



**The Delaware Bay shell planting program after 3 years:
recruitment enhancement and carbonate budget.**

Kathryn Ashton-Alcox

Eric Powell

Jason Hearon

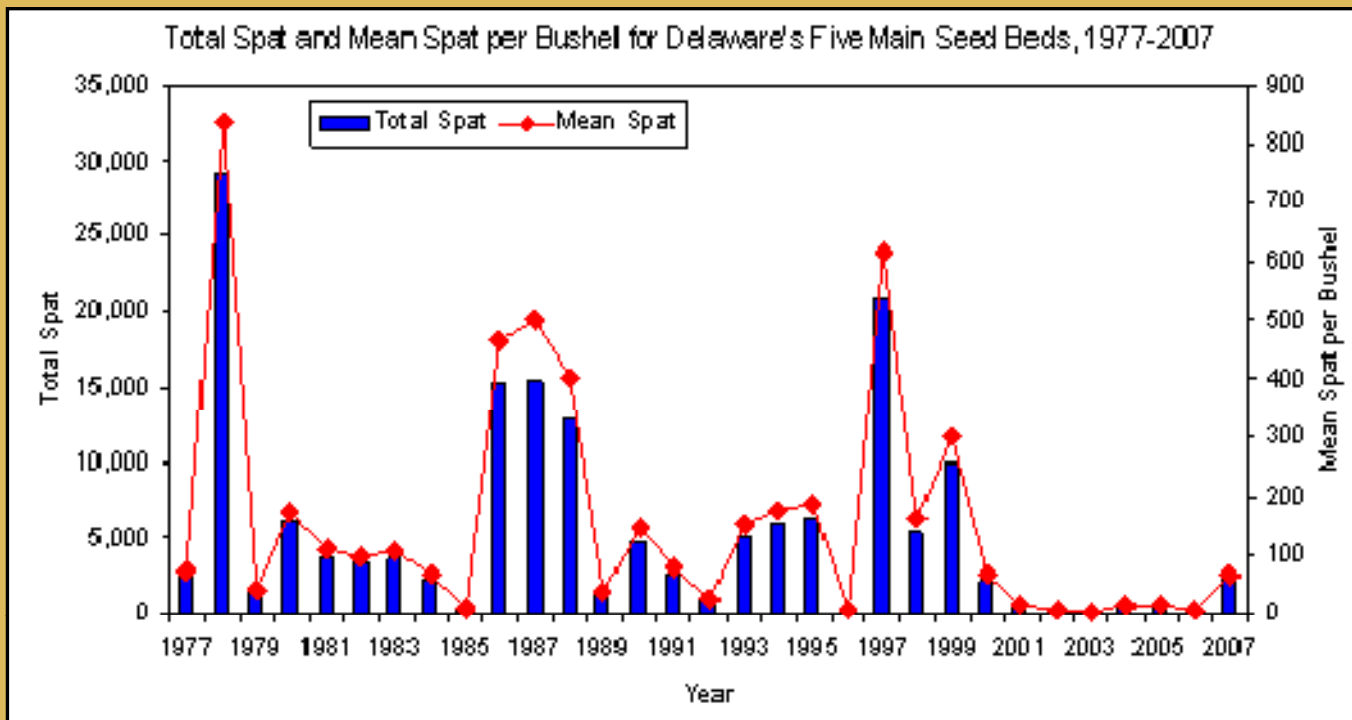
Russell Babb

Gulnihal Ozbay

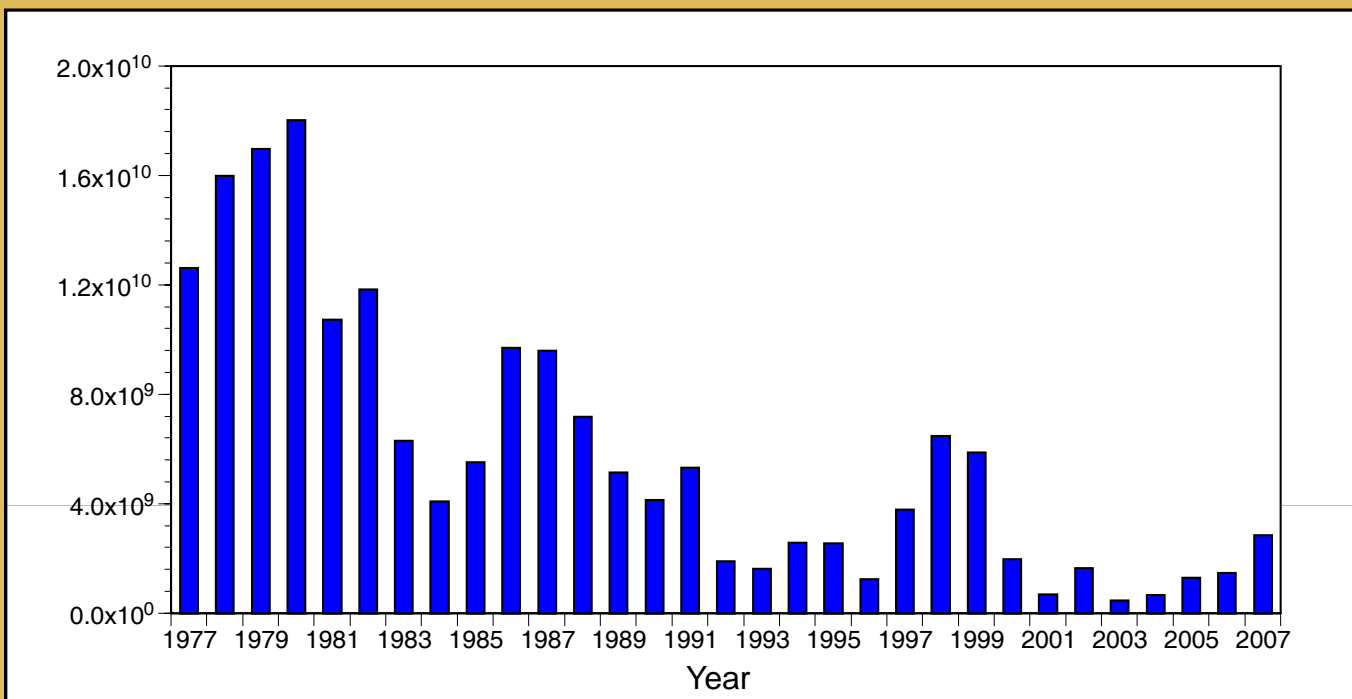
Richard Cole

Photo courtesy of NJDEP

Spat in Delaware

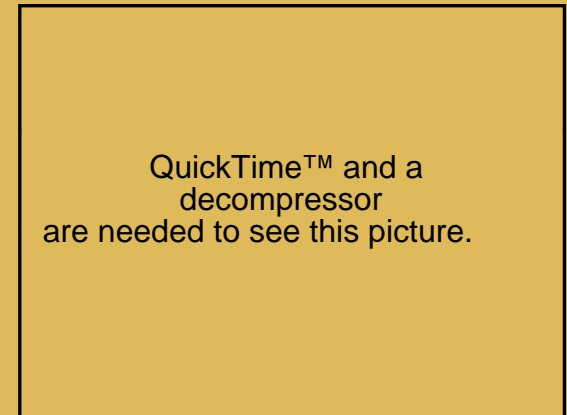
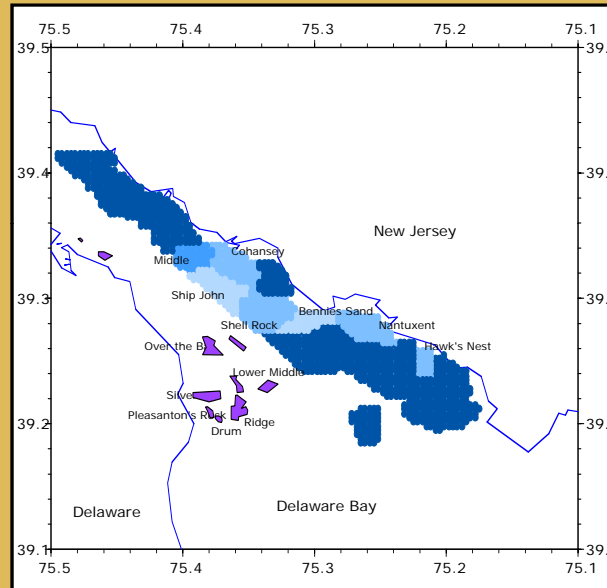


