# Oyster/Oyster Reef Indicator Quantile Report SEACAR Analysis

## Last compiled on 08 February, 2024

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#### Overview

#### Purpose

The purpose of the indicator quantiles is to flag records that are "unusual" relative to all of the data in the DDI for a given indicator in order to facilitate QA/QC. They are not used to filter any of the data for SEACAR analyses, and the presence of a LowerQuantile or UpperQuantile flag on a DDI record alone does not necessarily indicate there is any issue with the record (neither does the absence of a LowerQuantile or UpperQuantile flag necessarily mean that a data record is correct).

#### Relevant file locations

Current values can be found in the "LowQuantile" and "HighQuantile" columns of the "Ref\_Parameters" worksheet.

The R script described below and the output file can be found in the *FloridaSEACAR IndicatorQuantiles* repository on GitHub:

 $\bullet \ \ https://github.com/FloridaSEACAR/IndicatorQuantiles$ 

#### Process steps

#### $IQ\_Report\_Render.R \ \& \ IQ\_Report.Rmd$

- 1. The *IQ\_Report\_Render.R* script lists all files in a given directory and filters it to a list of DDI exports to evaluate considering a list of parameters to skip (user-defined).
- 2. User sets the desired upper and lower quantile thresholds, as well as a number of standard deviations away from the mean to use for the calculations.
- 3. User sets the string value(s) in the DDI exports that should be considered as NA values.
- 4. The remainder of the script loops through the file list, returning the values listed below and binding them together by row into a single Excel spreadsheet that is saved to the User's working directory.
- 5. For each habitat included in the User's working directory a PDF report will be created in the "output" folder using  $IQ\_Report.Rmd$ , which provides an overview of questionable / flagged values.
- 6. In addition to the PDF reports, each habitat will provide a .txt data output file in the "output/data" folder containing questionable values.

## **Summary**

The following quantile thresholds are used for flagging "questionable" values:

Lower quantile: 0.001Upper quantile: 0.999

The following parameters are being excluded from this analysis:

• Standard Length

#### Included Indicators and Parameters and the files used in this analysis:

 $All\_Oyster\_Parameters$ -2024-Jan-10.txt

Indicator: Density

- Density
- Number of Oysters Counted Total (.0625)
- Number of Oysters Counted Total (.2500)
- Number of Oysters Counted Total (.1000)
- Number of Oysters Counted Total (1.0000)
- Number of Oysters Counted Total (NULL)
- Number of Oysters Counted Live (.2500)
- Number of Oysters Counted Live (.0625)
- Number of Oysters Counted Live (1.0000)
- Number of Oysters Counted Live (.1000)
- Number of Oysters Counted Live (NULL)
- Number of Oysters Counted Dead (.2500)
- Number of Oysters Counted Dead (.0625)
- Number of Oysters Counted Dead (.1000)
- Number of Oysters Counted Dead (1.0000)
- Number of Oysters Counted Dead (NULL)
- Reef Height

Indicator: Percent Live

• Percent Live

Indicator: Size Class

- Shell Height (.0625)
- Shell Height (.2500)
- Shell Height (.1000)
- Shell Height (1.0000)
- Shell Height (NULL)
- Shell Height (NA)

## **Summary Tables**

q\_low: Value corresponding to the qval\_low quantile for the parameter in the DDI export.

q\_high: Value corresponding to the qval\_high quantile for the parameter in the DDI export.

mean: Mean value for the parameter in the DDI export.

 $n\_tot$ : Total number of records in the DDI export for the parameter.

 $n_q$  low: Number of records in the DDI export that are below q\_low for the parameter.

 $n_q$ high: Number of records in the DDI export that are above q\_high for the parameter.

%\_flagged: Proportion of total records in the DDI export for the parameter which have been flagged as above q\_high, or below q\_low.

Indicator: Density

Table 1: Indicator Quantile Overview

parameter	q_low	q_high	mean	n_tot	n_q_low	n_q_high	%_flagged
Density	1.00	7517.28	548.88	4311	0	5	0.12
Number of Oysters Counted - Dead - (.0625)	1.00	100.00	46.61	1114	0	1	0.09
Number of Oysters Counted - Dead - (.1000)	1.00	69.06	15.66	68	0	1	1.47
Number of Oysters Counted - Dead - (.2500)	1.00	179.84	8.96	1921	0	2	0.10
Number of Oysters Counted - Dead - $(1.0000)$	0.18	174.47	16.87	85	1	1	2.35
Number of Oysters Counted - Dead - (NULL)	1.00	27.90	8.03	35	0	1	2.86
Number of Oysters Counted - Live - (.0625)	1.00	223.86	40.95	1380	0	2	0.14
Number of Oysters Counted - Live - (.1000)	1.00	265.55	58.73	59	0	1	1.69
Number of Oysters Counted - Live - (.2500)	1.00	494.01	39.17	2328	0	3	0.13
Number of Oysters Counted - Live - (1.0000)	1.00	277.01	26.39	117	0	1	0.85
Number of Oysters Counted - Live - (NULL)	1.00	101.15	30.74	425	0	1	0.24
Number of Oysters Counted - Total - (.0625)	1.00	532.26	82.61	1902	0	2	0.11
Number of Oysters Counted - Total - (.1000)	1.00	288.64	62.05	73	0	1	1.37
Number of Oysters Counted - Total - (.2500)	1.00	590.00	43.62	2501	0	3	0.12
Number of Oysters Counted - Total - (1.0000)	1.00	305.72	63.93	70	0	1	1.43
Number of Oysters Counted - Total - (NULL)	2.00	104.64	19.19	37	0	1	2.70
Reef Height	0.13	15687.00	389.79	2066	0	3	0.15

Indicator: Percent Live

Table 2: Indicator Quantile Overview

parameter	q_low	q_high	mean	n_tot	n_q_low	n_q_high	$\%$ _flagged
Percent Live	0.38	100	54	5548	6	0	0.11

Indicator: Size Class

Table 3: Indicator Quantile Overview

parameter	q_low	q_high	mean	n_tot	n_q_low	n_q_high	%_flagged
Shell Height - (.0625) Shell Height - (.1000)	$1.70 \\ 4.06$	126.02 $79.94$	35.96 $23.98$	$78830 \\ 1060$	78 2	79 2	0.20 0.38
Shell Height - (.2500)	2.00	105.00	38.70	425309	224	406	0.15
Shell Height - (1.0000) Shell Height - (NA)	2.00 8.14	$118.40 \\ 125.69$	27.23 38.10	$636 \\ 28895$	0	1	0.16
Shell Height - (NULL)	3.72	151.23	42.47	7449	8	8	0.21

## Low Quantile

#### **Indicator: Density**

There are no Low Quantile Flagged Values for Density

There are no Low Quantile Flagged Values for Number of Oysters Counted - Total - (.0625)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Total - (.2500)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Total - (.1000)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Total - (1.0000)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Total - (NULL)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Live - (.2500)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Live - (.0625)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Live - (1.0000)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Live - (.1000)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Live - (NULL)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Dead - (.2500)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Dead - (.0625)

There are no Low Quantile Flagged Values for Number of Oysters Counted - Dead - (.1000)

#### Number of Oysters Counted - Dead - (1.0000)

Table 4: Flagged Values - Low Indicator Quantile: 0.1756

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
86145	5073	FLAO60-E0805-T3410006-02Q	2014-08-05	0.1

#### Programs containing flagged data:

5073 - Deepwater Horizon NRDA Oyster Technical Working Group Oyster Quadrat Abundance Sampling

There are no Low Quantile Flagged Values for Number of Oysters Counted - Dead - (NULL) There are no Low Quantile Flagged Values for Reef Height

## **Indicator: Percent Live**

#### Percent Live

Table 5: Flagged Values - Low Indicator Quantile:  $\bf 0.38021$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
162653	972	AL1	2022-06-17	0.34
150135	972	AL1	2022-12-28	0.38
162652	972	AL1	2022-12-28	0.29
3612	972	AL2	2022 - 06 - 17	0.30
784476	972	FRK2	2022-12-28	0.03
189664	972	GOT1	2022-12-28	0.31

