9-11-24-2-37	Av. No. per shell 15.8
Sample No. Stake No.		Av. No. per shell
Sample No. Stake No.		Av. No per shell
	Total 158	Av. 15.8

Remarks: 9.5 Counted by D. H Date Aug 10 '49

												av. per shell
Barnacles	0	33	2	8	0	6	0	12	7	18	= 86	8.6
mesh.	0	3	11	2	2	3	1	13	0	1	= 36	3.6
acut	0	0	0	0	0	0	0	0	0	0	0	0

½ 3½

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Wrech Shoal Period set 9-16 Aug 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 12	Dead 17-6-29-7-9-13-23-15-32-23 Live 16-6-0-0-6-3-3-4-3-5	174 46 Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 220	Av. 22.0

Remarks: Counted by J D. Andrews Date 17 Aug 49

RNS

WEEKLY OYSTER SPATFALL Counted under water

Oyster ground Wreck Shoal Period set 9-16 Aug 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 13	D. 6-15-12-15-13-8-8-7-9-4 L. 2-1-1-0-4-0-0-1-0-3	99 12 Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 109	Av. 10.9

Remarks: Counted by J. D. Andrews Date 18 Aug 49

These shells were counted under water to better distinguish between live and dead spat. Counted approximately 24 hrs. after taken from the water + kept in tub of running salt water after transporting from river on a very cloudy day.

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 16-23 Aug 1949

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 14	23-13-10-7-13-15-6-29-15-19 = 150	Av. No. per
Stake No. ____	28-16-11-19-5-6-15-23-13-34 = 170	shell
		____
Sample No. ____		Av. No. per
Stake No. ____		shell
		____
Sample No. ____		Av. No per
Stake No. ____		shell
		____
	Total 320	Av. 16.0

Remarks: Counted by J. D. Andrews Date 2 Sept 1949

Barnacles 0-0-1-1-2-1-2-0-7-4 = 18 = 1.8 Av per shell

RNS

25

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoals Period set August 16-23 '49

Type of shell Oyster No. of shells counted 20 (inside only)

Sample No. 15	29-27-23-11-7-10-62-20-36-9 = 234	Av. No. per shell
Stake No. ____	14-16-32-11-30-11-15-19-12-23 = 183	____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 417	Av. 20.85

Remarks: Counted by D. Haven Date Aug 31 1949

CA Biol Lab Ft Sc

RNS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoals Period set 23-30 Aug 1949

Type of shell Oyster Shell No. of shells counted 20 (inside only)

Sample No. 18 Stake No. ____	24-52-25-22-6-15-6-21- 24-24-18-21-20-25-19- 9-14-5-16-14-	Av. No. per shell ____
Sample No. ____ Stake No. ____	First 10 = 219 Second 10 = 161	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 380	Av. 19.0

Remarks: Counted by D. Horen Date Sept 2 1949

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Wrech Shoal Period set 23-30 Aug 1949

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 19	10-14-17-13-21-22-13-33-29-17-	189 Av. No. per shell
Stake No. ____	16-13-14-17-9-11-7-18-41-16 = 162	____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 351	Av. 17.55

Remarks: Counted by J. D. Andrews Date 1 Sept 49

Barnacles 164-32-40-34-15-63-19-13-11-11 = 402 av. per shell 40.2

Mesh 0-3-0 -1- = 4 .4

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 30 Aug - 6 Sept 1949

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 20	5-5-1-12-10-11-8-9-5-4 = 70	Av. No. per shell
Stake No. ____	4-6-2-3-9-4-13-5-13-2 = 61	____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 131	Av. 6.55

Remarks: Counted by J.D. Andrews Date 8 Sept 49

Barnacles 10-35-73-8-0-101-36-3-11-0 = 277

av. p. shell 27.7

RVS

Yorath Re

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 30 Aug - 6 Sept

Type of shell Oyster Shell No. of shells counted 20 (inside only)

Sample No. 21 Stake No. ____	19-7-9-12-0-13-11-3-15-1=90 3-10-11-5-1-2-6-6-6-7 =57	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 147	Av. 7.35

Remarks: Counted by Dexter Haven Date 8 Oct 49

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal - James Period set 6-14 Sept 49

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 22	10-2-8-4-13-9-5-19-2-7 = 79	Av. No. per shell
Stake No. ____	15-7-9-3-3-4-9-11-12-14 = 87	____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 166	Av. 83

Remarks: Counted by E Tresselt Date 11/Oct/49

RNS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 6-14 Sept 49

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 23 Stake No. ____	9-10-16-1-7-3-11-7-0-2 = 64 4-5-1-5-5-16-7-4-9-3 = 59	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 123	Av. 6.15