Spat in New Jersey

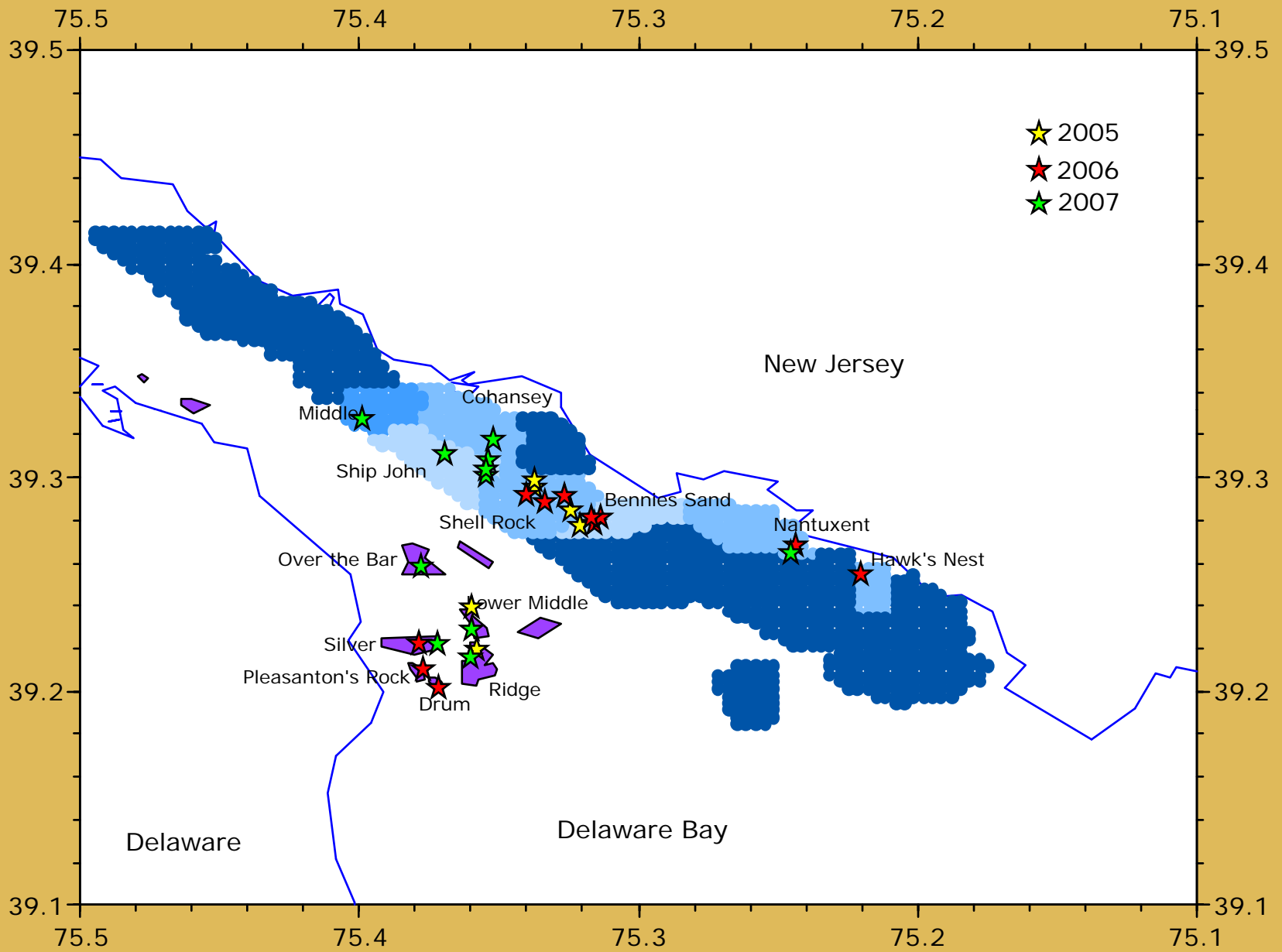




Photos courtesy of DNREC



Photos courtesy of NJDEP



Shell Plant Material



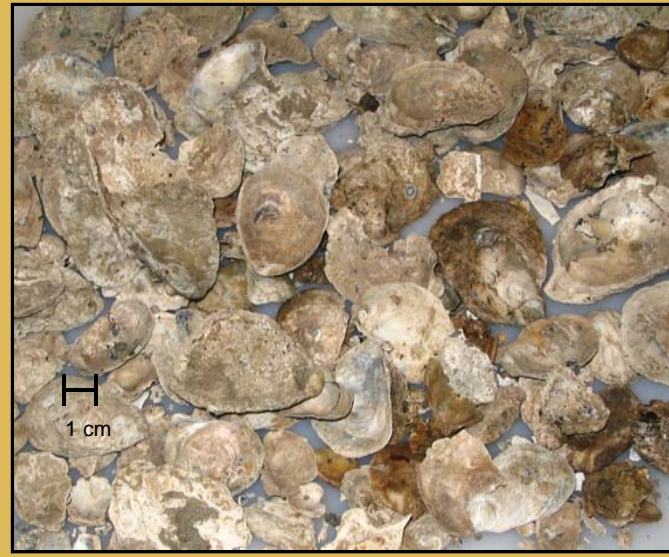
Maryland Mined Oyster Shell



Ocean Quahog Shell



Surf Clam Shell



Native Oyster Cultch

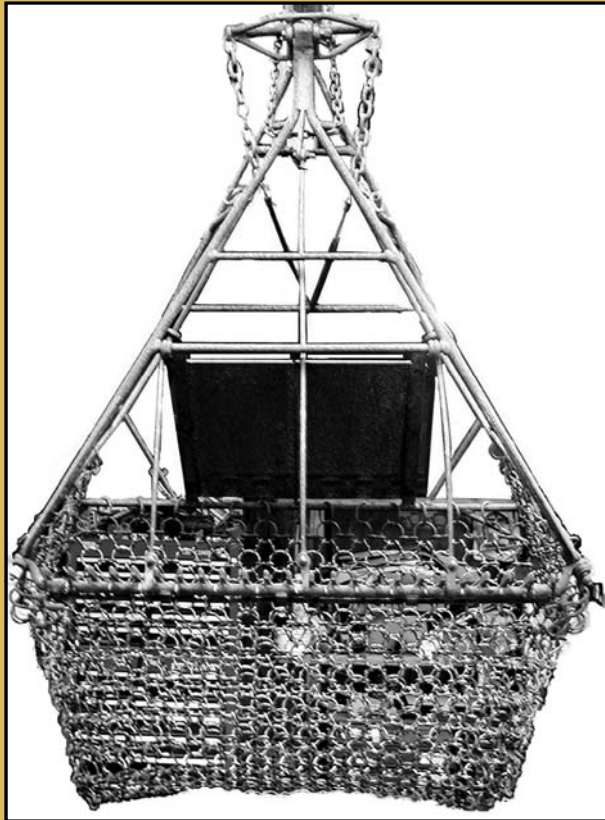


Photo courtesy of DNREC

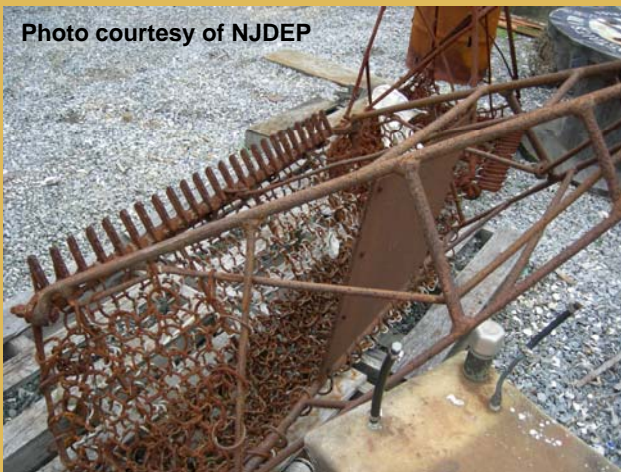


Photo courtesy of NJDEP





Photo courtesy of DNREC



Photo courtesy of NJDEP

Efficiency of Dredge vs Diver

	New Jersey	Delaware
Oyster	20.5%	19.8%
Native	10.8%	10.1%
Mined	-	1.3%
Surf Clam	0.8%	-
Quahog	0.6%	-

