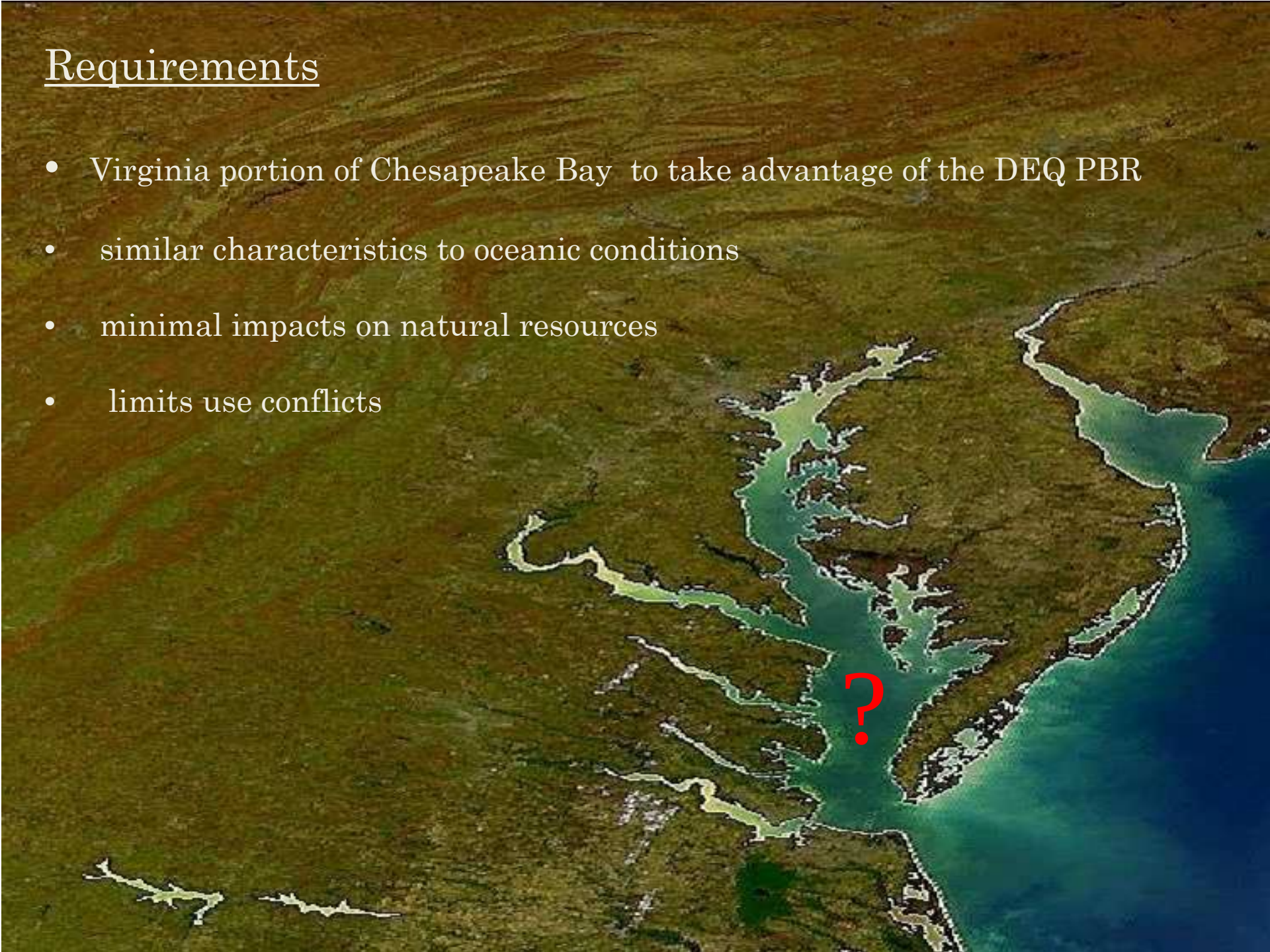
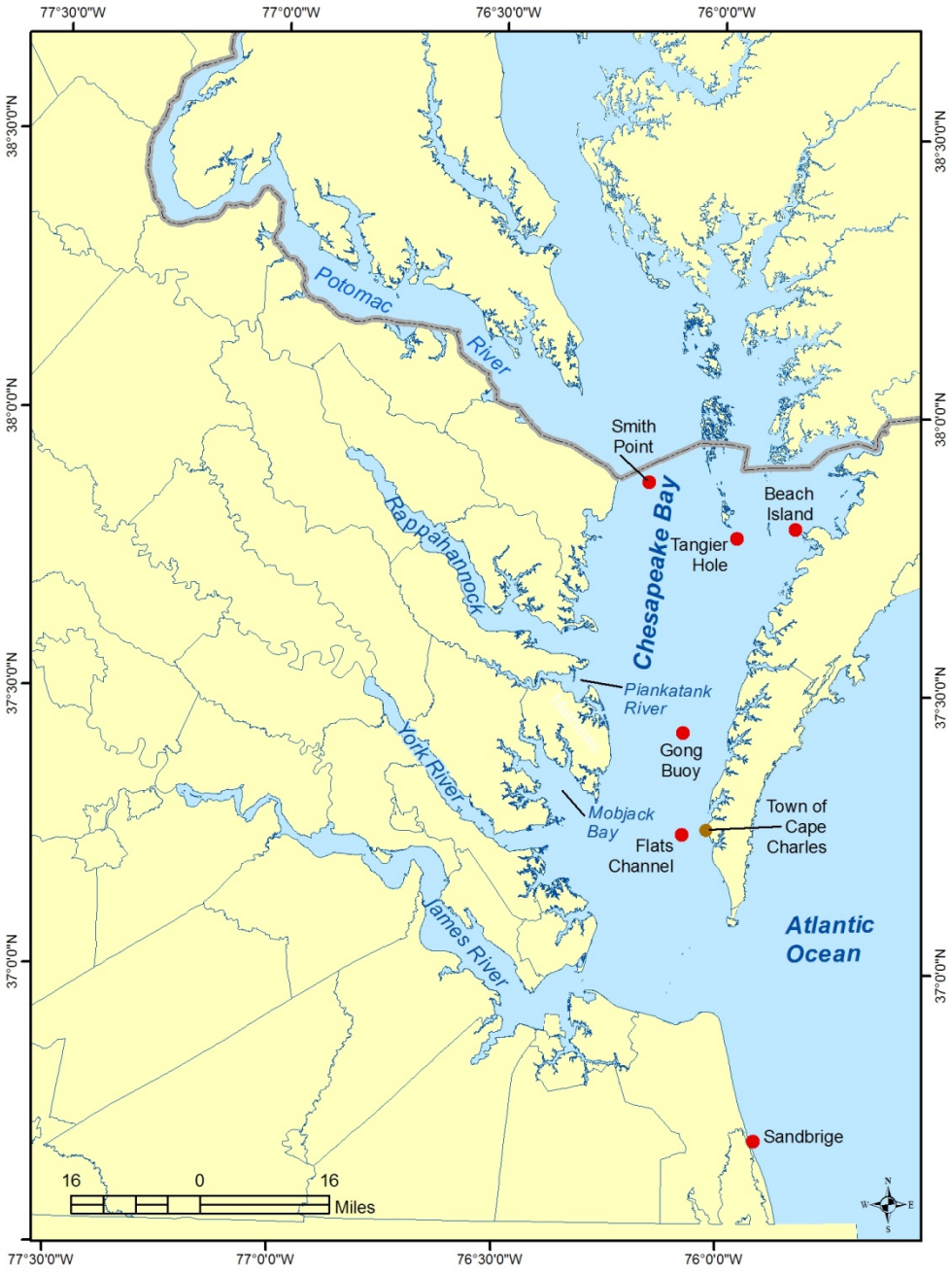
Wind Turbine Siting in Chesapeake Bay: VIMS Experience

