Co-occurrence of Atlantic surfclams (*Spisula solidissima*) and ocean quahogs (*Arctica islandica*)

Presentation to MAFMC

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Data collection and analysis in collaboration with:

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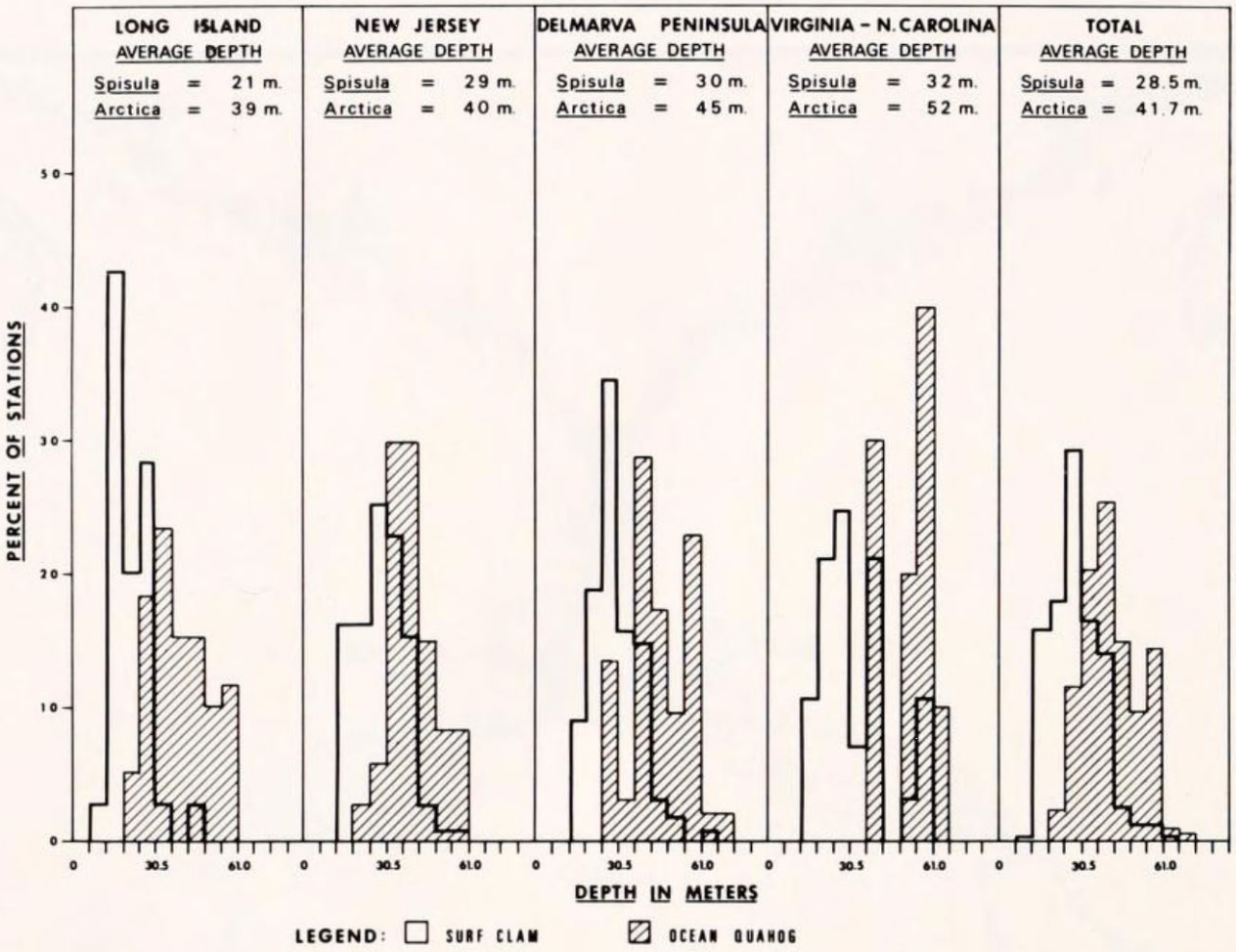
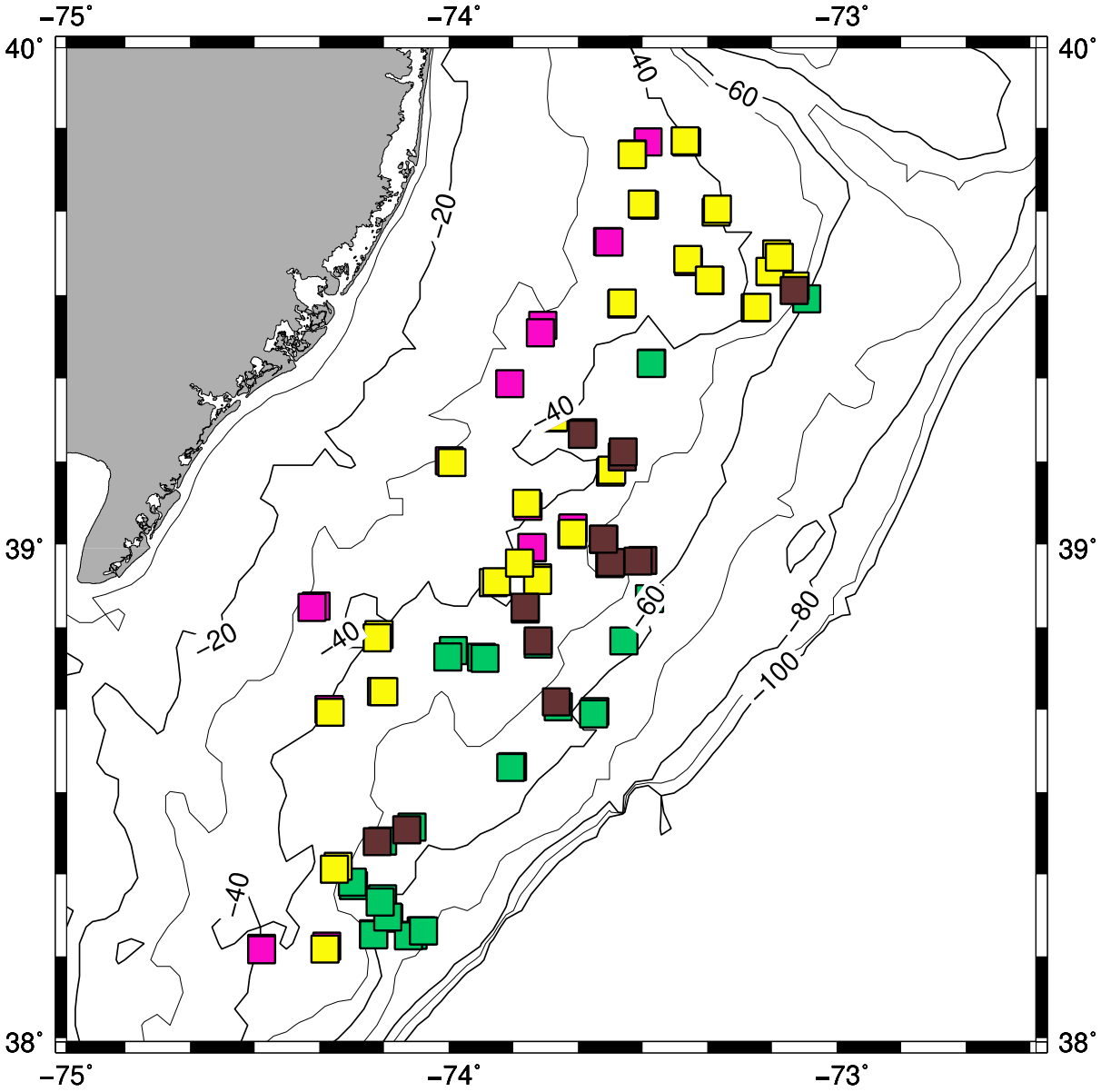


