

## Percentage of Non-Representative Bottom Trawl Survey Tows 2009-2023

### By Area

#### All Years Combined

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	2270	104	2374	4.38
SNE	2202	105	2307	4.55
Georges	2477	298	2775	10.74
GOM	1944	179	2123	8.43

### Totals

Total # Tows	9579
Total Non-Valid	686
% Non-Valid	7.16

#### Spring 2009

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	83	10	93	10.75
SNE	93	6	99	6.06
Georgs	96	19	115	16.52
GOM	85	11	96	11.46

Total # Tows	403
Total Non-Valid	46
% Non-Valid	11.41

#### Fall 2009

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	86	10	96	10.42
SNE	91	8	99	8.08
Georgs	87	19	106	17.92
GOM	65	10	75	13.33

Total # Tows	376
Total Non-Valid	47
% Non-Valid	12.50

#### Spring 2010

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	100	8	108	7.41
SNE	94	5	99	5.05
Georgs	91	12	103	11.65
GOM	84	7	91	7.69

Total # Tows	401
Total Non-Valid	32
% Non-Valid	7.98

#### Fall 2010

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	94	10	104	9.62
SNE	92	8	100	8.00
Georges	93	11	104	10.58
GOM	55	9	64	14.06

Total # Tows	372
Total Non-Valid	38
% Non-Valid	10.22

### By Area

### Totals

### Spring 2011

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	89	7	96	7.29
SNE	87	3	90	3.33
Georges	90	16	106	15.09
GOM	72	8	80	10.00

Total # Tows	372
Total Non-Valid	34
% Non-Valid	9.14

### Fall 2011

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	95	2	97	2.06
SNE	82	6	88	6.82
Georges	89	12	101	11.88
GOM	59	12	71	16.90

Total # Tows	357
Total Non-Valid	32
% Non-Valid	8.96

### Spring 2012

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	79	5	84	5.95
SNE	84	3	87	3.45
Georges	93	18	111	16.22
GOM	95	8	103	7.77

Total # Tows	385
Total Non-Valid	34
% Non-Valid	8.83

### Fall 2012

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	96	1	97	1.03
SNE	88	2	90	2.22
Georges	97	9	106	8.49
GOM	82	9	91	9.89

Total # Tows	384
Total Non-Valid	21
% Non-Valid	5.47

### Spring 2013

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	97	2	99	2.02
SNE	85	1	86	1.16
Georges	106	15	121	12.40
GOM	89	8	97	8.25

Total # Tows	403
Total Non-Valid	26
% Non-Valid	6.45

### Fall 2013

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	97	3	100	3.00
SNE	88	2	90	2.22
Georges	102	9	111	8.11
GOM	77	7	84	8.33

Total # Tows	385
Total Non-Valid	21
% Non-Valid	5.45

### By Area

### Totals

### Spring 2014

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	34	0	34	0.00
SNE	82	5	87	5.75
Georges	88	14	102	13.73
GOM	81	5	86	5.81

Total # Tows	309
Total Non-Valid	24
% Non-Valid	7.77

### Fall 2014

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	95	2	97	2.06
SNE	88	8	96	8.33
Georges	98	12	110	10.91
GOM	78	4	82	4.88

Total # Tows	385
Total Non-Valid	26
% Non-Valid	6.75

### Spring 2015

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	94	4	98	4.08
SNE	87	4	91	4.40
Georges	99	8	107	7.48
GOM	88	14	102	13.73

Total # Tows	398
Total Non-Valid	30
% Non-Valid	7.54

### Fall 2015

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	94	5	99	5.05
SNE	90	4	94	4.26
Georges	96	15	111	13.51
GOM	87	7	94	7.45

Total # Tows	398
Total Non-Valid	31
% Non-Valid	7.79

### Spring 2016

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	83	4	87	4.60
SNE	84	3	87	3.45
Georges	93	12	105	11.43
GOM	91	5	96	5.21

Total # Tows	375
Total Non-Valid	24
% Non-Valid	6.40

### Fall 2016

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	96	1	97	1.03
SNE	88	3	91	3.30
Georges	99	11	110	10.00
GOM	90	8	98	8.16

Total # Tows	396
Total Non-Valid	23
% Non-Valid	5.81

### By Area

### Totals

### Spring 2017

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	92	3	95	3.16
SNE	89	6	95	6.32
Georges	100	11	111	9.91
GOM	72	7	79	8.86

Total # Tows	380
Total Non-Valid	27
% Non-Valid	7.11

### Fall 2017

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	0			
SNE	0			
Georges	69	10	79	12.66
GOM	59	4	63	6.35

Total # Tows	142
Total Non-Valid	14
% Non-Valid	9.86

### Spring 2018

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	73	5	78	6.41
SNE	74	2	76	2.63
Georges	63	5	68	7.35
GOM	44	3	47	6.38

Total # Tows	269
Total Non-Valid	15
% Non-Valid	5.58

### Fall 2018

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	82	2	84	2.38
SNE	85	6	91	6.59
Georges	89	7	96	7.29
GOM	49	4	53	7.55

Total # Tows	324
Total Non-Valid	19
% Non-Valid	5.86

### Spring 2019

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	89	4	93	4.30
SNE	86	5	91	5.49
Georges	97	13	110	11.82
GOM	84	7	91	7.69

Total # Tows	385
Total Non-Valid	29
% Non-Valid	7.53

**By Area**

**Totals**

**Fall 2019**

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	94	1	95	1.05
SNE	92	4	96	4.17
Georges	91	9	100	9.00
GOM	70	9	79	11.39

Total # Tows	370
Total Non-Valid	23
% Non-Valid	6.22

**Spring 2020**

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	95	5	100	5.00
SNE	37	2	39	5.13
Georges	0			
GOM	0			

Total # Tows	139
Total Non-Valid	7
% Non-Valid	5.04

**Fall 2020**

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	0			
SNE	0			
Georges	0			
GOM	0			

Total # Tows	0
Total Non-Valid	
% Non-Valid	

**Spring 2021**

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	54	1	55	1.82
SNE	79	4	83	4.82
Georges	94	5	99	5.05
GOM	86	3	89	3.37

Total # Tows	326
Total Non-Valid	13
% Non-Valid	3.99

**Fall 2021**

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	96	5	101	4.95
SNE	85	2	87	2.30
Georges	102	8	110	7.27
GOM	70	4	74	5.41

Total # Tows	372
Total Non-Valid	19
% Non-Valid	5.11

**By Area****Totals**

### Spring 2022

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	91	1	92	1.09
SNE	90	1	91	1.10
Georges	108	6	114	5.26
GOM	75	3	78	3.85

Total # Tows	375
Total Non-Valid	11
% Non-Valid	2.93

### Fall 2022

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	92	3	95	3.16
SNE	82	2	84	2.38
Georges	77	5	82	6.10
GOM	57	3	60	5.00

Total # Tows	321
Total Non-Valid	13
% Non-Valid	4.05

### Spring 2023

Area	Valid Tows	Non-Valid Tows	Total Tows	% Non-Valid
Mid-Atl	0			
SNE	0			
Georges	70	7	77	9.09
GOM	0			

Total # Tows	77
Total Non-Valid	7
% Non-Valid	9.09