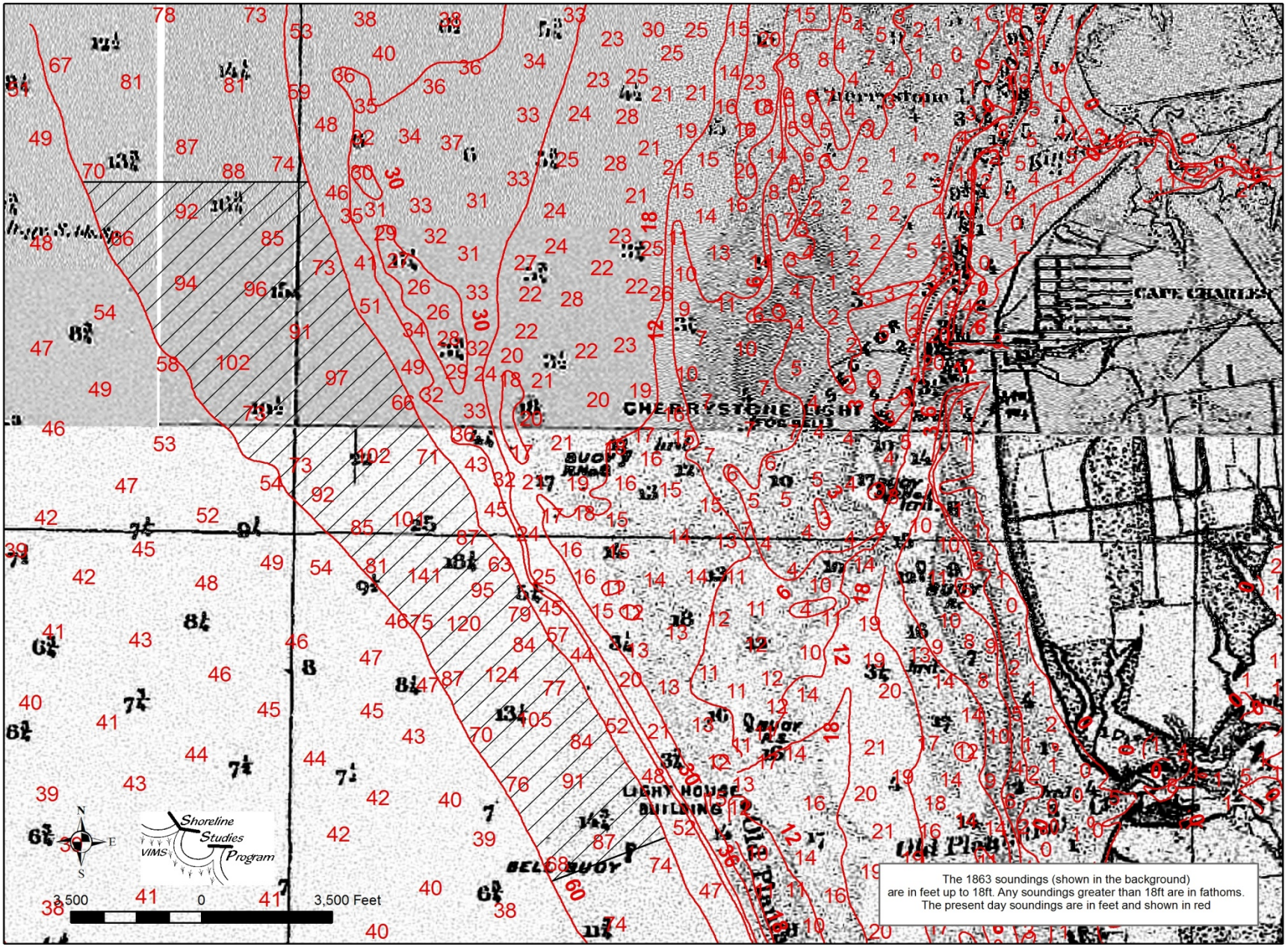
Not only applied science, but restructuring for future industry partnerships