#### Programs containing flagged data:

972 - Sarasota County Comprehensive Oyster Monitoring Program

# Indicator: Size Class Shell Height - (.0625)

Table 6: Flagged Values - Low Indicator Quantile: 1.7

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
			<u>-</u>	
176654	4000	BU3	2020-02-14	1.0
176657	4000	BU3	2020-02-14	1.0
184525	4000	BU3	2020-02-14	1.0
191684	4000	BU3	2020-02-14	1.0
64450	4000	GR101	2016-07-08	1.4
64451	4000	GR101	2016-07-08	1.0
65344	4000	GR101	2016-07-08	1.0
66806	4000	GR101	2016-07-08	1.4
66807	4000	GR101	2016-07-08	1.4
74262	4000	GR101	2016-07-08	1.1
637888	4000	GR102	2016-07-27	1.6
658665	4000	GR102	2016-07-27	1.5
592617	4000	GR250	2015-12-10	1.5
581020	4000	GR5A	2016-09-07	1.5
581081	4000	GR5A	2016-09-07	1.4
583117	4000	GR5A	2016-09-07	1.4
584292	4000	GR5A	2016-09-07	1.3
584404	4000	GR5A	2016-09-07	0.7
585154	4000	GR5A	2016-09-07	1.0
624539	4000	GR5A	2016-09-07	1.1
791394	4000	GR5A	2016-09-07	1.5
791601	4000	GR5A	2016-09-07	0.7
791602	4000	GR5A	2016-09-07	1.2
91698	4000	GR65	2016-09-07	1.5
92086	4000	GR65	2016-09-07	1.4
92190	4000	GR65	2016-09-07	1.4
98706	4000	GR65	2016-09-07	1.4
99244	4000	GR65	2016-09-07	1.4
110925	4000	GR65	2016-09-07	1.6
296425	4000	GR65	2016-09-07	1.3
296493	4000	GR65	2016-09-07	1.2
296494	4000	GR65	2016-09-07	1.3
553057	4000	GR73	2016-09-06	1.6
598364	4000	SR41	2016-08-17	1.3
202806	4000	SR70	2016-07-12	1.1
209521	4000	SR70	2016-07-12	1.2
212389	4000	SR70	2016-07-12	1.0
215853	4000	SR70	2016-07-12	1.2
476540	4000	SR70	2016-07-12	1.3
476554	4000	SR70	2016-07-12	1.3
476921	4000	SR70	2016-07-12	0.7
99569	4000	SR71	2016-07-12	1.4
100225	4000	SR71	2016-07-13	1.4
	4000		2016-07-13	
110768		SR71		0.9
112242	4000	SR71	2016-07-13	1.3
112243	4000	SR71	2016-07-13	1.0
112244	4000	SR71	2016-07-13	1.2

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
441883	4000	SR8	2016-12-28	1.6
433888	4000	SR86	2016-08-17	1.3
441624	4000	SR86	2016-08-17	1.3
450475	4000	SR86	2016-08-17	1.6
234673	5017	MLC20	2015-06-10	1.3
661629	5017	MLC21	2015-06-03	1.0
661630	5017	MLC21	2015-06-03	1.0
661682	5017	MLC21	2015-06-03	1.0
666086	5017	MLC21	2015-06-03	1.0
676769	5017	MLC21	2015-06-03	1.0
676770	5017	MLC21	2015-06-03	1.0
676825	5017	MLC21	2015-06-03	1.0
676826	5017	MLC21	2015-06-03	1.0
679249	5017	MLC21	2015-06-03	1.0
679251	5017	MLC21	2015-06-03	1.0
679273	5017	MLC21	2015-06-03	1.0
679274	5017	MLC21	2015-06-03	1.0
685096	5017	MLC21	2015-06-03	1.0
685097	5017	MLC21	2015-06-03	1.0
685148	5017	MLC21	2015-06-03	1.0
730246	5017	MLC21	2015-06-03	1.0
730247	5017	MLC21	2015-06-03	1.0
803731	5017	MLC21	2015-06-03	1.0
803732	5017	MLC21	2015-06-03	1.0
52650	5017	MLC25	2015-06-04	1.5
35483	5017	MLC5	2015-06-10	1.6
35729	5017	MLC5	2015-06-10	1.4
38518	5017	MLC5	2015-06-10	1.6
184469	5017	MLCBU12	2015-06-03	1.0
191763	5017	MLCBU12	2015-06-03	1.0
202951	5017	MLCBU12	2015-06-03	1.5

## Programs containing flagged data:

- Guana Tolomato Matanzas NERR Oyster monitoring

- Northern Coastal Basins and Mosquito Lagoon Oyster Condition Assessment

## Shell Height - (.2500)

Table 7: Flagged Values - Low Indicator Quantile:  ${\bf 2}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
92778	4012	TB Restore	2016-02-23	1.82
92779	4012	TB Restore	2016-02-23	1.57
92780	4012	TB Restore	2016-02-23	0.86
92781	4012	TB Restore	2016-02-23	0.77
92782	4012	TB Restore	2016-02-23	0.64
94208	4012	TB Restore	2016-02-23	1.54
94209	4012	TB Restore	2016-02-23	1.35
94210	4012	TB Restore	2016-02-23	0.33
94211	4012	TB Restore	2016-02-23	0.16
100789	4012	TB Restore	2016-02-23	1.66
100790	4012	TB Restore	2016-02-23	0.77
100791	4012	TB Restore	2016-02-23	0.38
101482	4012	TB Restore	2016-02-23	0.67
101483	4012	TB Restore	2016-02-23	0.50
103715	4012	TB Restore	2016-02-23	0.64
103716	4012	TB Restore	2016-02-23	0.54
113126	4012	TB Restore	2016-02-23	1.55
113127	4012	TB Restore	2016-02-23	0.88
113128	4012	TB Restore	2016-02-23	0.33
113129	4012	TB Restore	2016-02-23	0.33
113810	4012	TB Restore	2016-02-23	0.50
113811	4012	TB Restore	2016-02-23	0.47
115028	4012	TB Restore	2016-02-23	0.07
115029	4012	TB Restore	2016-02-23	0.05
303588	4012	TB Restore	2016-02-23	0.60
303589	4012	TB Restore	2016-02-23	0.53
552154	4044	NRDA APA-CP-MP2	2019-12-10	1.00
597631	4044	NRDA APA-DB-MP2	2021-09-30	1.00
511440	4044	NRDA APA-DB-MP3	2018-02-13	1.00
24966	4044	NRDA APA-GP-MP1	2017-12-21	1.00
30132	4044	NRDA APA-GP-MP1	2017-12-21	1.00
18558	4044	NRDA APA-GP-MP1	2021-09-21	1.00
18563	4044	NRDA APA-GP-MP1	2021-09-21	1.00
18570	4044	NRDA APA-GP-MP1	2021-09-21	1.00
19443	4044	NRDA APA-GP-MP1	2021-09-21	1.00
22297	4044	<del>_</del>	2021-09-21	1.00
226524	4044	NRDA APA-HB-MP1	2017-11-30	1.00
213281	4044	NRDA APA-HB-MP1	2021-09-22	1.00
214362	4044	NRDA APA-HB-MP1	2021-09-22	1.00
216975	4044	NRDA APA-HB-MP1	2021-09-22	1.00
218621	4044	NRDA APA-HB-MP1	2021-09-22	1.00
480130	4044	NRDA APA-HB-MP1	2021-09-22	1.00
480132	4044	NRDA APA-HB-MP1	2021-09-22	1.00
530239	4044	NRDA APA-HB-MP2	2017-11-30	1.00
71375	4044	NRDA APA-LG-MP1	2021-09-21	1.00
71437	4044	NRDA_APA-LG-MP1	2021-09-21	1.00
87916	4044	NRDA_APA-LG-MP1	2021-09-21	1.00
87978	4044	NRDA_APA-LG-MP1	2021-09-21	1.00