FIG. 3. *Comparative distribution of surf clams and ocean quahogs, by area and depth, in the Middle Atlantic Bight. (30.5 m = 100 ft).*

Source: Merrill, A.S. & J.W. Ropes. 1969. The general distribution of the surf clam and ocean quahog. *Proc. Natl. Shellfish. Assoc*. 59:40-45.



Fall 2021 survey

SC: surfclam

OQ: ocean quahog

Pink: >96% SC

Yellow: SC in majority but OQ between 4 and 46%

Brown: OQ in majority but SC between 4 and 46%

Green: >96% OQ

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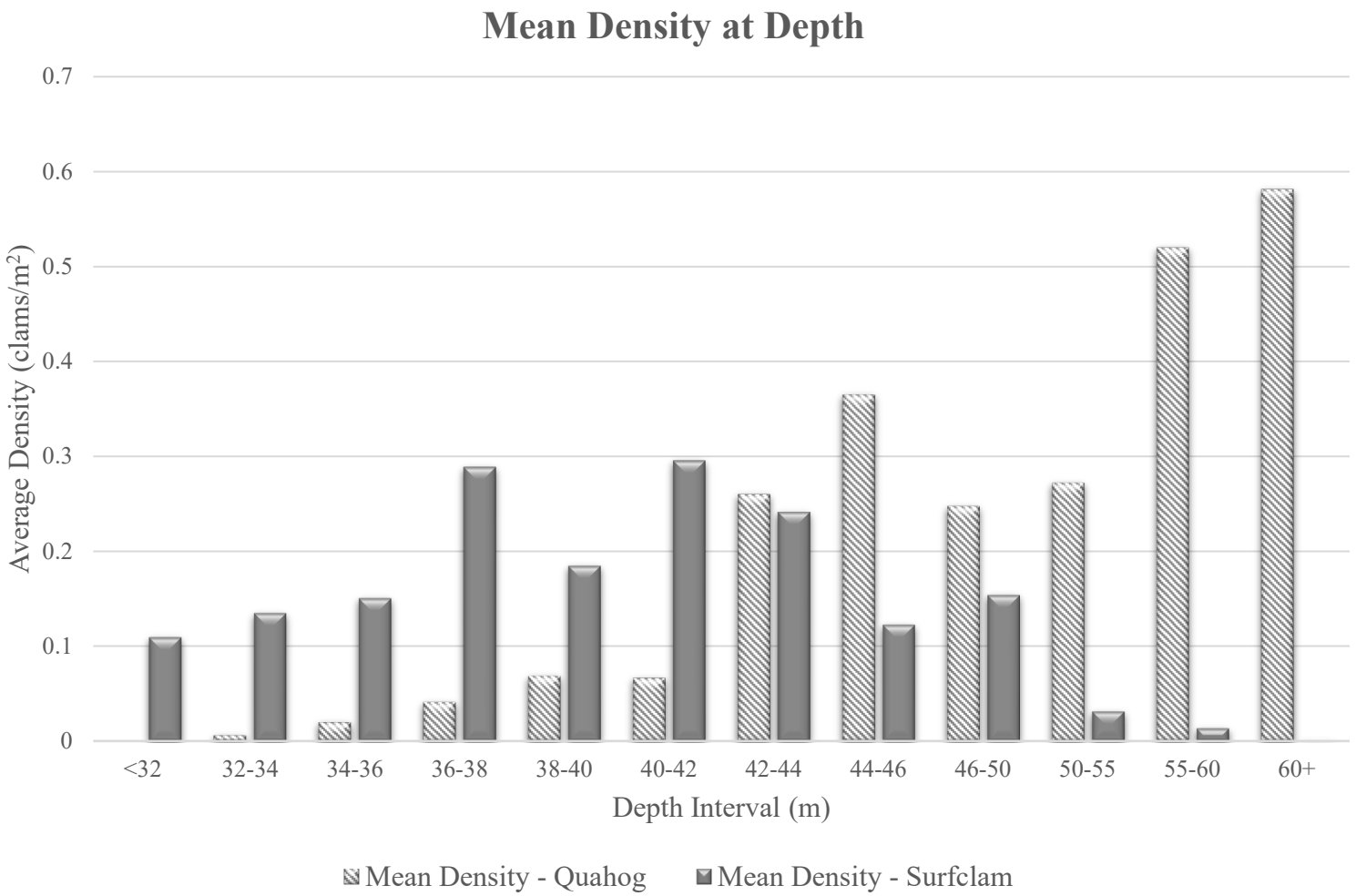
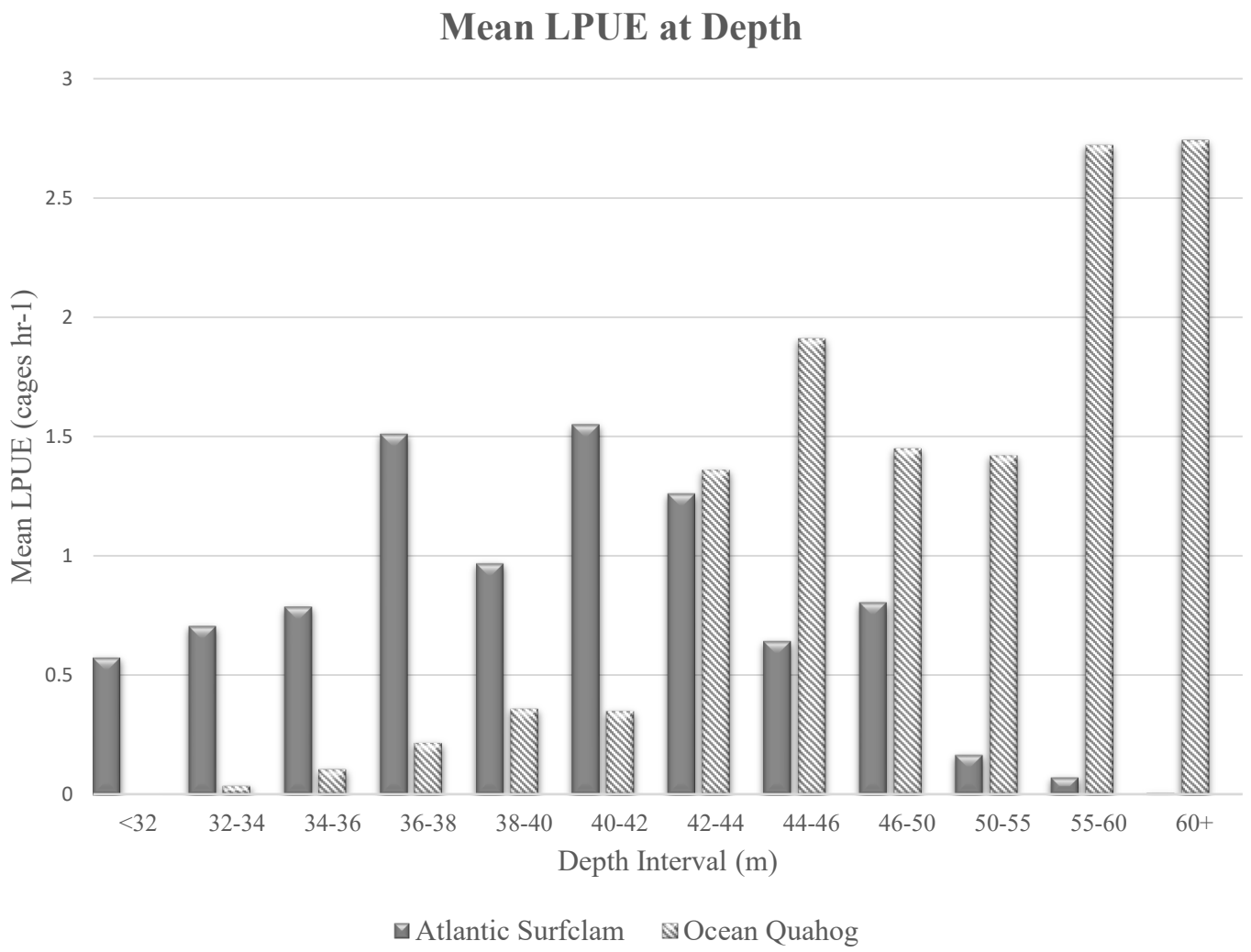