Efficiency of Open vs Lined Dredge

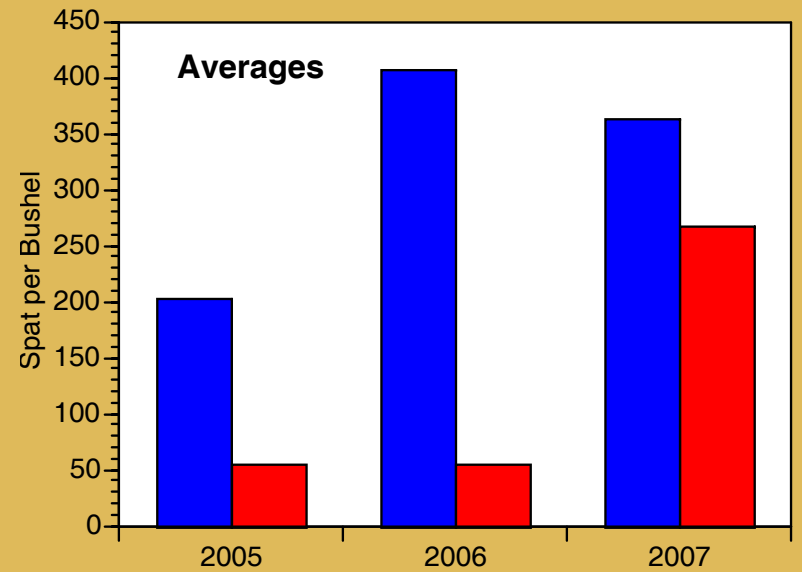
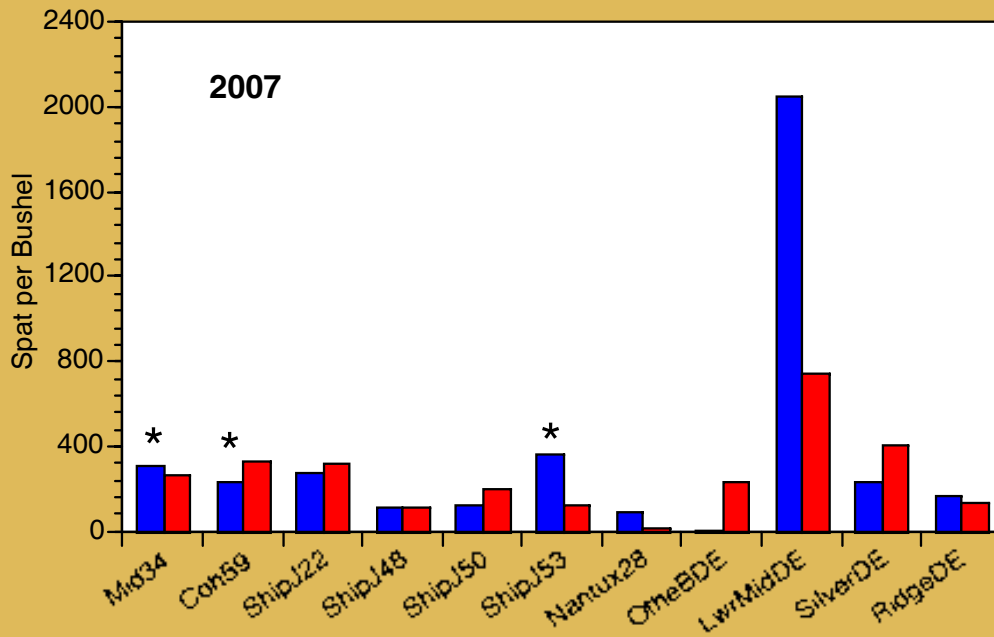
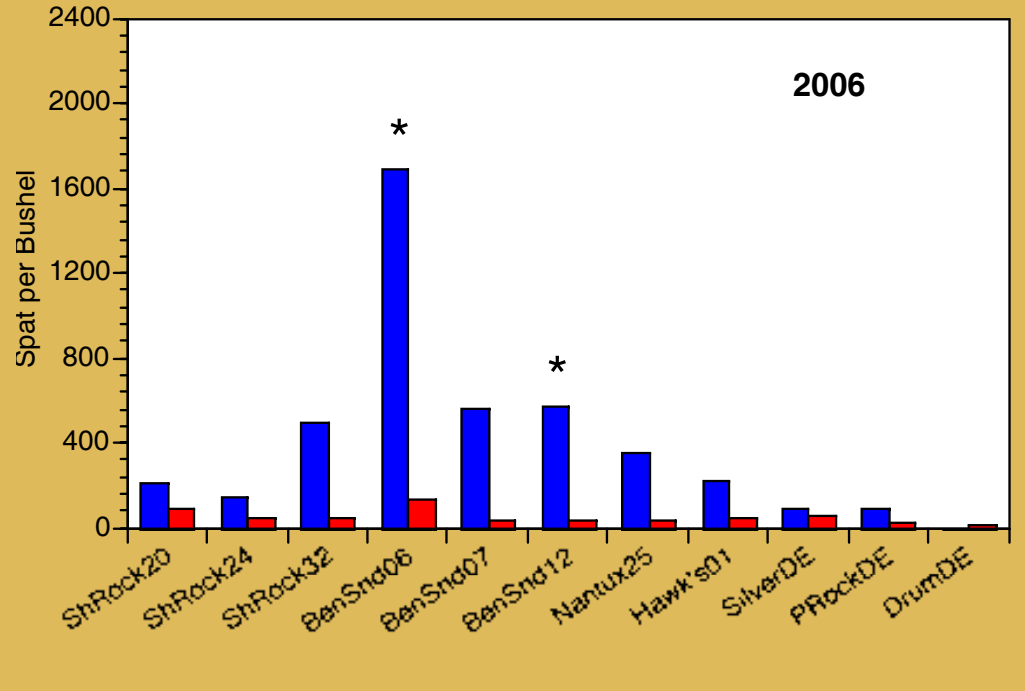
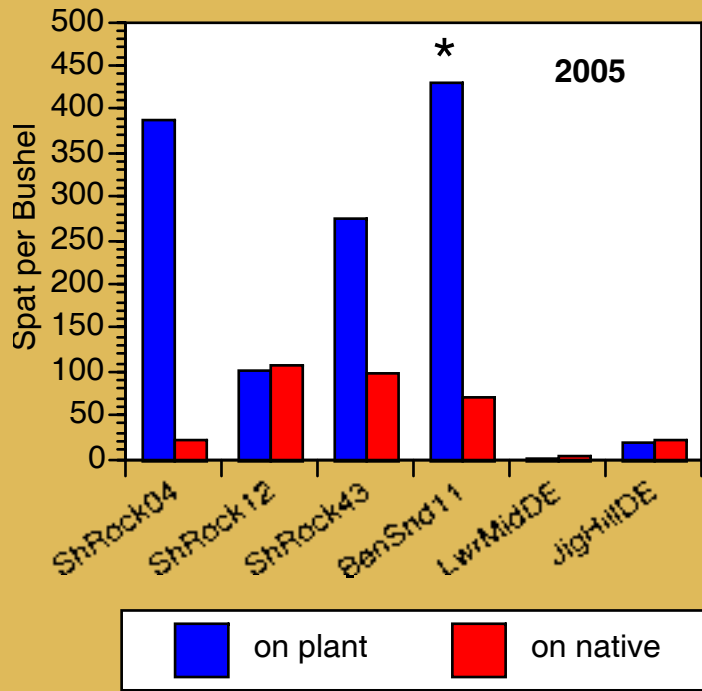
Surf Clam: 33%
Quahog: 22%