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
5529	4044	NRDA_APA-LG-MP2	2021-09-21	1.00
111942	4044	NRDA_APA-LH-MP2	2017-06-09	1.00
93830	4044	NRDA_APA-LH-MP2	2021-09-22	1.00
115129	4044	NRDA_APA-LH-MP2	2021-09-22	1.00
176500	4044	NRDA_APA-NBM-MP1	2017-06-09	1.00
184969	4044	NRDA_APA-NBM-MP1	2017-06-09	1.00
185616	4044	NRDA_APA-NBM-MP1	2017-06-09	1.00
176630	4044	NRDA_APA-NBM-MP1	2021-12-02	1.00
747735	4044	NRDA_APA-NBM-MP2	2017-06-09	1.00
762074	4044	NRDA_APA-NBM-MP2	2017-06-09	1.00
453792	4044	NRDA_APA-NS-MP1	2021-09-21	1.00
525129	4044	NRDA_APA-RC1-MP1	2017-07-05	1.00
545261	4044	NRDA_APA-RC1-MP1	2017-07-05	1.00
580610	4044	NRDA_APA-RC1-MP1	2017-07-05	1.00
474797	4044	NRDA_APA-RC1-MP2	2017-07-05	1.00
514132	5007	R-CP-MP1	2019-08-16	1.00
437511	5007	R-CP-MP3	2019-08-13	1.00
441530	5007	R-CP-MP3	2019-08-13	1.00
726108	5007	R-CP-MP3	2019-08-13	1.00
730743	5007	R-CPS-MP1	2019-08-23	1.00
421179	5007	R-CPS-MP1	2021-06-17	1.00
421838	5007	R-CPS-MP1	2021-06-17	1.00
422329	5007	R-CPS-MP1	2021-06-17	1.00
423564	5007	R-CPS-MP1	2021-06-17	1.00
425291	5007	R-CPS-MP1	2021-06-17	1.00
425534	5007	R-CPS-MP1	2021-06-17	1.00
438139	5007	R-CPS-MP1	2021-06-17	1.00
441034	5007	R-CPS-MP1	2021-06-17	1.00
441880	5007	R-CPS-MP1	2021-06-17	1.00
446217	5007	R-CPS-MP1	2021-06-17	1.00
450431	5007	R-CPS-MP1	2021-06-17	1.00
460235	5007	R-CPS-MP1	2021-06-17	1.00
460609	5007	R-CPS-MP1	2021-06-17	1.00
463881	5007	R-CPS-MP1	2021-06-17	1.00
728988	5007	R-CPS-MP1	2021-06-17	1.00
737914	5007	R-CPS-MP1	2021-06-17	1.00
87712	5007	R-CPS-MP2	2021-06-17	1.00
93505	5007	R-CPS-MP2	2021-06-17	1.00
93590	5007	R-CPS-MP2	2021-06-17	1.00
101027	5007	R-CPS-MP2	2021-06-17	1.00
274714	5007	R-CPS-MP2	2021-06-17	1.00
103537	5007	R-EH1-MP1	2019-07-31	1.00
103660	5007	R-EH1-MP1	2021-06-24	1.00
104179	5007	R-EH1-MP1	2021-06-24	1.00
105882	5007	R-EH1-MP1	2021-06-24	1.00
107084	5007	R-EH1-MP1	2021-06-24	1.00
107398	5007	R-EH1-MP1	2021-06-24	1.00
109005	5007	R-EH1-MP1	2021-06-24	1.00
109099	5007	R-EH1-MP1	2021-06-24	1.00
109386	5007	R-EH1-MP1	2021-06-24	1.00
121030	5007	R-EH1-MP1	2021-06-24	1.00
123142	5007	R-EH1-MP1	2021-06-24	1.00

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
123143	5007	R-EH1-MP1	2021-06-24	1.00
123316	5007	R-EH1-MP1	2021-06-24	1.00
123385	5007	R-EH1-MP1	2021-06-24	1.00
325755	5007	R-EH1-MP1	2021-06-24	1.00
473115	5007	R-EH1-MP2	2018-09-13	1.00
222526	5007	R-EH1-MP2	2021-06-24	1.00
19654	5007	R-EH1-MP4	2019-07-30	1.00
576440	5007	R-HB1-MP1	2018-06-26	1.00
501344	5007	R-HB1-MP2	2021-01-13	1.00
502456	5007	R-HB1-MP2	2021-01-13	1.00
511966	5007	R-HB1-MP2	2021-01-13	1.00
540593	5007	R-HB1-MP2	2021-01-13	1.00
782242	5007	R-HB1-MP2	2021-01-13	1.00
572865	5007	R-HB2-MP1	2018-06-26	1.00
574657	5007	R-HB2-MP1	2018-06-26	1.00
575760	5007	R-HB2-MP1	2018-06-26	1.00
576961	5007	R-HB2-MP1	2018-06-26	1.00
618637	5007	R-HB2-MP1	2018-06-26	1.00
790138	5007	R-HB2-MP1	2018-06-26	1.00
781337	5007	R-ME-MP2	2019-08-21	1.00
17289	5007	R-NS2-MP1	2018-06-25	1.00
19742	5007	R-NS2-MP1	2018-06-25	1.00
177457	5007	R-NS2-MP2	2018-06-25	1.00
192083	5007	R-NS2-MP2	2018-06-25	1.00
193493	5007	R-NS2-MP2	2018-06-25	1.00
445371	5007	R-NS2-MP2	2018-06-25	1.00
199402	5007	R-PR-MP1	2019-08-21	1.00
222018	5007	R-PR-MP1	2019-08-21	1.00
200266	5007	R-PR-MP1	2021-06-24	1.00
203014	5007	R-PR-MP1	2021-06-24	1.00
204008	5007	R-PR-MP1	2021-06-24	1.00
208243	5007	R-PR-MP1	2021-06-24	1.00
210147	5007	R-PR-MP1	2021-06-24	1.00
212611	5007	R-PR-MP1	2021-06-24	1.00
222630	5007	R-PR-MP1	2021-06-24	1.00
461081	5007	R-PR-MP2	2021-06-24	1.00
461796	5007	R-PR-MP2	2021-06-24	1.00
465496	5007	R-PR-MP2	2021-06-24	1.00
502788	5007	R-PR-MP2	2021-06-24	1.00
503240	5007	R-PR-MP2	2021-06-24	1.00
503369	5007	R-PR-MP2	2021-06-24	1.00
772814	5007	R-PR-MP2	2021-06-24	1.00
188014	5007	R-SB-MP1	2018-09-13	1.00
188015	5007	R-SB-MP1	2018-09-13	1.00
194480	5007	R-SB-MP1	2018-09-13	1.00
205320	5007	R-SB-MP1	2018-09-13	1.00
206013	5007	R-SB-MP1	2018-09-13	1.00
260455	5007	R-SB-MP1	2018-09-13	1.00
530756	5007	R-SB-MP1	2018-09-13	1.00
214950	10002	East Hole	2003-09-30	1.00
214950 $214951$	10002	East Hole	2003-09-30	1.00
214951 $214952$	10002	East Hole	2003-09-30	1.00
211002	10002	2000 11010	2003 00 00	1.00

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
214953	10002	East Hole	2003-09-30	1.00
214954	10002	East Hole	2003-09-30	1.00
214955	10002	East Hole	2003-09-30	1.00
214956	10002	East Hole	2003-09-30	1.00
214957	10002	East Hole	2003-09-30	1.00
214973	10002	East Hole	2003-09-30	1.00
214974	10002	East Hole	2003-09-30	1.00
214975	10002	East Hole	2003-09-30	1.00
215050	10002	East Hole	2003-09-30	1.00
218456	10002	East Hole	2003-09-30	1.00
218457	10002	East Hole	2003-09-30	1.00
218458	10002	East Hole	2003-09-30	1.00
218459	10002	East Hole	2003-09-30	1.00
218460	10002	East Hole	2003-09-30	1.00
218461	10002	East Hole	2003-09-30	1.00
218462	10002	East Hole	2003-09-30	1.00
218463	10002	East Hole	2003-09-30	1.00
220606	10002	East Hole	2003-09-30	1.00
220607	10002	East Hole	2003-09-30	1.00
220608	10002	East Hole	2003-09-30	1.00
220609	10002	East Hole	2003-09-30	1.00
220610	10002	East Hole	2003-09-30	1.00
220611	10002	East Hole	2003-09-30	1.00
220612	10002	East Hole	2003-09-30	1.00
220613	10002	East Hole	2003-09-30	1.00
220614	10002	East Hole	2003-09-30	1.00
227484	10002	East Hole	2003-09-30	1.00
227485	10002	East Hole	2003-09-30	1.00
227527	10002	East Hole	2003-09-30	1.00
227528	10002	East Hole	2003-09-30	1.00
227529	10002	East Hole	2003-09-30	1.00
227530	10002	East Hole	2003-09-30	1.00
227607	10002	East Hole	2003-09-30	1.00
227608	10002	East Hole	2003-09-30	1.00
227609	10002	East Hole	2003-09-30	1.00
227610	10002	East Hole	2003-09-30	1.00
227611	10002	East Hole	2003-09-30	1.00
227612	10002	East Hole	2003-09-30	1.00
227613	10002	East Hole	2003-09-30	1.00
227622	10002	East Hole	2003-09-30	1.00
227623	10002	East Hole	2003-09-30	1.00
227624	10002	East Hole	2003-09-30	1.00
227625	10002	East Hole	2003-09-30	1.00
227626	10002	East Hole	2003-09-30	1.00
229086	10002	East Hole	2003-09-30	1.00
229087	10002	East Hole	2003-09-30	1.00
229088	10002	East Hole	2003-09-30	1.00
229119	10002	East Hole	2003-09-30	1.00
229120	10002	East Hole	2003-09-30	1.00
229121	10002	East Hole	2003-09-30	1.00
229122	10002	East Hole	2003-09-30	1.00
229123	10002	East Hole	2003-09-30	1.00

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
229124	10002	East Hole	2003-09-30	1.00
240298	10002	East Hole	2003-09-30	1.00
240299	10002	East Hole	2003-09-30	1.00
240300	10002	East Hole	2003-09-30	1.00
240301	10002	East Hole	2003-09-30	1.00
240302	10002	East Hole	2003-09-30	1.00
240303	10002	East Hole	2003-09-30	1.00
240304	10002	East Hole	2003-09-30	1.00
240305	10002	East Hole	2003-09-30	1.00
491030	10002	East Hole	2003-09-30	1.00
491031	10002	East Hole	2003-09-30	1.00
491032	10002	East Hole	2003-09-30	1.00
491220	10002	East Hole	2003-09-30	1.00
491221	10002	East Hole	2003-09-30	1.00
491222	10002	East Hole	2003-09-30	1.00
491223	10002	East Hole	2003-09-30	1.00
491224	10002	East Hole	2003-09-30	1.00
491225	10002	East Hole	2003-09-30	1.00
491226	10002	East Hole	2003-09-30	1.00
491227	10002	East Hole	2003-09-30	1.00