Mean Density at Depth
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Average Density (clams/m2)
<32
32-34
34-36
36-38
38-40
40-42
42-44
44-46
46-50
50-55
55-60
60+
Depth Interval (m)
Mean Density - Quahog
Mean Density - Surfclam



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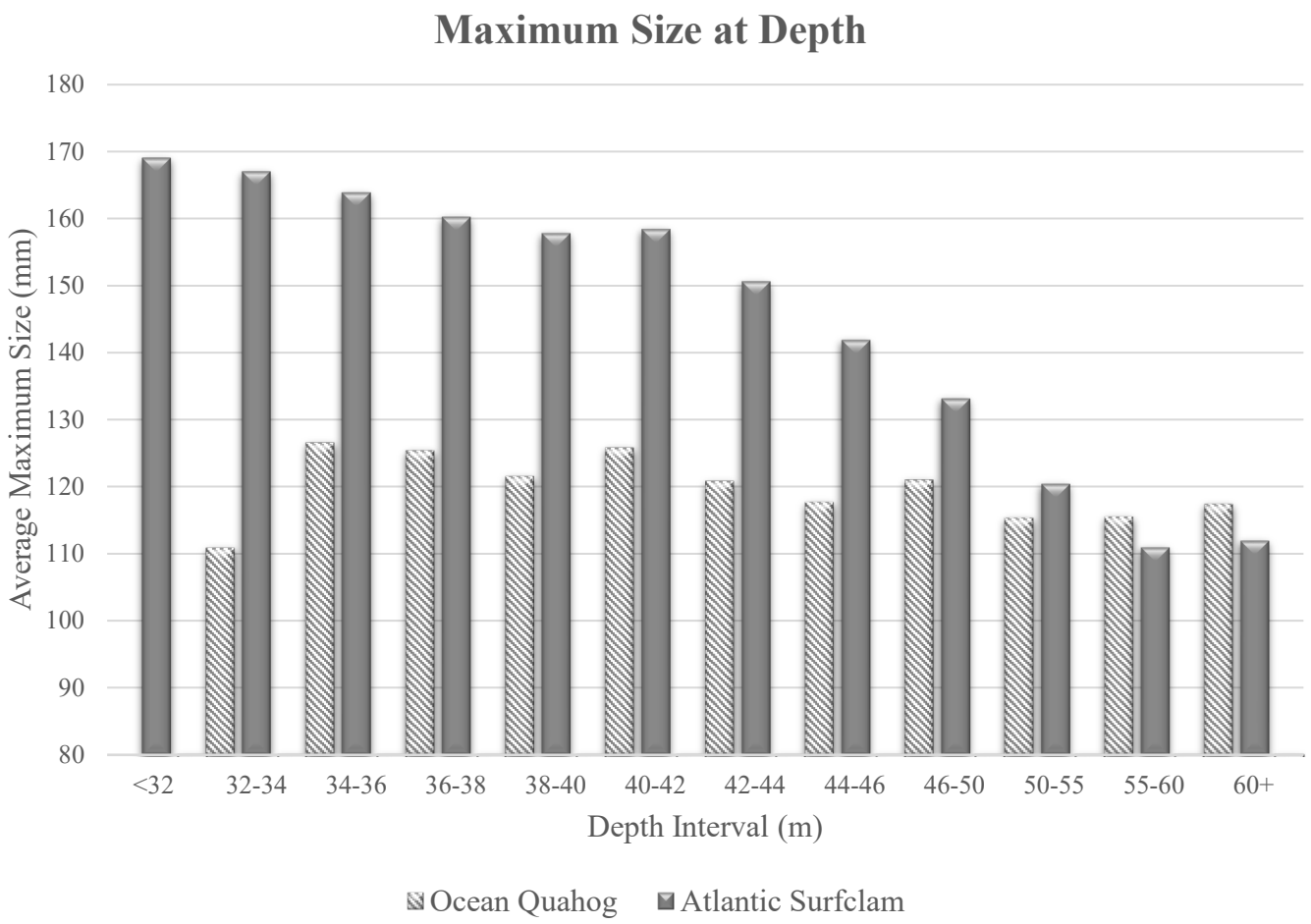
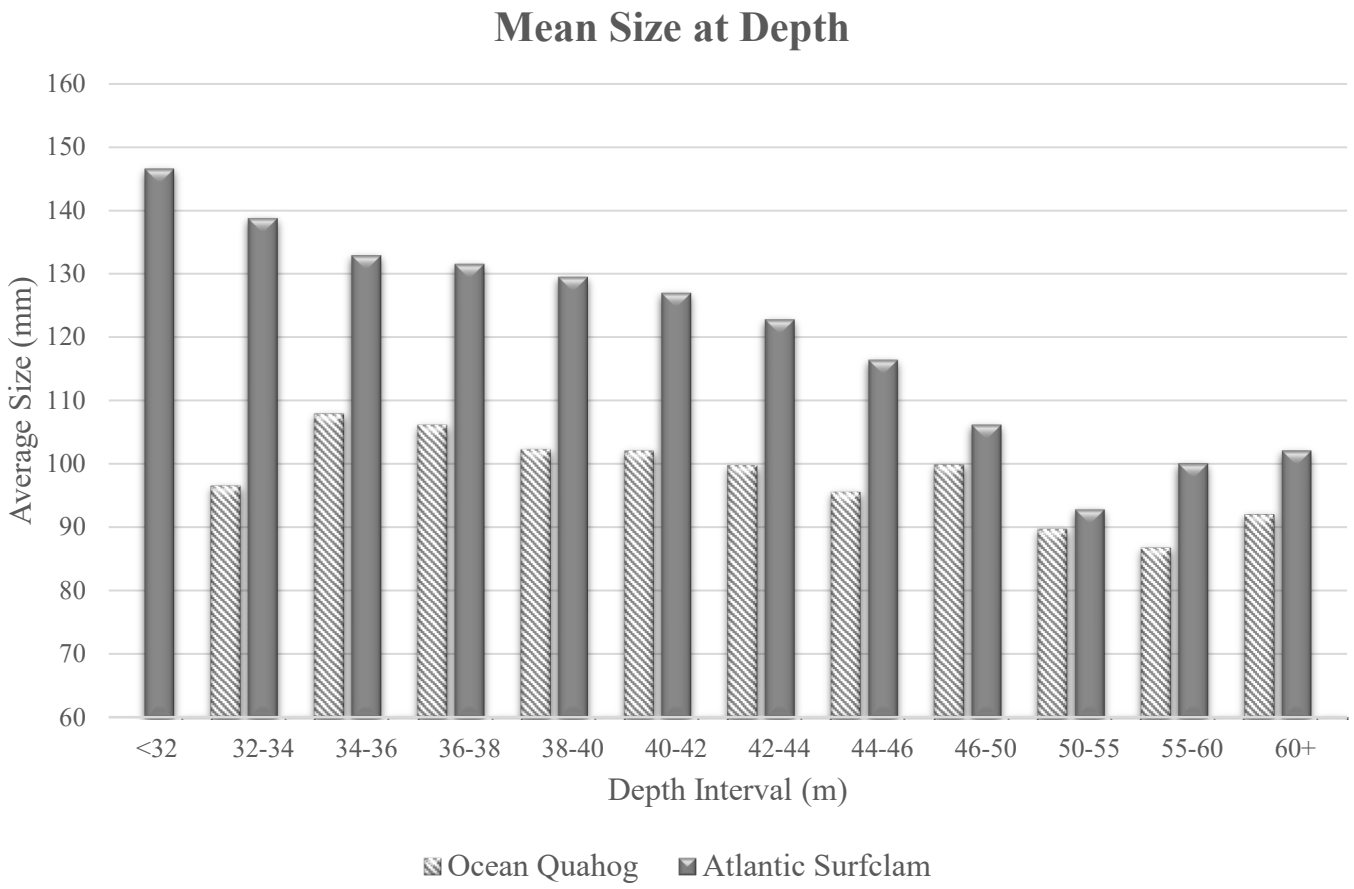

Maximum Size at Depth
180
170
160
150
140
130
120
110
100
90
80
Average Maximum Size (mm)
<32
32-34
34-36
36-38
38-40
40-42
42-44
44-46
46-50
50-55
55-60
60+
Depth Interval (m)
Ocean Quahog
Atlantic Surfclam


Mean Size at Depth
160
150
140
130
120
110
100
90
80
70
60
Average Size (mm)
<32
32-34
34-36
36-38
38-40
40-42
42-44
44-46
46-50
50-55
55-60
60+
Depth Interval (m)
Ocean Quahog
Atlantic Surfclam

Summary:

- Surfclams and ocean quahogs now exhibit substantial overlap in the MAB region
- Surfclams dominant <40m
- Ocean quahogs dominant >60m
- Overlap most prominent in the 40-55m depth range
- Desired CPUE for surfclams in particular is in the region of overlap
- This will not change in near future, indeed all data suggest this will persist
- Thus we arrive at a discussion of mixed species in catches