Remarks: Counted by J D Andrews Date 20 Sept 49

Barnacles 5-7-52-3-1-17-30-24-7-0 = 146

tw. p. shell 14.6

RMS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal, James R. Period set 14-21 Sept 49

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 24 Stake No. ____	9-0-1-7-8-0-3-3-7-4 | 5-6-5-5-17 17-6-3-7-4 = 117 first 10 = 42 Dead 10 75	Av. No. per shell 5.8
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 117	Av. 5.8

Remarks: Counted by E Trussell Date 22 Sept 49

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 14-21 Sept 49

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 25	6-6-7-11-9-10-1-7-18-5 = 80	Av. No. per
Stake No. ____	6-6-12-6-7-2-32-6-18-4 = 99	shell
		____
Sample No. ____		Av. No. per
Stake No. ____		shell
		____
Sample No. ____		Av. No per
Stake No. ____		shell
		____
	Total 179	Av. 9.0

Remarks: Counted by J D Andrews Date 24 Sept 49

Barnacles 20-160-49-77-120-188-59-66-41-66 = 846

av. p. shell 84.6

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal - James? Period set 21-28 Sept 1949

Type of shell Wreck Sh No. of shells counted 19 (inside only)

Sample No. 26	1-5-1-3-2-4-8-3-3-4=34 22-1-6-2-3-1-4-4-1 = 44 (9 shells)	Av. No. per shell 3.9
Stake No.		
Sample No.		Av. No. per shell
Stake No.		
Sample No.		Av. No per shell
Stake No.		
	Total 78	Av. 4.1

Remarks: Counted by Tressell Date 10/4/49

3.4
20 | 78
61
18

RTS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 21-28 Sept 1949

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 27	7-5-5-4-5-7-5-5-8-2 = 53	Av. No. per
Stake No. ____	12-4-3-5-3-3-0-2-6-0 = 38	shell
		____
Sample No. ____		Av. No. per
Stake No. ____		shell
		____
Sample No. ____		Av. No per
Stake No. ____		shell
		____
	Total 91	Av. 4.55

Remarks: Counted by J.D. Andrews Date 4 Oct 1949

Barnacles 8-9-26-6-6-52-1-8-2-48 = 166 16.6 av. p. shell

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 28 Sept - 5 Oct 49

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 28 Stake No. ____	0-0-1-0-0-0-1-0-0-0 = 2	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 2	Av. .2

Remarks: Counted by J. D. Andrews Date 6 Oct 49

Barnacles 0-0-16-12-17-0-1-0-1-9 = 56

av. p. shell 5.6

RNS

WEEKLY OYSTER SPATFALL

Oyster ground Wreck Shoal Period set 5 Oct to 2 Nov 49

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 29 Stake No. ____	0-0-2-0-0-0-0-0-0-1 = 3	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 3	Av. .3

Remarks: Counted by E Thurnert Date Jan 26, 50

	1	2	3	4	5	6	7	8	9	10		av. per shell
Barnacles	14	70	81	31	52	82	19	38	326	335	= 1048	= 104.8
"membranipora	0	3	3	4	4	5	0	1	0	1	= 21	= 2.1

RTS

Weekly Oyster Spatfall on Deep Water Shoal, 1949

in

The James River Seed Area

Data on 10 to 20 Shellfaces

from

Quarter-Bushel Shellbags

14 June to 2 November, 1949

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoals Period set 14 - 23 June 1949

Type of shell Mills shell pile No. of shells counted 10 (inside only)

Sample No. 101 Stake No.	0-0-0-0-0-0-0-0-0-0	Av. No. per shell 0
Sample No. Stake No.		Av. No. per shell
Sample No. Stake No.		Av. No per shell
	Total	Av.

Remarks: Counted by J. D. Andrews Date 24 Jun 49

av p. shell .3

Barnacles 0-0-0-0-0-1-0-2-0-0 = 3

Outside of 3 barnacles no fouling organisms were seen except a few spots of the tiny Bryozoa-like colonies. No membranipora, Acanthodesia etc. Shells clean - no mud + unchanged from date of planting.

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal Period set 23 - 28 June 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 102 Stake No. 3	0-0-0-0-0-0-0-0-0-0	Av. No. per shell 0
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total	Av.