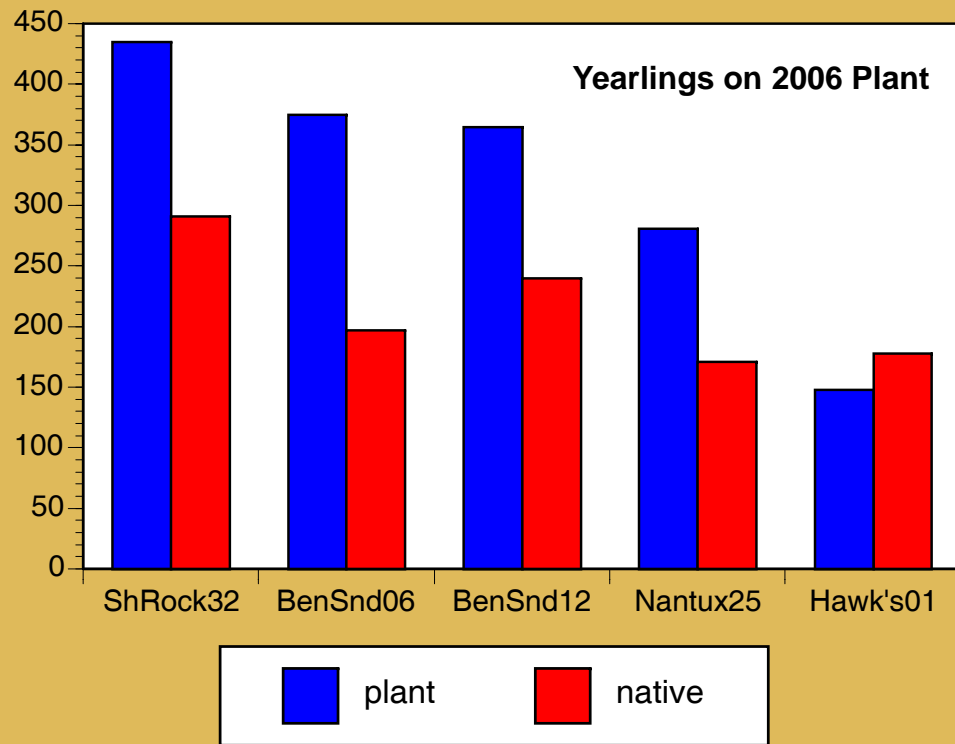


Photo courtesy of DNREC

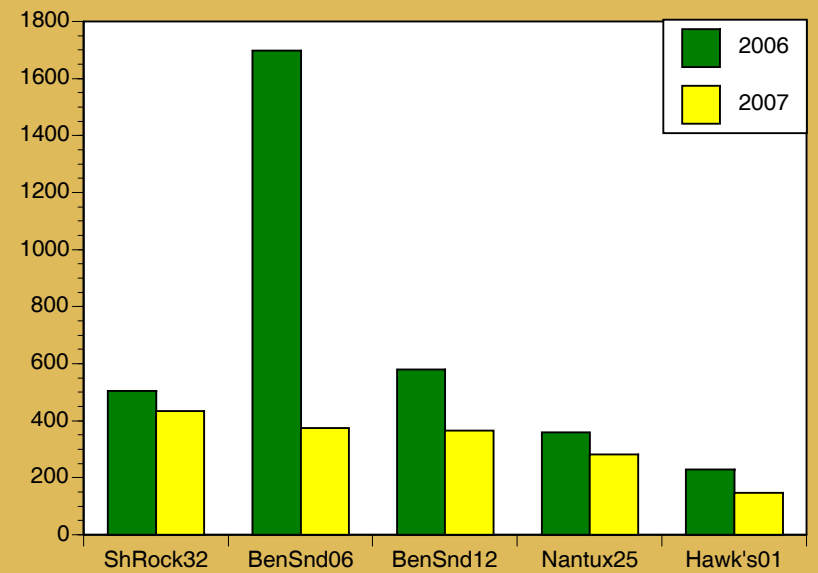
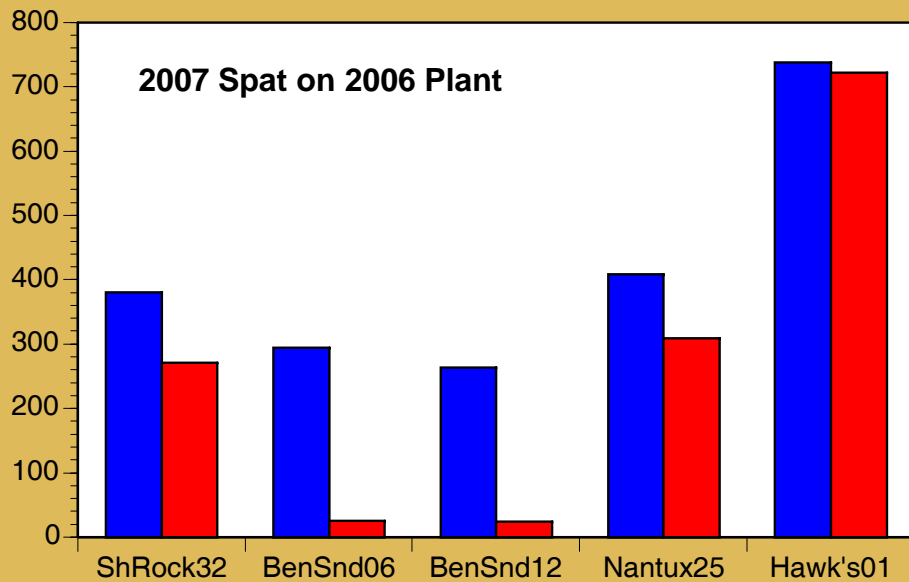