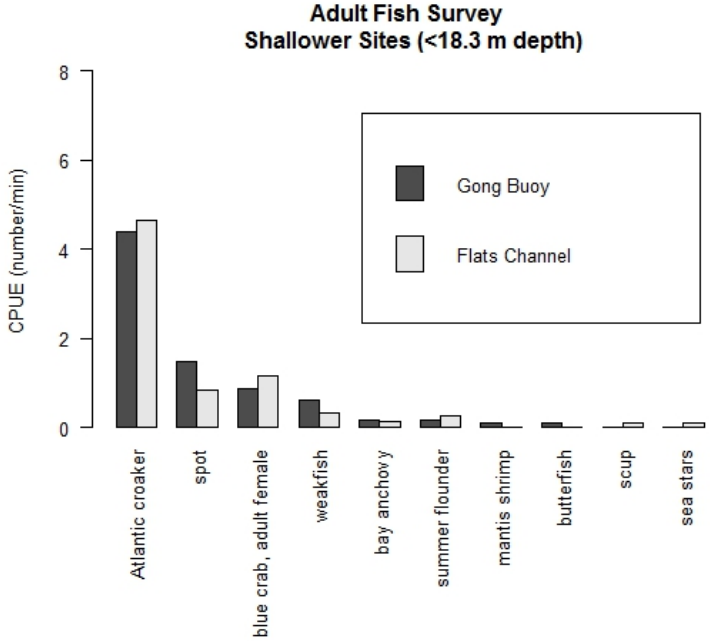
Requirements

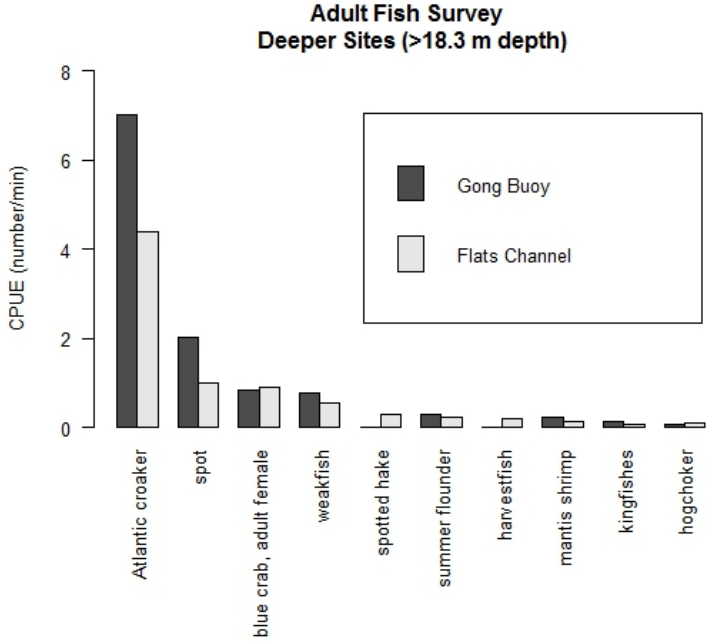
- Virginia portion of Chesapeake Bay to take advantage of the DEQ PBR
- similar characteristics to oceanic conditions
- minimal impacts on natural resources
- limits use conflicts