Remarks: Counted by J. D. Andrews Date 1 Jul 49

No fouling organisms

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal Period set 28 June to 6 July 49

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 103 Stake No. ____	0-0-0-0-0-0-0-0-0-0	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 0	Av. 0

Remarks: Counted by J D Andrews Date 8 Jul 49

Barnacles 0-0-0-0-0-0-1-0-0-3 = 4 .4

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal Period set 6-12 July 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 104 Stake No. 101	0-0-0-0-0-0-0-0-0-0 = 0	Av. No. per shell _____
Sample No. ____ Stake No. ____		Av. No. per shell _____
Sample No. ____ Stake No. ____		Av. No per shell _____
	Total	Av. 0

Remarks: Counted by J. D. Andrews Date 21 Jul 49

Barnacles 1/2/0/0/2/0/0/0/0/0 = 5

av. p. shell .5

RVG

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal Period set 12-19 July 1949

Type of shell _____ No. of shells counted _____ (inside only)

Sample No. 105 Stake No. ____	0-0-0-0-0-0-0-0-0-0=0	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 0	Av. 0

Remarks: Counted by J. D. Andrews Date 21 Jul 49

Barnacles 0/0/1/0/0/1/0/0/0/0 = 2

av. p. shell 1.2

Outside of 2 good-sized live barnacles, no sessile animals were found. No trace of Bryozoa, oyster spat. The shells were clean & white just like they were planted. These two barnacles were able to set & live in fresh water.

RWJ

WEEKLY OYSTER SPATFALL

Oyster ground _____ Period set _____

Type of shell _____ No. of shells counted _____ (inside only)

Sample No. ____		Av. No. per shell ____
Stake No. ____		
Sample No. ____		Av. No. per shell ____
Stake No. ____		
Sample No. ____		Av. No per shell ____
Stake No. ____		
	Total	Av.

Remarks: Counted by _____ Date _____

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal Period set July 19 — July 26 '49

Type of shell Oyster Shells No. of shells counted 10 (inside only)

Sample No. 106	0-0-0-0-0-0-0-1-0-0 = 1	Av. No. per shell
Stake No.		
Sample No.		Av. No. per shell
Stake No.		
Sample No.		Av. No per shell
Stake No.		
	Total /	Av. /

Remarks: Shells very free from fouling

Counted by D. Haven Date July 28 1949

av. p. shell .2

Barnacles	0	0	0	1	0	0	0	0	1	0	= 2
mach.	0	0	0	0	0	0	0	0	0	0	0
acent.	0	0	0	0	0	0	0	0	0	0	0

RV3

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shals Period set July 26 – Aug 2

Type of shell oyster No. of shells counted 10 (inside only)

Sample No. 107 Stake No.	0-0-0-0-0-0-0-0-0-0	Av. No. per shell 0
Sample No. Stake No.		Av. No. per shell
Sample No. Stake No.		Av. No per shell
	Total 0	Av. 0

Remarks: Counted by D. H Date Aug 11 '49

av. p. shell 1.2

Barnacles	1	7	0	0	0	0	0	2	2	0	= 12
Membran.	0	0	0	0	0	0	0	0	0	0	0
Acanth	0	0	0	0	0	0	0	0	0	0	0

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoals Period set 2-9 Aug 49

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 108 Stake No. ____	0-0-0-0-1*-0-0-0-0-0 = 1	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 1	Av. 1

Remarks: Counted by J. D. Andrews Date 10 Aug 49

Barnacles 21-5-9-11-1-45-2-20-0-4 = 118 Av. p. shell 11.8

Mussels 5 = 5 .5

* This was a freshly set + clean cut spat of about 400μ

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoals Period set Aug 2 – Aug 9 49

Type of shell Oyster No. of shells counted 10 (inside only)

Sample No. 109 Stake No. ____	0-1-0-0-0-0-1-0-0-0	Av. No. per shell .2
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 2	Av. .2

Remarks: Counted by D. H. Date Aug 11 49

av. p. shell 34.2

Barnacles	7	49	48	97	16	11	71	12	15	16	= 342
membran	0	0	0	0	0	0	0	0	0	0	= 0
Cement	0	0	0	0	0	0	0	0	0	0	= 0

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal Period set 9-16 Aug 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 110 Stake No. ____	0-2-9-3-1-3-2-3-4-1 = 28	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 28	Av. 2,8

Remarks: Counted by J. D. Andrews Date 18 Aug 49

Barnacles 0-8-3-0-40-2-1-5-1-3 = 63

av. p. shell 6.3

RDS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal Period set 9-16 Aug 1949

Type of shell Oyster No. of shells counted 10 (inside only)

Sample No. 111 Stake No.	2-1-0-1-1-1-5-5-1-7 =24	Av. No. per shell 2.4
Sample No. Stake No.		Av. No. per shell —
Sample No. Stake No.		Av. No per shell —
	Total 24	Av. 2.4