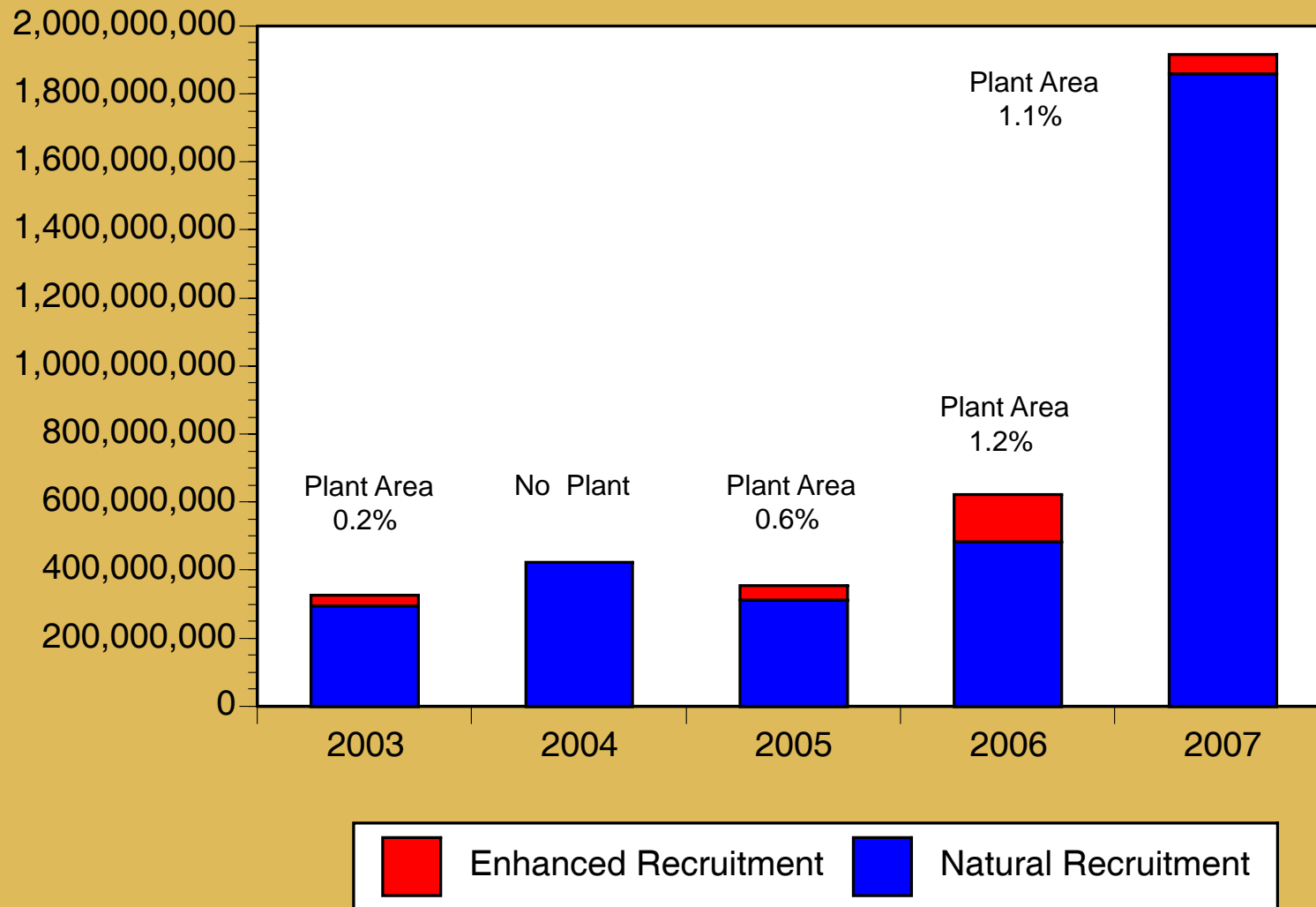




Survival



Overall Recruitment Enhancement on NJ Beds



Bushels Planted*

Projected Yield**

2005	63,876	>53,000 bushels
2006	474,845	>166,000 bushels