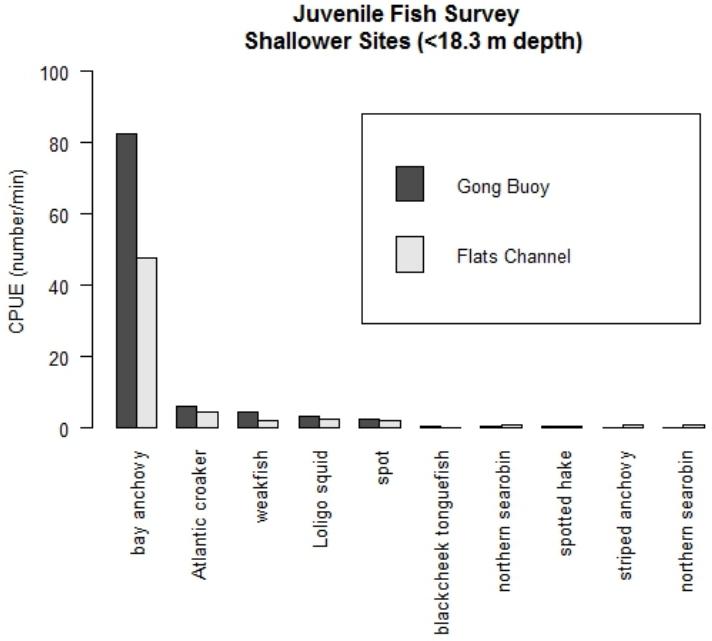


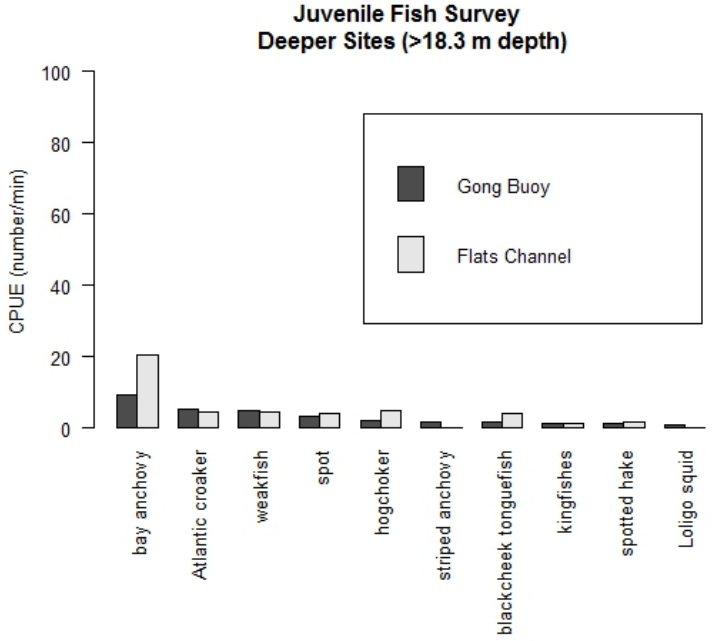

77°30'0"W
77°0'0"W
76°30'0"W
76°0'0"W
38°30'0"N
38°0'0"N
37°30'0"N
37°0'0"N
Potomac River
Rappahannock
Chesapeake Bay
Smith Point
Beach Island
Tangier Hole
Piankatank River
Gong Buoy
York River
Mobjack Bay
Flats Channel
Town of Cape Charles
Atlantic Ocean
James River
Sandbrige
16
0
16
Miles
N
W
E
S


CAPE CHARLES
CHERRYSTONE LIGHT
LIGHT HOUSE BUILDING
Old Plant
Shoreline Studies Program
VIMS
3,500 0 3,500 Feet
The 1863 soundings (shown in the background) are in feet up to 18ft. Any soundings greater than 18ft are in fathoms. The present day soundings are in feet and shown in red


Adult Fish Survey
Shallower Sites (<18.3 m depth)
CPUE (number/min)
0
2
4
6
8
Gong Buoy
Flats Channel
Atlantic croaker
spot
blue crab, adult female
weakfish
bay anchovy
summer flounder
mantis shrimp
butterfish
scup
sea stars


Adult Fish Survey
Deeper Sites (>18.3 m depth)
CPUE (number/min)
0
2
4
6
8
Gong Buoy
Flats Channel
Atlantic croaker
spot
blue crab, adult female
weakfish
spotted hake
summer flounder
harvestfish
mantis shrimp
kingfishes
hogchoker


Juvenile Fish Survey
Shallower Sites (<18.3 m depth)
CPUE (number/min)
0
20
40
60
80
100
Gong Buoy
Flats Channel
bay anchovy
Atlantic croaker
weakfish
Loligo squid
spot
blackcheek tonguefish
northern searobin
spotted hake
striped anchovy
northern searobin


Juvenile Fish Survey
Deeper Sites (>18.3 m depth)
CPUE (number/min)
0
20
40
60
80
100
Gong Buoy
Flats Channel
bay anchovy
Atlantic croaker
weakfish
spot
hogchoker
striped anchovy
blackcheek tonguefish
kingfishes
spotted hake
Loligo squid

PA

CAMST

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