## Programs containing flagged data:

4012 - SCCF Oyster Restoration Monitoring 4044 - NRDA Oyster Cultch Recovery Project

5007 - RESTORE Oyster Cultch Recovery

10002 - Apalachicola Bay Oyster Size Class Monitoring

## Shell Height - (.1000)

Table 8: Flagged Values - Low Indicator Quantile:  $\bf 4.059$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
37629	5063	240	2016-11-13	3
112407	5063	375	2016-11-17	4

## Programs containing flagged data:

5063 - Distribution and Condition of Intertidal Eastern Oyster (Crassostrea virginica) Reefs in Apalachicola Bay Florida Based on High-Resolution Satellite Imagery

There are no Low Quantile Flagged Values for Shell Height - (1.0000)

## Shell Height - (NULL)

Table 9: Flagged Values - Low Indicator Quantile:  $\bf 3.71896$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
634307	4042	042a	2021-01-13	3.71
663787	4042	185a	2018-01-30	2.00
803517	4042	185a	2018-01-30	2.00
755022	4042	371a	2018-01-29	3.30
445274	4042	515a	2018-01-31	2.00
479441	4042	515a	2018-01-31	2.00
755370	4042	515a	2018-01-31	3.00
591345	4042	699b	2015-03-05	2.00

## Programs containing flagged data:

4042- Estero Bay Oyster Monitoring

There are no Low Quantile Flagged Values for Shell Height - (NA)

# High Quantile

Indicator: Density

Density

Table 10: Flagged Values - High Indicator Quantile: 7517.28

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
193732	4000	PF323	2015-12-16	8208
455059	4000	PF323	2015-12-16	9136
31175	4000	PF415	2016-01-13	8448
183477	4000	PFD	2015-08-06	11104
190361	4000	PFD	2015-08-06	7552

#### Programs containing flagged data:

4000- Guana Tolomato Matanzas NERR Oyster monitoring

## Number of Oysters Counted - Total - (.0625)

Table 11: Flagged Values - High Indicator Quantile:  ${\bf 532.257}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
190022		PF323	2015-12-16	571
201432		PFD	2015-08-06	694

## Programs containing flagged data:

4000- Guana Tolomato Matanzas NERR Oyster monitoring

## Number of Oysters Counted - Total - (.2500)

Table 12: Flagged Values - High Indicator Quantile: 590

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
185721	4014	10	2003-09-22	896
459664	4014	13	2003-10-21	1028
136578	5073	FLAO61-A1006-TJ916Q	2010-10-06	596

#### Programs containing flagged data:

- 4014 Loxahatchee River Oyster Mapping and Recruitment
- 5073 Deepwater Horizon NRDA Oyster Technical Working Group Oyster Quadrat Abundance Sampling

## Number of Oysters Counted - Total - (.1000)

Table 13: Flagged Values - High Indicator Quantile:  ${\bf 288.64}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
70949	5063	368	2016-11-17	289

#### Programs containing flagged data:

5063 - Distribution and Condition of Intertidal Eastern Oyster (Crassostrea virginica) Reefs in Apalachicola Bay Florida Based on High-Resolution Satellite Imagery

## Number of Oysters Counted - Total - (1.0000)

Table 14: Flagged Values - High Indicator Quantile:  ${\bf 305.722}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
171829	5073	FLAN61-D0827-T1550005-04Q	2013-08-27	310

#### Programs containing flagged data:

5073- Deepwater Horizon NRDA Oyster Technical Working Group Oyster Quadrat Abundance Sampling

## Number of Oysters Counted - Total - (NULL)

Table 15: Flagged Values - High Indicator Quantile:  ${\bf 104.64}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
79472	4012	TB_Reference	2023-03-15	105

## Programs containing flagged data:

4012 - SCCF Oyster Restoration Monitoring

## Number of Oysters Counted - Live - (.2500)

Table 16: Flagged Values - High Indicator Quantile:  ${\bf 494.015}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
97744	4012	TB_Restore	2016-03-01	512
129081	4014	10	2003-09-22	695
143044	4014	13	2003-10-21	901

#### Programs containing flagged data:

4012 - SCCF Oyster Restoration Monitoring

4014 - Loxahatchee River Oyster Mapping and Recruitment

## Number of Oysters Counted - Live - (.0625)

Table 17: Flagged Values - High Indicator Quantile:  ${\bf 223.863}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
90476	~ -	ANG1	2013-05-22	248
82501		ANG1	2017-12-14	225

## Programs containing flagged data:

972- Sarasota County Comprehensive Oyster Monitoring Program

## Number of Oysters Counted - Live - (1.0000)

Table 18: Flagged Values - High Indicator Quantile:  $\bf 277.008$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
419799	5073	FLAN61-D0827-T1550005-04Q	2013-08-27	290

#### Programs containing flagged data:

5073 - Deepwater Horizon NRDA Oyster Technical Working Group Oyster Quadrat Abundance Sampling

## Number of Oysters Counted - Live - (.1000)

Table 19: Flagged Values - High Indicator Quantile:  ${\bf 265.55}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
79230	5063	368	2016-11-17	267

#### Programs containing flagged data:

5063 - Distribution and Condition of Intertidal Eastern Oyster (Crassostrea virginica) Reefs in Apalachicola Bay Florida Based on High-Resolution Satellite Imagery

## Number of Oysters Counted - Live - (NULL)

Table 20: Flagged Values - High Indicator Quantile:  ${\bf 101.152}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
83523	4012	TB_Reference	2023-03-15	102

#### Programs containing flagged data:

4012 - SCCF Oyster Restoration Monitoring

## Number of Oysters Counted - Dead - (.2500)

Table 21: Flagged Values - High Indicator Quantile: 179.84

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
37868	4014	10	2003-09-22	201
398197	5073	$\rm FLAO61\text{-}A1006\text{-}TJ916Q$	2010-10-06	542

## Programs containing flagged data:

- 4014 Loxahatchee River Oyster Mapping and Recruitment
- 5073- Deepwater Horizon NRDA Oyster Technical Working Group Oyster Quadrat Abundance Sampling

## Number of Oysters Counted - Dead - (.0625)

Table 22: Flagged Values - High Indicator Quantile:  ${f 100}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
110088	5075	SGI03	2019-12-16	103

## Programs containing flagged data:

5075- Apalachicola Bay Intertidal Oyster Sampling

## Number of Oysters Counted - Dead - (.1000)

Table 23: Flagged Values - High Indicator Quantile:  ${\bf 69.062}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
40021	5063	385	2016-11-17	70

#### Programs containing flagged data:

5063 - Distribution and Condition of Intertidal Eastern Oyster (Crassostrea virginica) Reefs in Apalachicola Bay Florida Based on High-Resolution Satellite Imagery

## Number of Oysters Counted - Dead - (1.0000)

Table 24: Flagged Values - High Indicator Quantile:  $\bf 174.472$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
171822	5073	FLAN61-A1006-TJ912Q	2010-10-06	178

#### Programs containing flagged data:

5073- Deepwater Horizon NRDA Oyster Technical Working Group Oyster Quadrat Abundance Sampling

## Number of Oysters Counted - Dead - (NULL)

Table 25: Flagged Values - High Indicator Quantile:  $\bf 27.898$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
83394	4012	TB_Reference	2021-03-11	28

#### Programs containing flagged data:

4012 - SCCF Oyster Restoration Monitoring

## Reef Height

Table 26: Flagged Values - High Indicator Quantile:  ${\bf 15687}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
595749	5075	SGI02	2019-12-16	15700
793203		SGI02	2019-12-16	16300
115979		SGI03	2019-12-16	16100

## Programs containing flagged data:

5075- Apalachicola Bay Intertidal Oyster Sampling

## **Indicator: Percent Live**

There are no  $\mathit{High}$  Quantile Flagged Values for Percent Live

Indicator: Size Class

Shell Height - (.0625)