2007	646,519	>373,000 bushels

*clam shell only

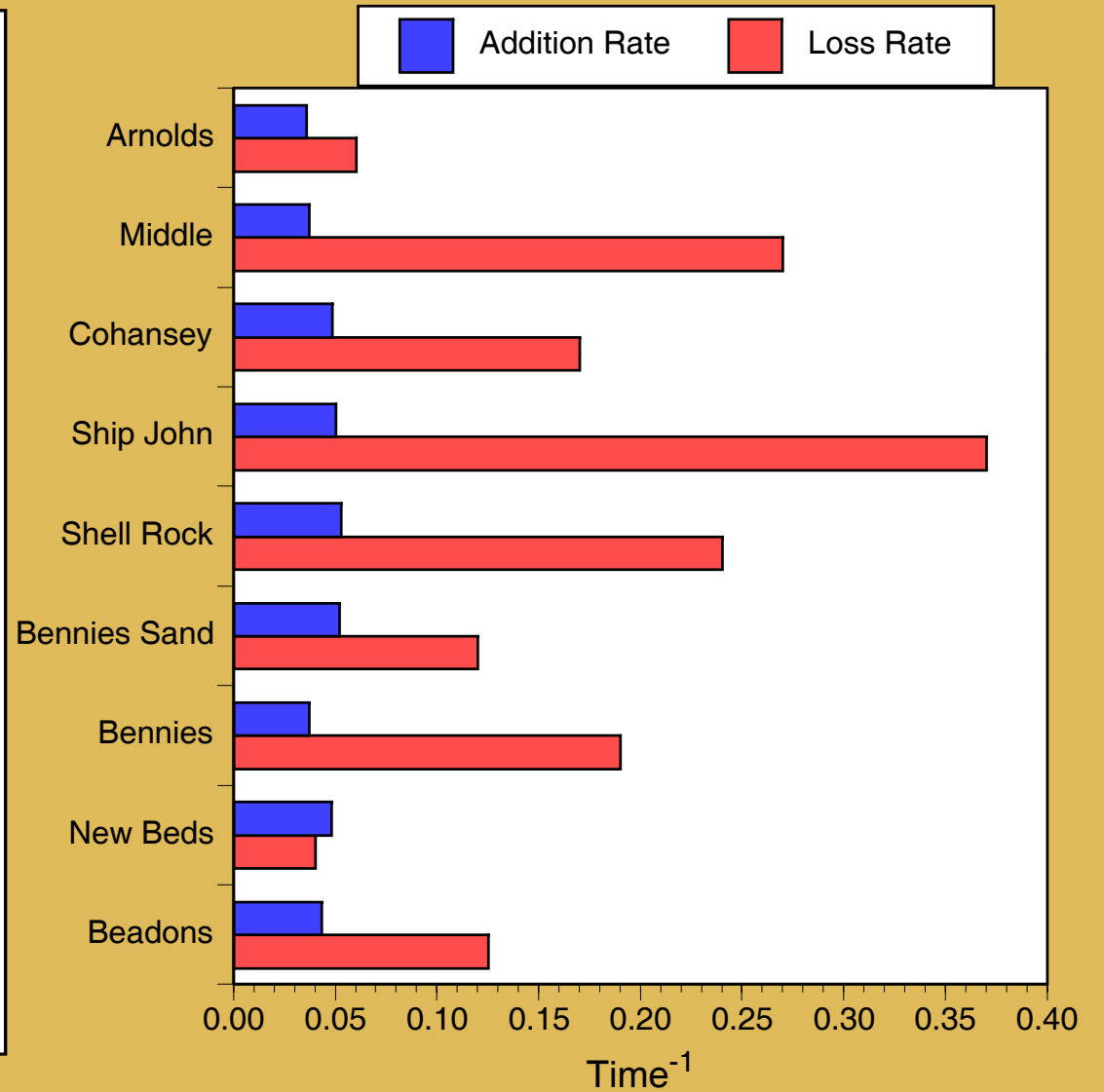
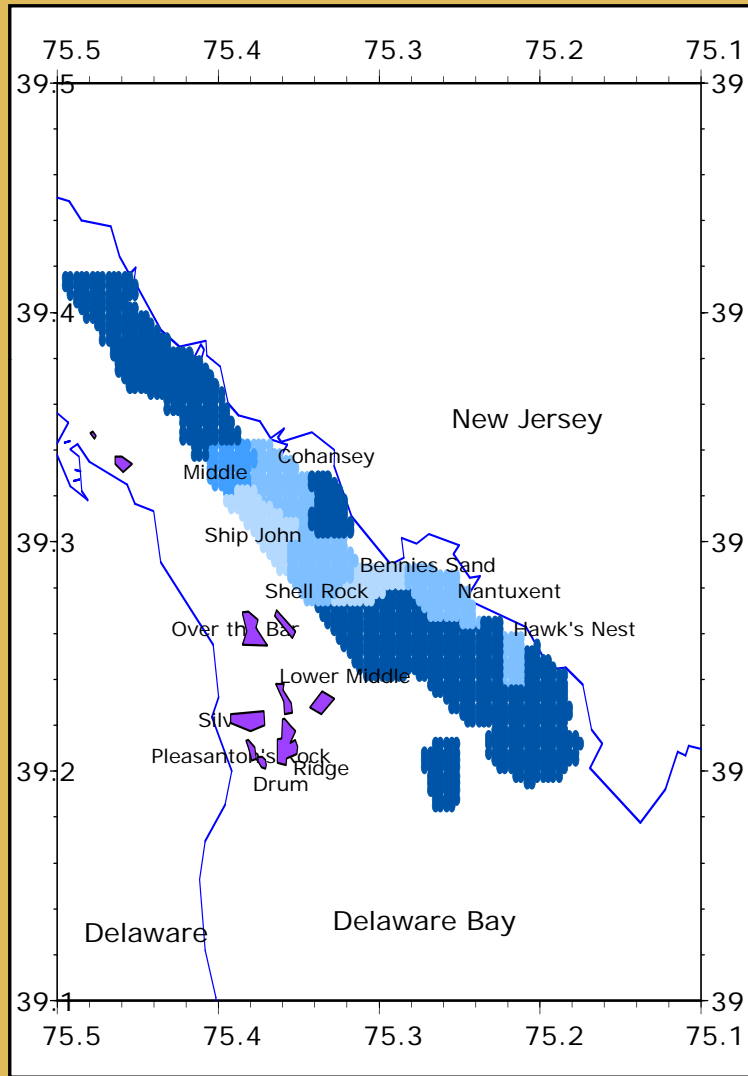
**marketable bushels from initial year's set