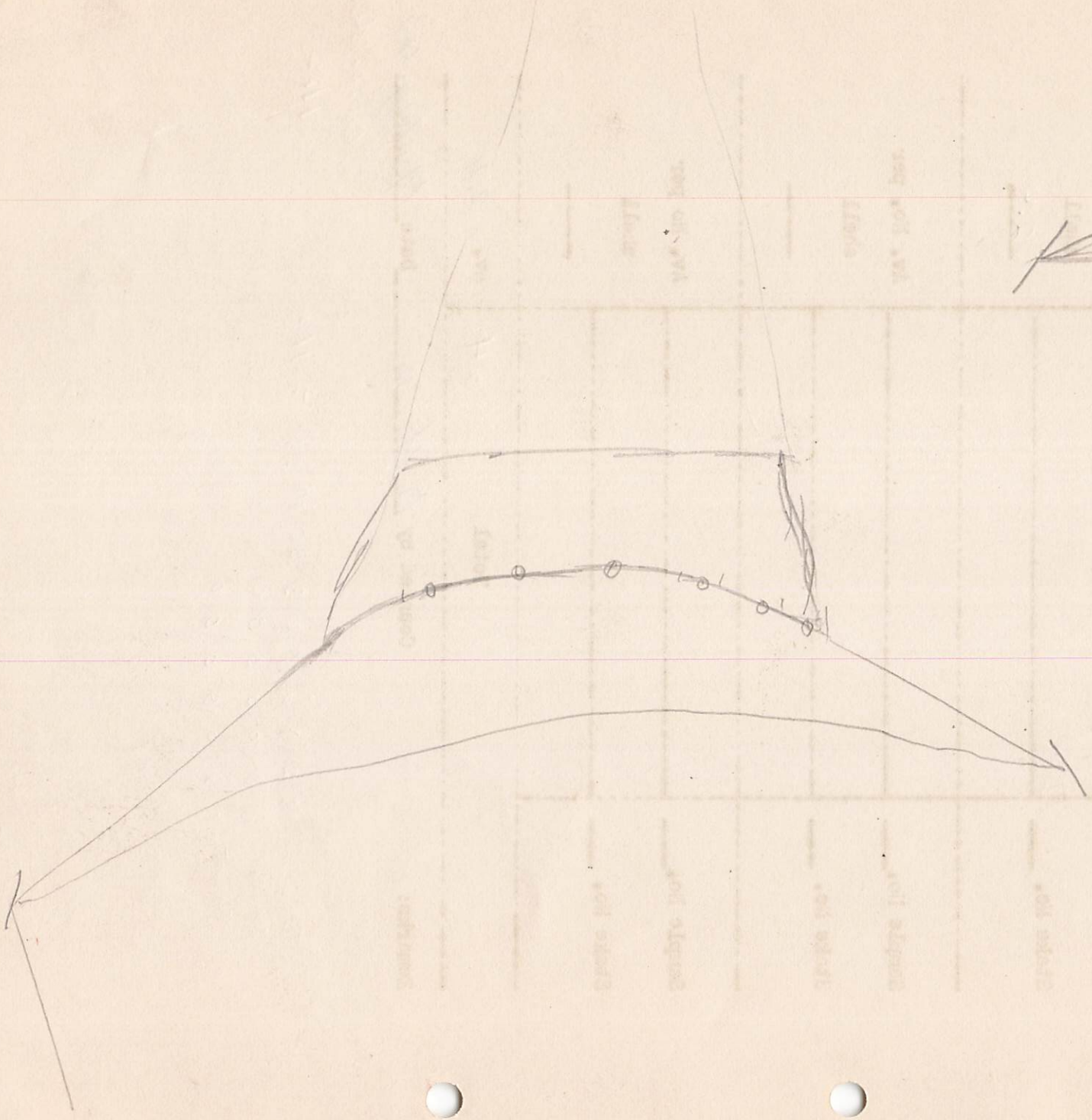
Remarks: Counted by D. Haven Date 19 Aug. 49

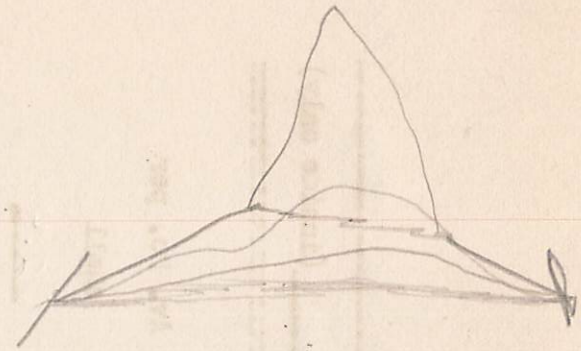
av. p. shell 11.2

Bar. Co.	18	2	1	9	7	2	3	30	17	23	= 112
Mend	0	0	0	0	0	0	0	0	0	0	= 0
Acent.	0	0	0	0	0	0	0	0	0	0	= 0