Table 27: Flagged Values - High Indicator Quantile:  ${\bf 126.0171}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
628444	4000	FM32	2018-09-10	126.5
532218	4000	GR1	2014-05-22	136.6
486180	4000	GR1	2015-07-22	138.7
492750	4000	GR1	2016-08-22	134.8
781152	4000	GR1	2016-08-22	132.0
5290	4000	GR11	2016-02-17	135.7
5328	4000	GR11	2016-02-17	140.1
7391	4000	GR11	2016-02-17	150.9
7396	4000	GR11	2016-02-17	127.8
548866	4000	GR1A	2018-09-11	142.1
33183	4000	GR21	2016-09-12	128.7
9434	4000	GR2A	2016-07-27	131.3
13989	4000	GR2A	2016-07-27	142.9
785532	4000	GR2B	2020-02-17	132.0
83061	4000	GR30	2016-09-12	146.8
87334	4000	GR30	2016-09-12	129.2
98615	4000	GR32	2016-08-24	126.7
29577	4000	GR4	2015-07-23	128.7
537864	4000	GR70	2016-02-17	163.0
467945	4000	GR78	2016-08-24	138.8
499174	4000	GR78	2016-08-24	135.3
577211	4000	MC2	2015-06-22	237.2
778468	4000	SA443	2016-08-26	129.8
794290	4000	SR1A	2016-08-10	152.9
111824	4000	SR4	2014-06-03	130.2
345465	4000	SR4	2014-07-03	130.2
133823	4000	SR4	2015-01-27	132.4
212887	4000	SR5	2015-06-23	126.9
67258	4000	SR6A	2016-07-29	146.2
70114	4000	SR6A	2016-07-29	126.4
606831	4000	SR7	2015-01-27	129.8
127768	4000	SR7A	2016-07-29	126.9
138791	4000	SR7A	2016-07-29	128.1
421591	4000	SR8	2015-01-27	130.0
427348	4000	SR8	2015-01-27	134.2
427349	4000	SR8	2015-01-27	137.5
441953	4000	SR8	2015-01-27	146.5
716158	4000	SR8	2015-01-27	128.5
718414	4000	SR8	2015-06-23	130.7
716157	4000	SR8	2016-12-28	174.5
432234	4000	SR86	2016-08-17	126.1
441560	4000	SR86	2016-08-17	133.0
474560	4000	SR86	2016-08-17	131.6

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
268319	4000	TR220	2016-02-29	135.2
615142	4000	TR3A	2014-06-04	137.2
61462	4000	W22GR13	2022-01-13	135.1
574317	4000	W22GR14	2022-01-13	126.4
597204	4000	W22GR14	2022-01-13	130.5
598551	4000	W22GR14	2022-01-13	129.3
640046	4000	W22GR14	2022-01-13	130.3
437478	4000	W22GR15	2022-03-16	135.0
443215	4000	W22GR15	2022-03-16	158.0
445362	4000	W22GR15	2022-03-16	126.5
455017	4000	W22GR15	2022-03-16	127.6
455070	4000	W22GR15	2022-03-16	143.4
464264	4000	W22GR15	2022-03-16	145.8
475906	4000	W22GR15	2022-03-16	153.2
479967	4000	W22GR15	2022-03-16	128.9
755548	4000	W22GR15	2022-03-16	133.8
755549	4000	W22GR15	2022-03-16	135.6
474876	4000	W22GR17	2022-03-16	152.1
477534	4000	W22GR17	2022-03-16	150.1
490079	4000	W22GR17	2022-03-16	127.6
491412	4000	W22GR17	2022-03-16	128.3
491413	4000	W22GR17	2022-03-16	129.5
504839	4000	W22GR17	2022-03-16	133.5
504840	4000	W22GR17	2022-03-16	137.2
509925	4000	W22GR17	2022-03-16	150.5
512207	4000	W22GR17	2022-03-16	150.0
608961	5017	B1 NEW	2016-06-02	139.5
451015	5017	B2	2016-05-31	129.5
468282	5017	B2	2016-05-31	142.3
468283	5017	B2	2016-05-31	149.3
483346	5017	B2	2016-05-31	126.9
165193	5017	B5	2016-06-28	164.3
7687	5017	MLC3	2015-05-30	865.0
35728	5017	MLC5	2015-06-10	344.0
40291	5017	MLC5	2015-06-10	367.0
270727	5017	MLC7	2015-05-31	136.0

## Programs containing flagged data:

 $4\theta\theta\theta$ - Guana Tolomato Matanzas NERR Oyster monitoring

5017 - Northern Coastal Basins and Mosquito Lagoon Oyster Condition Assessment

# Shell Height - (.2500)

Table 28: Flagged Values - High Indicator Quantile:  ${\bf 105}$ 

D oz-ID	Dno mr ID	Due and red a continuity	Co1-D-1	D ogul+W-1-
RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
122210	4014	NWF_37_1	2008-07-18	110.00
267739	4014	NWF_39_1	2008-07-24	115.00
537577	4014	NWF_50_1	2008-07-25	110.00
92514	4014	NWF_52_1	2008-07-25	110.00
143046	4014	NWF_56_4	2013-07-02	116.00
772384	4014	NWF_76_1	2008-08-15	110.00
740719	4014	NWF_77_2	2013-07-15	110.00
37878	4014	NWF_79_2	2013-07-15	115.00
87165	4014	$SWF\_01\_2$	2008-07-01	130.00
510397	4014	SWF_02_3	2008-07-01	110.00
104667	4014	SWF_06_3	2008-07-02	110.00
572374	4014	SWF_19_1	2008-07-10	150.00
475150	4014	SWF_23_1	2013-08-15	110.00
38140	4014	SWF_25_1	2013-07-29	118.00
99268	4014	SWF_25_2	2013-07-29	125.00
774082	4014	SWF_27_1	2008-07-10	115.00
580598	4014	SWF_28_1	2008-07-11	115.00
789048	4014	SWF_28_1	2008-07-11	130.00
357311	4014	SWF_29_1	2008-07-11	110.00
429467	4014	SWF_33_1	2008-07-11	110.00
525095	4014	SWF_35_1	2008-07-11	110.00
87578	4044	NRDA_APA-CP-MP1	2017-04-18	125.00
90088	4044	NRDA_APA-CP-MP1	2017-04-18	107.00
97605	4044	NRDA_APA-CP-MP1	2017-04-18	115.00
283604	4044	NRDA_APA-CP-MP1	2017-04-18	112.00
557732	4044	NRDA_APA-CT-MP1	2018-04-02	110.00
31253	4044	NRDA_APA-CT-MP2	2017-06-30	113.00
94270	4044	NRDA_APA-CT-MP2	2017-06-30	128.00
662476	4044	NRDA_APA-LH-MP1	2017-06-09	107.00
667705	4044	NRDA_APA-LH-MP1	2018-03-15	111.00
34617	4044	NRDA_APA-NBN-MP1	2021-12-02	109.00
97794	4044	NRDA_APA-NBN-MP1	2021-12-02	106.00
580612	4044	NRDA_APA-RC1-MP1	2018-03-05	108.00
4468	4044	NRDA_APA-RC2-MP1	2017-07-05	110.00
5866	4044	NRDA_APA-RC2-MP1	2017-07-05	138.00
519182	5007	R-CP-MP1	2021-04-14	107.00
421836	5007	R-CPS-MP1	2021-06-17	108.00
85466	5007	R-CPS-MP2	2021-06-17	118.00
158988	5007	R-ME-MP1	2021-06-04	108.00
496893	5007	R-ME-MP2	2021-06-04	112.00
203851	5007	R-PR-MP1	2021-06-24	143.00
210378	5007	R-PR-MP1	2021-06-24	129.00
212644	5007	R-PR-MP1	2021-06-24	120.00
480562	5007	R-PR-MP2	2021-06-24	116.00
187890	5007	R-SB-MP1	2021-06-04	108.00
265542	5007	R-SB-MP1	2021-06-04	112.00
171655	5070	Inshore 1	2016-07-25	108.47
419738	5070	Inshore 1	2016-07-25	108.47