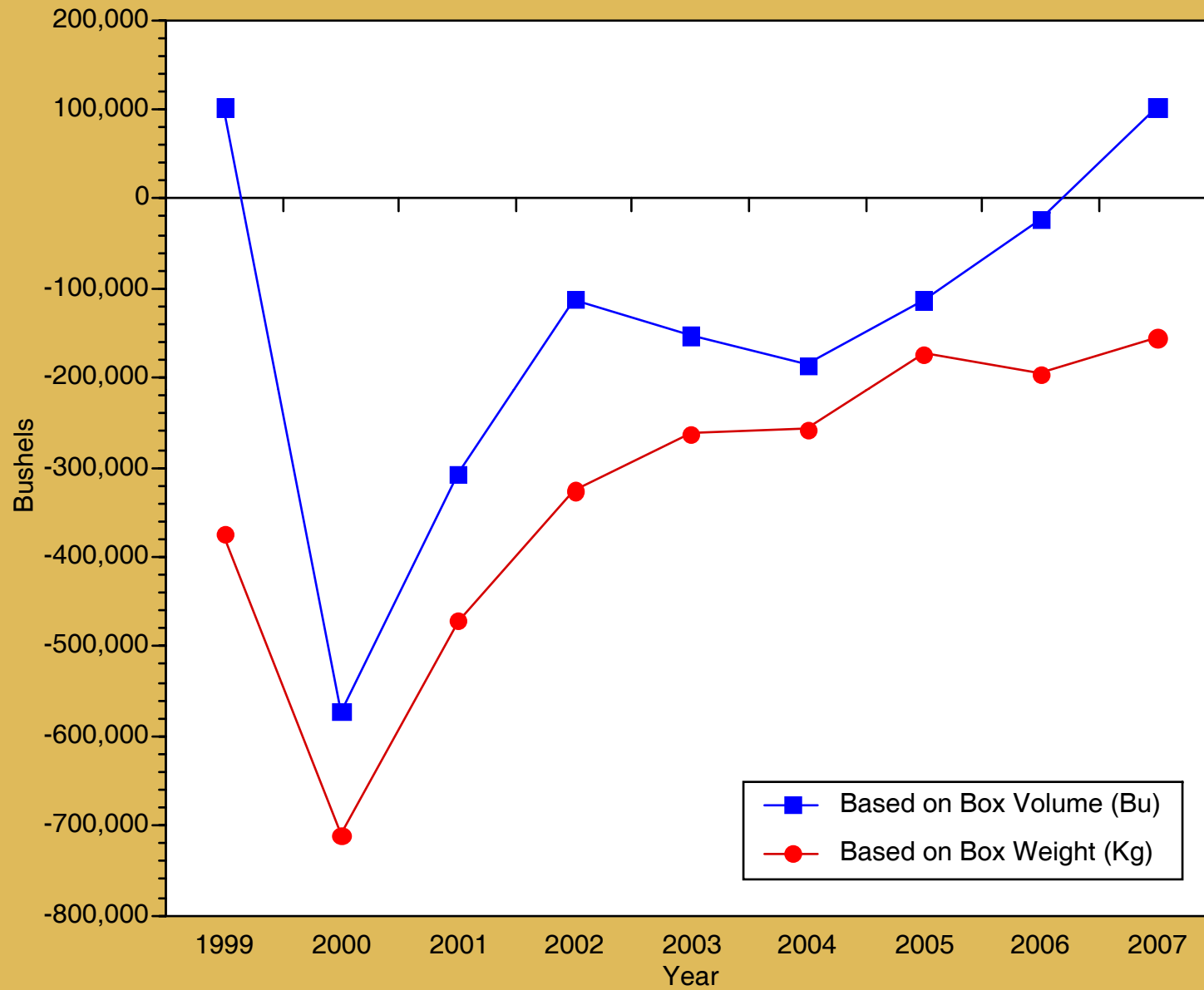
Photo courtesy of NJDEP

2007 Harvest for NJ+DE = 92,654 Bushels

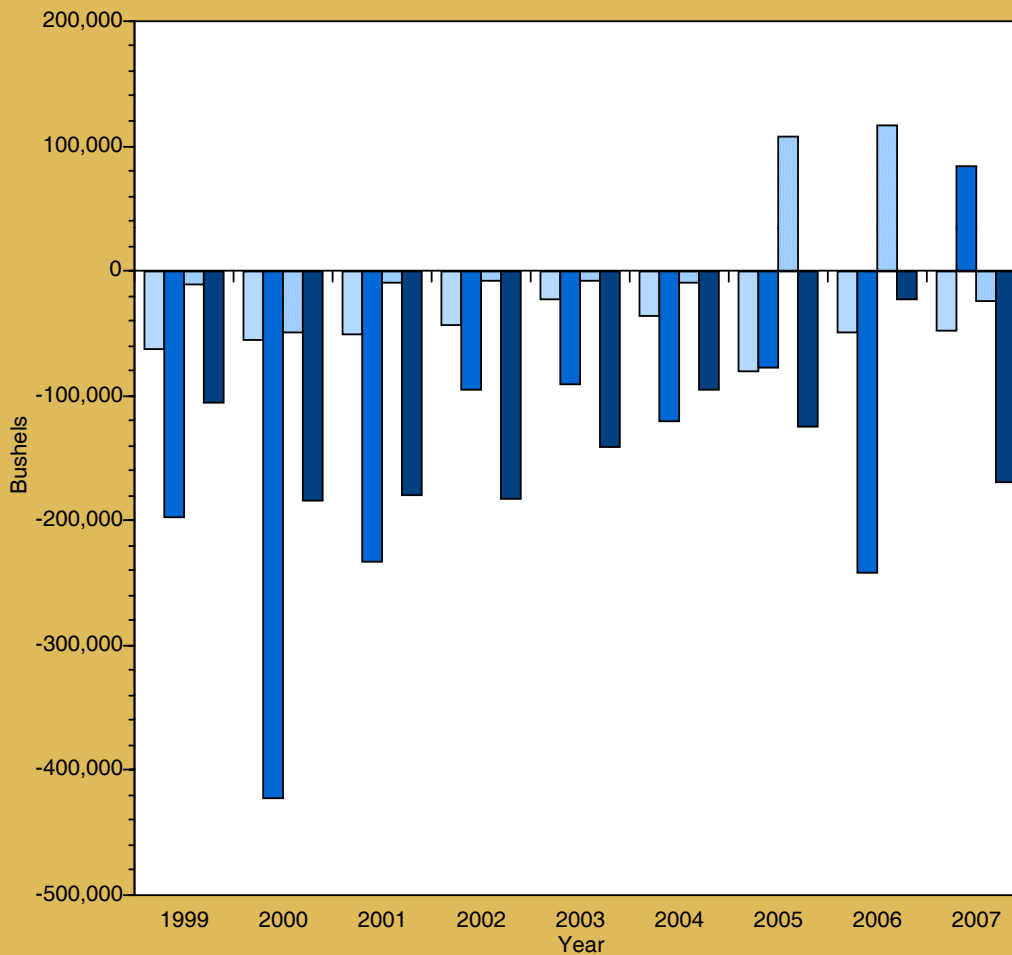
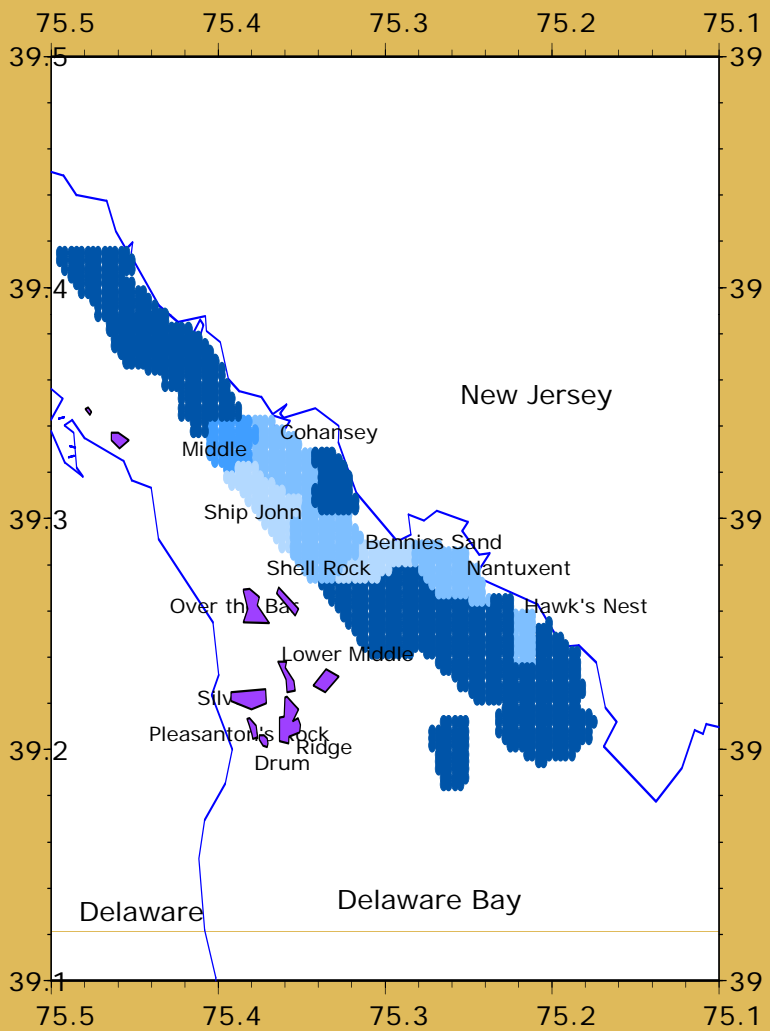
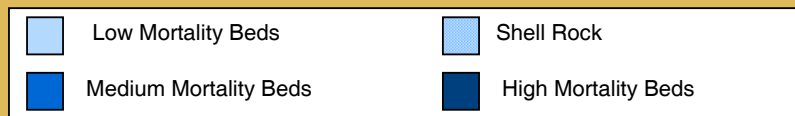
Addition and loss rates of shell 1998-2005



Bushels of Shell Lost on NJ Oyster Beds



Net Change in Shell on NJ Oyster Beds by Region



- Cumberland Empowerment Zone Corporation
 - DE & NJ Shellfish Industries
- DE Dept. of Natural Resources and Environmental Control
 - DE River and Bay Authority
 - DE River Basin Commission
 - DE State University
- NJ Department of Environmental Protection
 - Partnership for the DE Estuary
- Rutgers University's Haskin Shellfish Research Lab
 - US Army Corps of Engineers

QuickTime™ and a
decompressor
are needed to see this picture.



Many thanks to the dozens of individuals who approached their work with true devotion.