2.46

RVS





WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoals Period set 16-23 Aug 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 112 Stake No. ____	0-0-0-0-2-0-0-1-0-1 = 4	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 4	Av. .4

Remarks: Counted by J D. Andrews Date 7 Sept 49

Barnacles 9-3-7-9-7-11-0-1-1-2-44 = 94

av. p. shell 9.4

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoals Period set Aug 16-23 '49

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 113	2-7-0-0-0-0-1-1-0-0- = 11	Av. No. per shell
Stake No. ____	2-2-0-0-0-0-0-3-0-0 = 7	____
Sample No. ____		Av. No. per shell
Stake No. ____		____
Sample No. ____		Av. No per shell
Stake No. ____		____
	Total 18	Av. .9

Remarks: Counted by D H Date Aug 29

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal, James R. Period set 23 Aug - 6 Sept 49

Type of shell _____ No. of shells counted 20 (inside only)

Sample No. 115 Stake No. ____	0-0-1-1-0-1-0-3-0-0-2-2-0-1-0 -0-2-0-0-0 first 10 = 6 second 10 = 7	Av. No. per shell 0.65
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 13	Av. .65

Remarks: Counted by E Tresselt Date 10/4/49

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoals Period set 23 Aug to 6 Sep 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 116 Stake No. ____	0-0-0-0-0-0-0-0-0-0	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 0	Av. 0

Remarks: Counted by J.D. Andrews Date 7 Sept 49

Barnacles 5-16-2-6-11-5-18-6-1-8 = 78

av. p. shell 7.8

RDS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoals Period set 6-14 Sept 49

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 117 Stake No. ____	0-0-0-0-0-0-0-0-1-0 = 1	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 1	Av. .1

Remarks: Counted by J.D. Andrews Date 11 Oct 49

Barnacles 1-3-16-13-9-7-14-4-3-2 = 72

av. p. shell 7.2

RWS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal Period set 6-14 Sept 49

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 118 Stake No. ____	0-1-0-0-0-0-0-0-0-0 = 1	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 1	Av. 1

Remarks: Counted by J D Andrews Date 20 Sep 49

Barnacles 12-3-1-3-3-17-1-10-1-4 = 55

av. p. shell 5.5

RVS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal Period set 14-21 Sept 49

Type of shell _____ No. of shells counted _____ (inside only)

Sample No. 119 Stake No. ____	1-1-3-0-0-0-0-0-0-0 = 5	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 5	Av. .5

Remarks: Counted by JD Andrews Date 23 Sept 49

Barnacles 20-28-102-3-23-35-9-7-23-22 = 272

av. p. shell 27.2

RDS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoals Period set 21-28 Sept 1949

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 120 Stake No. ____	0-0-0-0-0-0-0-0-0-0	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 0	Av. 0

Remarks: Counted by J. D. Andrews Date 11 Oct 49

Barnacles 16, -4-3-3-4-1-18-3-4-0 = 56

av. p. shell 5.6

PDS

WEEKLY OYSTER SPATFALL

Oyster ground Deep Water Shoal Period set 28 Sept - 5 Oct 49

Type of shell _____ No. of shells counted 10 (inside only)

Sample No. 121 Stake No. ____	0-0-0-0-0-1-0-0-0-0 = 1	Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total 1	Av. .1

Remarks: Counted by J. D. Andrews Date 6 Oct 49

Barnacle 0-45-17-173-30-1-40-11-17-24 = 358

av. p. shell 35.8

RWS

WEEKLY OYSTER SPATFALL

Oyster ground DEEP WATER SHOALS Period set 5 Oct to 2 Nov 1949

Type of shell _____ No. of shells counted 10 (inside only)

Last period set-bag not marked

Sample No. 122 Stake No. ____	0-0-0-0-0-0-0-0-0-0	Av. No. per shell 0
Sample No. ____ Stake No. ____		Av. No. per shell ____
Sample No. ____ Stake No. ____		Av. No per shell ____
	Total	Av.

Remarks: Counted by E F Tressett Date 3/11/50

	1	2	3	4	5	6	7	8	9	10	TOTAL	av./shell
Barnacles	116	103	102	90	103	79	41	45	103	36	818	81.8
Membranipora	1	8	0	1	0	15	6	8	26	2	67	6.7