DID	D ID	D	C1-D-4-	D1437-1
RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
197961	5070	Inshore 4	2016-07-25	110.25
198422	5070	Inshore 4	2016-07-25	110.25
205474	5070	Inshore 4	2016-07-25	109.16
221134	5070	Inshore 4	2016-07-25	109.16
605176	5074	Homo_18	2018-03-22	107.00
41449	5074	Homo_21	2018-03-28	107.00
45376	5074	Homo_21	2018-03-28	112.00
193605	5074	Homo_21	2018-03-28	105.50
121911	10002	Bulkhead Plant	1989-04-21	110.00
126432	10002	Bulkhead Plant	1989-04-21	135.00
128962	10002	Bulkhead Plant	1989-04-21	110.00
148840	10002	Cabbage Lump	1984-06-14	110.00
148843	10002	Cabbage Lump	1984-06-14	130.00
154105	10002	Cabbage Lump	1984-06-14	160.00
158417	10002	Cabbage Lump	1984-06-14	120.00
158418	10002	Cabbage Lump	1984-06-14	130.00
417559	10002	Cabbage Lump	1989-09-05	110.00
167668	10002	Cabbage Lump	1992-07-13	115.00
155719	10002	Cabbage Lump	1992-09-15	125.00
171574	10002	Cabbage Lump	1992-09-15	110.00
171577	10002	Cabbage Lump	1992-09-15	110.00
586395	10002	Cat Plant	1991-06-18	115.00
794609	10002	Cat Plant	1991-06-18	110.00
565156	10002	Cat Plant	1992-06-23	110.00
565186	10002	Cat Plant	1992-06-23	110.00
566870	10002	Cat Plant	1992-06-23	150.00
582268	10002	Cat Plant	1992-06-23	115.00
582269	10002	Cat Plant	1992-06-23	115.00
583855	10002	Cat Plant	1992-06-23	110.00
583856	10002	Cat Plant	1992-06-23	125.00
585362	10002	Cat Plant	1992-06-23	110.00
600979	10002	Cat Plant	1992-06-23	110.00
605577	10002	Cat Plant	1992-06-23	150.00
607629	10002	Cat Plant	1992-06-23	115.00
611688	10002	Cat Plant	1992-06-23	110.00
612073	10002	Cat Plant	1992-06-23	115.00
652002	10002	Cat Plant	1992-06-23	110.00
794455	10002	Cat Plant	1992-06-23	125.00
794554	10002	Cat Plant	1992-06-23	110.00
583676	10002	Cat Plant	1993-06-22	120.00
583728	10002	Cat Plant	1993-06-22	110.00
599090	10002	Cat Plant	1993-06-22	115.00
621070	10002	Cat Plant	1993-06-22	110.00
694519	10002	Cat Point	1988-06-07	110.00
705062	10002	Cat Point	1988-06-07	110.00
728159	10002	Cat Point	1988-06-07	120.00
714931	10002	Cat Point	1990-06-14	110.00
673569	10002	Cat Point	1990-09-18	125.00
696797	10002	Cat Point	1990-09-18	120.00
687270	10002	Cat Point	1991-06-18	110.00
703830	10002	Cat Point	1991-06-18	110.00
734734	10002	Cat Point	1991-11-26	110.00
101101	10002	230 1 01110	1001 11 20	110.00

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
691859	10002	Cat Point	1993-04-29	110.00
3088	10002	Cat Relay	1992-06-23	110.00
3181	10002	Cat Relay	1992-06-23	135.00
7956	10002	Cat Relay	1992-06-23	120.00
9194	10002	Cat Relay	1992-06-23	110.00
10658	10002	Cat Relay	1992-06-23	110.00
332728	10002	Dry Bar	1982-09-01	110.00
344001	10002	Dry Bar	1982-09-01	110.00
351380	10002	Dry Bar	1982-09-01	110.00
386114	10002	Dry Bar	1992-11-23	125.00
391979	10002	Dry Bar	1992-11-23	120.00
403241	10002	Dry Bar	1992-11-23	115.00
387500	10002	Dry Bar	1993-06-03	120.00
387558	10002	Dry Bar	1993-06-03	110.00
692801	10002	Dry Bar	1993-06-03	110.00
692802	10002	Dry Bar	1993-06-03	110.00
108386	10002	Dry Com	1993-00-03	125.00
		Dry Com	1992-11-23	
124226	10002	v		120.00
331045	10002	Dry Com	1992-11-23	115.00
195096	10002	Dry Plant / North Crup Plant	1990-09-19	110.00
56289	10002	Dry Plant / North Spur Plant	1985-09-12	115.00
51767	10002	Dry Plant / North Spur Plant	1985-10-01	115.00
53398	10002	Dry Plant / North Spur Plant	1985-10-01	115.00
54561	10002	Dry Plant / North Spur Plant	1985-10-01	110.00
56292	10002	Dry Plant / North Spur Plant	1985-10-01	110.00
62351	10002	Dry Plant / North Spur Plant	1985-10-01	115.00
62685	10002	Dry Plant / North Spur Plant	1985-10-01	110.00
62908	10002	Dry Plant / North Spur Plant	1985-10-01	110.00
189214	10002	Dry Plant / North Spur Plant	1985-10-01	115.00
189215	10002	Dry Plant / North Spur Plant	1985-10-01	110.00
62650	10002	Dry Plant / North Spur Plant	1985-11-06	110.00
63819	10002	Dry Plant / North Spur Plant	1986-01-07	110.00
63820	10002	Dry Plant / North Spur Plant	1986-01-07	110.00
190479	10002	Dry Plant / North Spur Plant	1986-01-07	110.00
63262	10002	Dry Plant / North Spur Plant	1986-09-25	110.00
53558	10002	Dry Plant / North Spur Plant	1987-09-10	120.00
55804	10002	Dry Plant / North Spur Plant	1988-06-09	120.00
63557	10002	Dry Plant / North Spur Plant	1989-06-14	115.00
56040	10002	Dry Plant / North Spur Plant	1989-09-07	120.00
228769	10002	East Hole	1988-06-08	120.00
229846	10002	East Hole	1989-09-06	120.00
210012	10002	East Hole	1993-06-02	115.00
213895	10002	East Hole	1993-06-02	110.00
223020	10002	East Hole	1993-06-02	110.00
231406	10002	East Hole	1993-06-02	110.00
239502	10002	East Hole	1993-06-02	110.00
248827	10002	East Hole	1993-06-02	130.00
642591	10002	Green Point Plant	1984-06-12	120.00
642593	10002	Green Point Plant	1984-06-12	110.00
643916	10002	Green Point Plant	1984-06-12	110.00
653871	10002	Green Point Plant	1984-06-12	130.00
674757	10002	Green Point Plant	1984-06-12	120.00

RowID	ProgramID	${\bf Program Location ID}$	SampleDate	${\bf Result Value}$
675160	10002	Green Point Plant	1984-06-12	110.00
708440	10002	Green Point Plant	1984-06-12	110.00
801061	10002	Green Point Plant	1984-06-12	110.00
646068	10002	Green Point Plant	1985-05-31	125.00
657051	10002	Green Point Plant	1985-05-31	110.00
712849	10002	Green Point Plant	1985-05-31	120.00
800786	10002	Green Point Plant	1985-05-31	110.00
636383	10002	Green Point Plant	1985-09-04	110.00
645525	10002	Green Point Plant	1986-04-30	110.00
648580	10002	Green Point Plant	1986-04-30	110.00
632085	10002	Green Point Plant	1986-08-01	115.00
657085	10002	Green Point Plant	1987-09-09	115.00
698695	10002	Green Point Plant	1987-09-09	115.00
639193	10002	Green Point Plant	1989-09-07	120.00
642657	10002	Green Point Plant	1990-09-18	110.00
658749	10002	Green Point Plant	1991-09-18	110.00
632415	10002	Green Point Plant	1992-07-13	125.00
632299	10002	Green Point Plant	1992-09-15	110.00
482776	10002	Lighthouse Bar	1987-06-04	115.00
482777	10002	Lighthouse Bar	1987-06-04	130.00
482780	10002	Lighthouse Bar	1987-06-04	120.00
483745	10002	Lighthouse Bar	1987-06-04	115.00
490178	10002	Lighthouse Bar	1987-06-04	115.00
490928	10002	Lighthouse Bar	1987-06-04	110.00
502820	10002	Lighthouse Bar	1987-06-04	110.00
503356	10002	Lighthouse Bar	1987-06-04	110.00
780801	10002	Lighthouse Bar	1987-06-04	120.00
780805	10002	Lighthouse Bar	1987-06-04	115.00
780924	10002	Lighthouse Bar	1987-06-04	115.00
780928	10002	Lighthouse Bar	1987-06-04	110.00
482718	10002	Lighthouse Bar	1987-10-15	110.00
491568	10002	Lighthouse Bar	1987-10-15	110.00
780788	10002	Lighthouse Bar	1987-10-15	110.00
491143	10002	Lighthouse Bar	1988-06-07	135.00
491150	10002	Lighthouse Bar	1988-06-07	110.00
502762	10002	_	1988-06-07	135.00
504416	10002	Lighthouse Bar	1988-06-07	115.00
519527	10002	Lighthouse Bar	1988-06-07	120.00
519575	10002	Lighthouse Bar	1988-06-07	135.00
529205	10002	Lighthouse Bar	1988-06-07	120.00
497394	10002	Lighthouse Bar	1989-06-13	120.00
497395	10002	Lighthouse Bar	1989-06-13	125.00
499020	10002	Lighthouse Bar	1989-06-13	110.00
510003	10002	Lighthouse Bar	1989-06-13	120.00
512502	10002	Lighthouse Bar	1989-06-13	110.00
512302 $527005$	10002	Lighthouse Bar	1989-06-13	135.00
536665	10002	Lighthouse Bar	1989-06-13	110.00
781771	10002	Lighthouse Bar	1989-06-13	115.00
511444	10002	Lighthouse Bar	1990-06-12	125.00
779666	10002	Lighthouse Bar	1990-06-12	140.00
779646	10002	Lighthouse Bar	1990-09-20	110.00
476140	10002	Lighthouse Bar	1990-09-20	110.00
410140	10002	nghillouse Dai	1992-00-22	110.00

D ID	D ID	D I 1: ID	G 1.D.	D 1/37 1
RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
476141	10002	Lighthouse Bar	1992-06-22	110.00
477875	10002	Lighthouse Bar	1992-06-22	110.00
486518	10002	Lighthouse Bar	1992-06-22	110.00
496303	10002	Lighthouse Bar	1992-06-22	110.00
499250	10002	Lighthouse Bar	1992-06-22	115.00
499942	10002	Lighthouse Bar	1992-06-22	110.00
500079	10002	Lighthouse Bar	1992-06-22	115.00
514282	10002	Lighthouse Bar	1992-06-22	120.00
515419	10002	Lighthouse Bar	1992-06-22	110.00
779859	10002	Lighthouse Bar	1992-06-22	110.00
779860	10002	Lighthouse Bar	1992-06-22	110.00
780085	10002	Lighthouse Bar	1992-06-22	110.00
780086	10002	Lighthouse Bar	1992-06-22	115.00
417656	10002	Norman's Lump	1982-09-01	115.00
435684	10002	Norman's Lump	1982-12-01	110.00
447798	10002	Norman's Lump	1983-06-01	115.00
720198	10002	Norman's Lump	1983-06-01	115.00
722232	10002	Norman's Lump	1984-06-01	110.00
411107	10002	Norman's Lump	1984-09-01	120.00
449102	10002	Norman's Lump	1984-09-01	110.00
412774	10002	Norman's Lump	1986-06-05	110.00
415226	10002	Norman's Lump	1986-06-05	110.00
722945	10002	Norman's Lump	1986-09-23	115.00
424830	10002	Norman's Lump	1987-06-04	125.00
425013	10002	Norman's Lump	1987-06-04	115.00
440969	10002	Norman's Lump	1987-06-04	110.00
445518	10002	Norman's Lump	1987-06-04	110.00
440872	10002	Norman's Lump	1987-10-15	110.00
440877	10002	Norman's Lump	1987-10-15	110.00
462831	10002	Norman's Lump	1987-10-15	110.00
431191	10002	Norman's Lump	1988-06-07	110.00
435356	10002	Norman's Lump	1988-06-07	110.00
431184	10002	Norman's Lump	1989-06-13	140.00
416356	10002	Norman's Lump	1990-06-11	110.00
727585	10002	Norman's Lump	1990-06-11	110.00
165881	10002	Norman's Lump South	1991-06-18	110.00
167990	10002	Norman's Lump South	1991-06-18	110.00
171430	10002	Norman's Lump South	1991-06-18	115.00
173480	10002	Norman's Lump South	1991-06-18	110.00
173807	10002	Norman's Lump South	1991-06-18	115.00
180864	10002	Norman's Lump South	1991-06-18	135.00
180865	10002	Norman's Lump South	1991-06-18	110.00
430073	10002	Norman's Lump South	1991-06-18	120.00
430076	10002	Norman's Lump South	1991-06-18	110.00
430077	10002	Norman's Lump South	1991-06-18	110.00
430425	10002	Norman's Lump South	1991-06-18	110.00
168199	10002	Norman's Lump South	1992-06-22	115.00
168256	10002	Norman's Lump South	1992-06-22	110.00
174297	10002	Norman's Lump South	1992-06-22	115.00
430706	10002	Norman's Lump South	1992-06-22	115.00
430769	10002	Norman's Lump South	1992-06-22	120.00
163668	10002	Norman's Lump South	1993-06-11	110.00
100000	10002	1.orman o Dump boutin	1000 00 11	110.00

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
163791	10002	Norman's Lump South	1993-06-11	110.00
167582	10002	Norman's Lump South	1993-06-11	110.00
169720	10002	Norman's Lump South	1993-06-11	110.00
173261	10002	Norman's Lump South	1993-06-11	115.00
432142	10002	Norman's Lump South	1993-06-11	110.00
462476	10002	Norman's South	1993-06-16	110.00
462477	10002	Norman's South	1993-06-16	110.00
470435	10002	Norman's South	1993-06-16	115.00
480616	10002	Norman's South	1993-06-16	110.00
483987	10002	Norman's South	1993-06-16	120.00
775032	10002	Norman's South	1993-06-16	110.00
775033	10002	Norman's South	1993-06-16	110.00
514670	10002	Paradise Flats	1985-09-12	110.00
537095	10002	Paradise Flats	1985-09-12	120.00
522675	10002	Paradise Flats	1985-11-06	115.00
514578	10002	Paradise Flats	1986-01-07	115.00
526651	10002	Paradise Flats	1986-01-07	115.00
533366	10002	Paradise Flats	1986-01-07	115.00
533372	10002	Paradise Flats	1986-01-07	115.00
551232	10002	Paradise Flats	1986-01-07	120.00
570600	10002	Paradise Flats	1986-01-07	115.00
514517	10002	Paradise Flats	1986-04-30	110.00
514574	10002	Paradise Flats	1986-04-30	120.00
522595	10002	Paradise Flats	1986-04-30	130.00
522597	10002	Paradise Flats	1986-04-30	110.00
522671	10002	Paradise Flats	1986-04-30	110.00
522672	10002	Paradise Flats	1986-04-30	120.00
533263	10002	Paradise Flats	1986-04-30	110.00
533264	10002	Paradise Flats	1986-04-30	110.00
533269	10002	Paradise Flats	1986-04-30	110.00
536887	10002	Paradise Flats	1986-04-30	110.00
536889	10002	Paradise Flats	1986-04-30	125.00
536893	10002	Paradise Flats	1986-04-30	110.00
536894	10002	Paradise Flats	1986-04-30	120.00
551175	10002	Paradise Flats	1986-04-30	110.00
551224	10002	Paradise Flats	1986-04-30	110.00
551235	10002	Paradise Flats	1986-04-30	125.00
570459	10002	Paradise Flats	1986-04-30	110.00
570462	10002	Paradise Flats	1986-04-30	115.00
570464	10002	Paradise Flats	1986-04-30	110.00
570594	10002	Paradise Flats	1986-04-30	120.00
570596	10002	Paradise Flats	1986-04-30	110.00
570597	10002	Paradise Flats	1986-04-30	110.00
784846	10002	Paradise Flats	1986-04-30	110.00
784858	10002	Paradise Flats	1986-04-30	110.00
526320	10002	Paradise Flats	1986-07-31	110.00
533204	10002	Paradise Flats	1986-07-31	130.00
536834	10002	Paradise Flats	1986-07-31	170.00
551167	10002	Paradise Flats	1986-07-31	110.00
551168	10002	Paradise Flats	1986-07-31	110.00
551230	10002	Paradise Flats	1986-07-31	115.00
570466	10002	Paradise Flats	1986-07-31	150.00
310400	10002	1 61 66100 1 1600	1000 01-01	100.00

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
522403	10002	Paradise Flats	1986-09-24	115.00
526042	10002	Paradise Flats	1986-09-24	110.00
551169	10002	Paradise Flats	1986-09-24	120.00
563904	10002	Paradise Flats	1986-09-24	115.00
566577	10002	Paradise Flats	1986-09-24	120.00
605452	10002	Paradise Flats	1986-09-24	140.00
558987	10002	Paradise Flats	1987-09-10	110.00
603646	10002	Paradise Flats	1987-09-10	110.00
788845	10002	Paradise Flats	1988-09-27	120.00
603531	10002	Paradise Flats	1989-09-05	110.00
60757	10002	Platform Bar	1982-09-01	110.00
61088	10002	Platform Bar	1982-09-01	110.00
62688	10002	Platform Bar	1982-09-01	120.00
62853	10002	Platform Bar	1982-09-01	120.00
63192	10002	Platform Bar	1982-09-01	130.00
65848	10002	Platform Bar	1982-09-01	145.00
69072	10002	Platform Bar	1982-09-01	120.00
69073	10002	Platform Bar	1982-09-01	110.00
71881	10002	Platform Bar	1982-09-01	110.00
60767	10002	Platform Bar	1982-12-01	115.00
63203	10002	Platform Bar	1982-12-01	110.00
65903	10002	Platform Bar	1982-12-01	110.00
72406	10002	Platform Bar	1982-12-01	115.00
72497	10002	Platform Bar	1982-12-01	125.00
72499	10002	Platform Bar	1983-06-01	110.00
72507	10002	Platform Bar	1983-06-01	115.00
65295	10002	Platform Bar	1984-06-01	120.00
71270	10002	Platform Bar	1984-06-01	110.00
73361	10002	Platform Bar	1984-06-01	110.00
73851	10002	Platform Bar	1984-06-01	110.00
73985	10002	Platform Bar	1984-06-01	115.00
221379	10002	Platform Bar	1984-06-01	120.00
67655	10002	Platform Bar	1984-12-01	115.00
67988	10002	Platform Bar	1984-12-01	120.00
74458	10002	Platform Bar	1984-12-01	110.00
224711	10002	Platform Bar	1984-12-01	110.00
65223	10002	Platform Bar	1985-05-29	125.00
65224	10002	Platform Bar	1985-05-29	125.00
65662	10002	Platform Bar	1985-05-29	125.00 $125.00$
65729	10002	Platform Bar	1985-05-29	110.00
65857	10002	Platform Bar	1985-05-29	110.00
65992	10002	Platform Bar	1985-05-29	110.00
66033	10002	Platform Bar	1985-05-29	115.00
66133	10002	Platform Bar	1985-05-29	120.00
66325	10002	Platform Bar	1985-05-29	120.00
66459	10002	Platform Bar	1985-05-29	130.00
66460	10002 $10002$	Platform Bar	1985-05-29 1985-05-29	125.00
67042	10002 $10002$	Platform Bar	1985-05-29 1985-05-29	125.00
67942	10002 $10002$	Platform Bar	1985-05-29 1985-05-29	
				110.00
67971	10002	Platform Bar	1985-05-29	110.00
68710	10002	Platform Bar	1985-05-29	125.00
68915	10002	Platform Bar	1985-05-29	110.00

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
69048	10002	Platform Bar	1985-05-29	110.00
69185	10002	Platform Bar	1985-05-29	110.00
69249	10002	Platform Bar	1985-05-29	115.00
69397	10002	Platform Bar	1985-05-29	120.00
69553	10002	Platform Bar	1985-05-29	115.00
73289	10002	Platform Bar	1985-05-29	110.00
73755	10002	Platform Bar	1985-05-29	120.00
73827	10002	Platform Bar	1985-05-29	115.00
73828	10002	Platform Bar	1985-05-29	110.00
74797	10002	Platform Bar	1985-05-29	110.00
74913	10002	Platform Bar	1985-05-29	125.00
74947	10002	Platform Bar	1985-05-29	120.00
74948	10002	Platform Bar	1985-05-29	115.00
75273	10002	Platform Bar	1985-05-29	130.00
75332	10002	Platform Bar	1985-05-29	110.00
75333	10002	Platform Bar	1985-05-29	110.00
75729	10002	Platform Bar	1985-05-29	110.00
75730	10002	Platform Bar	1985-05-29	110.00
75755	10002	Platform Bar	1985-05-29	110.00
75756	10002	Platform Bar	1985-05-29	110.00
75799	10002	Platform Bar	1985-05-29	130.00
75800	10002	Platform Bar	1985-05-29	120.00
76009	10002	Platform Bar	1985-05-29	120.00
76162	10002	Platform Bar	1985-05-29	110.00
226095	10002	Platform Bar	1985-05-29	110.00
227000	10002	Platform Bar	1985-05-29	110.00
227442	10002	Platform Bar	1985-05-29	120.00
227547	10002	Platform Bar	1985-05-29	110.00
227548	10002	Platform Bar	1985-05-29	110.00
228007	10002	Platform Bar	1985-05-29	115.00
228008	10002	Platform Bar	1985-05-29	110.00
67088	10002	Platform Bar	1987-09-09	120.00
69504	10002	Platform Bar	1987-09-09	110.00
69741	10002	Platform Bar	1987-09-09	120.00
70000	10002	Platform Bar	1987-09-09	110.00
228778	10002	Platform Bar	1987-09-09	120.00
69587	10002	Platform Bar	1988-06-07	120.00
76621	10002	Platform Bar	1988-06-07	110.00
76826	10002	Platform Bar	1988-06-07	110.00
230192	10002	Platform Bar	1988-06-07	110.00
76872	10002	Platform Bar	1988-09-29	110.00
212240	10002	Platform Bar	1989-09-06	130.00
61732	10002	Platform Bar	1990-06-14	110.00
656535	10002	Platform Bar East	1991-06-19	110.00
677026	10002	Platform Bar East	1991-06-19	110.00
622711	10002	Porters Bar	1992-09-03	110.00

#### Programs containing flagged data:

- Loxahatchee River Oyster Mapping and Recruitment 4044- NRDA Oyster Cultch Recovery Project 5007- RESTORE Oyster Cultch Recovery

- Prehistoric baseline reveals substantial decline of oyster reef condition in a Gulf of Mexico conservation priority area - modern oyster data

- Assessment of Oysters and Barnacles Along the Chassahowitzka, Homosassa, and Lower Withlacoochee River Systems

- Apalachicola Bay Oyster Size Class Monitoring

### Shell Height - (.1000)

Table 29: Flagged Values - High Indicator Quantile:  $\bf 79.941$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
574200	5063		2016-11-15	80
629595	5063		2016-11-15	84

#### Programs containing flagged data:

5063 - Distribution and Condition of Intertidal Eastern Oyster (Crassostrea virginica) Reefs in Apalachicola Bay Florida Based on High-Resolution Satellite Imagery

## Shell Height - (1.0000)

Table 30: Flagged Values - High Indicator Quantile:  ${\bf 118.395}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
426741	5073	FLAN60-E0804-T3410007-01Q	2014-08-04	133

#### Programs containing flagged data:

5073- Deepwater Horizon NRDA Oyster Technical Working Group Oyster Quadrat Abundance Sampling

### Shell Height - (NULL)

Table 31: Flagged Values - High Indicator Quantile:  ${\bf 151.23312}$ 

RowID	ProgramID	ProgramLocationID	SampleDate	ResultValue
505768	5072	8CI1	2012-06-22	154.08
464163	5072	8CI1	2013-06-05	156.81
459320	5072	8CI1	2013-06-11	169.00
482436	5072	8CI1	2013-06-12	161.95
773621	5072	8CI1	2013-06-17	151.87
11152	5072	8CI41	2011-06-15	155.00
11174	5072	8CI41	2011-06-17	169.18
18549	5072	8CI41	2011 - 06 - 17	151.26

#### Programs containing flagged data:

5072 - Prehistoric baseline reveals substantial decline of oyster reef condition in a Gulf of Mexico conservation priority area - archaeological oyster data

There are no High Quantile Flagged Values for Shell Height - (NA)

## QAQC Quantile Flag Check

- n\_high is the amount of data above the quantile value.
- n\_high\_flagged is the amount of data above the quantile value AND containing proper SEACAR-QAQCFlag of 17Q (ResultValue above quantile value).
- n\_low is the amount of data below the quantile value.
- n\_low\_flagged is the amount of data below the quantile value AND containing proper SEACAR-QAQCFlag of 16Q (Result Value below quantile value).
- If everything is in order, these values should be the same. Any discrepancies therein should be fastidiously noted.

ParameterName	n high	n high flagged	n low	n low flagged
Density	5	5	0	0
Number of Oysters Counted - Total - (.0625)	2	2	0	0
Number of Oysters Counted - Total - (.2500)	3	3	0	0
Number of Oysters Counted - Total - (.1000)	1	1	0	0
Number of Oysters Counted - Total - (1.0000)	1	1	0	0
Number of Oysters Counted - Total - (NULL)	1	1	0	0
Number of Oysters Counted - Live - (.2500)	3	3	0	0
Number of Oysters Counted - Live - (.0625)	2	2	0	0
Number of Oysters Counted - Live - (1.0000)	1	1	0	0
Number of Oysters Counted - Live - (.1000)	1	1	0	0
Number of Oysters Counted - Live - (NULL)	1	1	0	0
Number of Oysters Counted - Dead - (.2500)	2	2	0	0
Number of Oysters Counted - Dead - (.0625)	1	1	0	0
Number of Oysters Counted - Dead - (.1000)	1	1	0	0
Number of Oysters Counted - Dead - $(1.0000)$	1	1	1	0
Number of Oysters Counted - Dead - (NULL)	1	1	0	0
Reef Height	3	3	0	0
Percent Live	0	0	6	0
Shell Height - (.0625)	79	79	78	78
Shell Height - (.2500)	406	406	224	224
Shell Height - (.1000)	2	2	2	2
Shell Height - $(1.0000)$	1	1	0	0
Shell Height - (NULL)	8	8	8	8

 $Entries\ where\ Result Value\ is\ above\ or\ below\ quantile,\ but\ expected\ SEACAR\_QAQCF lag Code\ is\ not\ being\ applied$ 

Table 32: SEACAR QAQC Flag Code discrepancies

RowID	ProgramID	ParameterName	ResultValue	${\bf SEACAR\_QAQCFlagCode}$	q_subset
3612	972	Percent Live	0.3000	19Q	low
150135	972	Percent Live	0.3793	19Q	low
162652	972	Percent Live	0.2903	19Q	low
162653	972	Percent Live	0.3448	19Q	low
189664	972	Percent Live	0.3103	19Q	low
784476	972	Percent Live	0.0312	19Q	low
86145	5073	Number of Oysters Counted - Dead - $(1.0000)$	0.1000	19Q	low