

Maryland's Role in Oyster Restoration

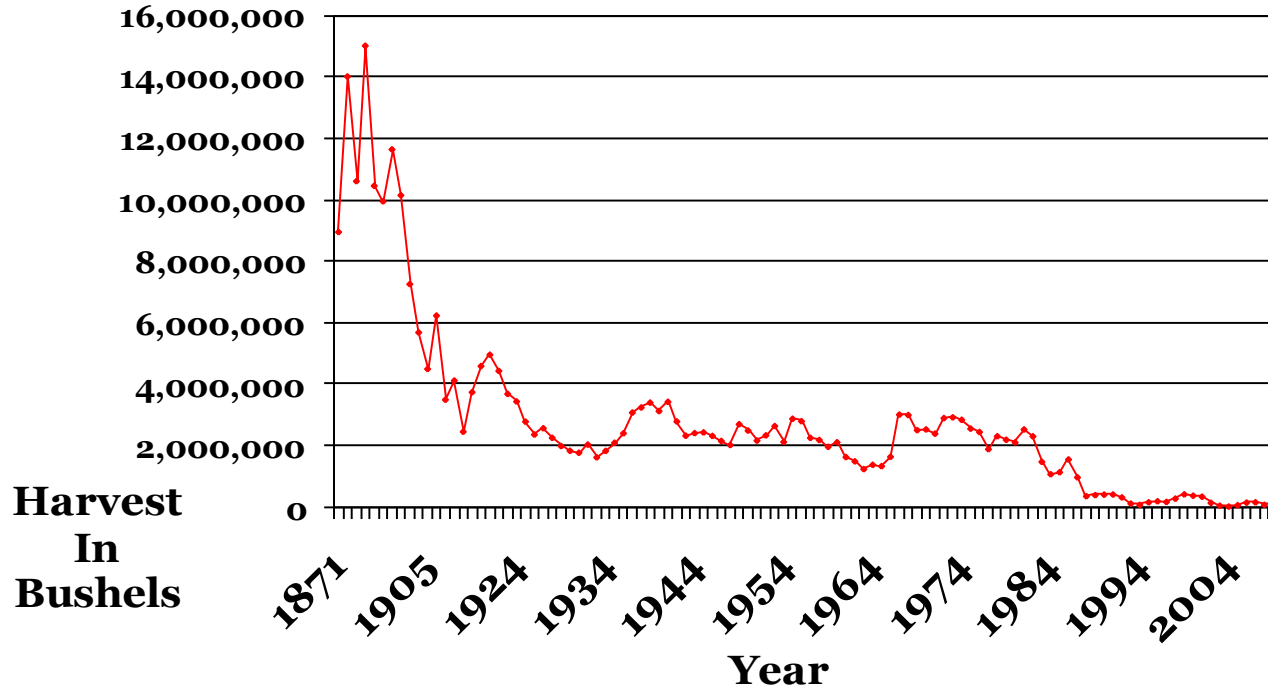
Eric Weissberger

NCER

3 August 2011

MARYLAND DEPARTMENT OF NATURAL RESOURCES

Decline in Oyster Population



- Disease
- Fishing Pressure
- Water quality
- Loss of Habitat

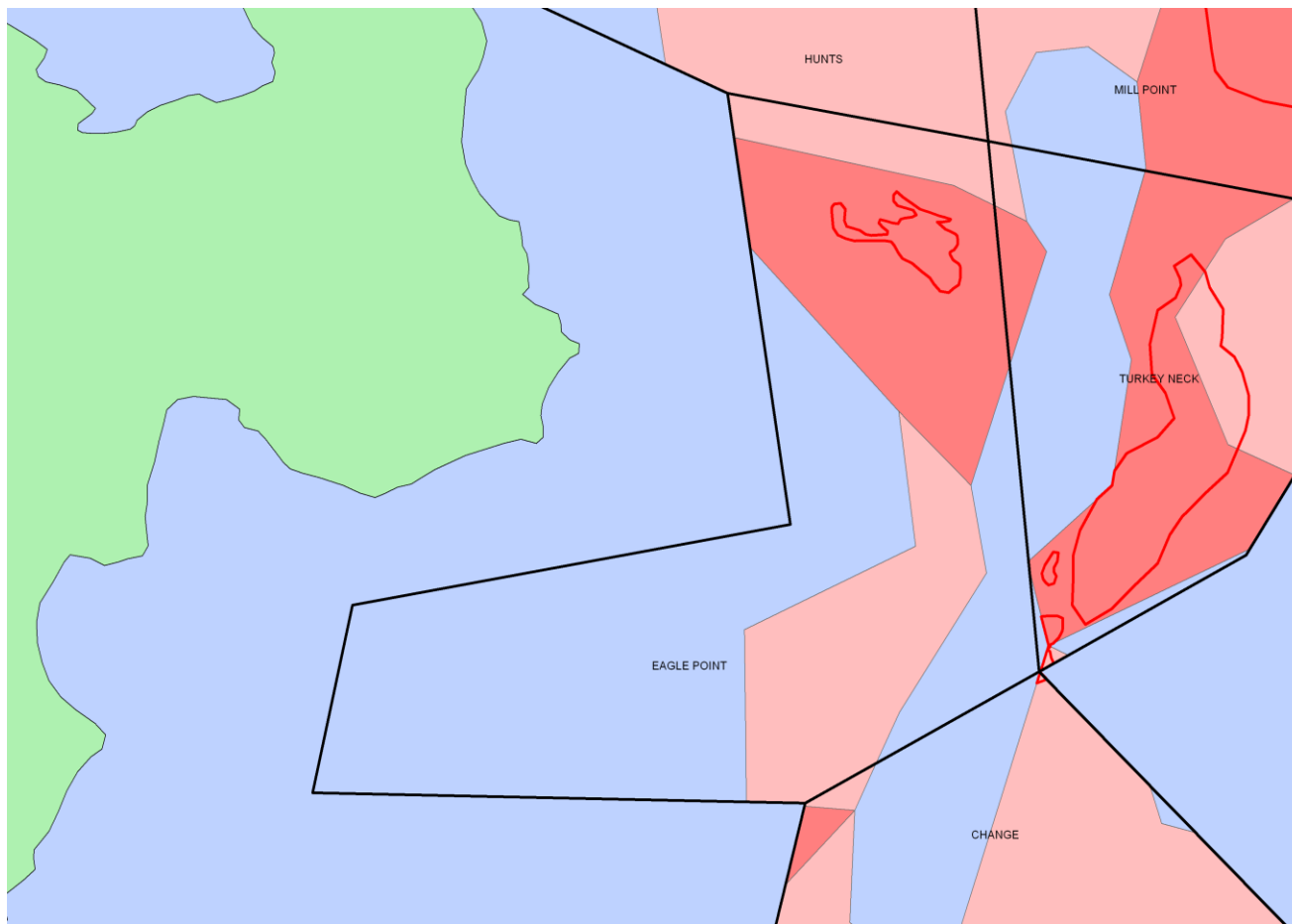


Figure courtesy of K. Greenhawk

Sanctuaries

Wild Fishery



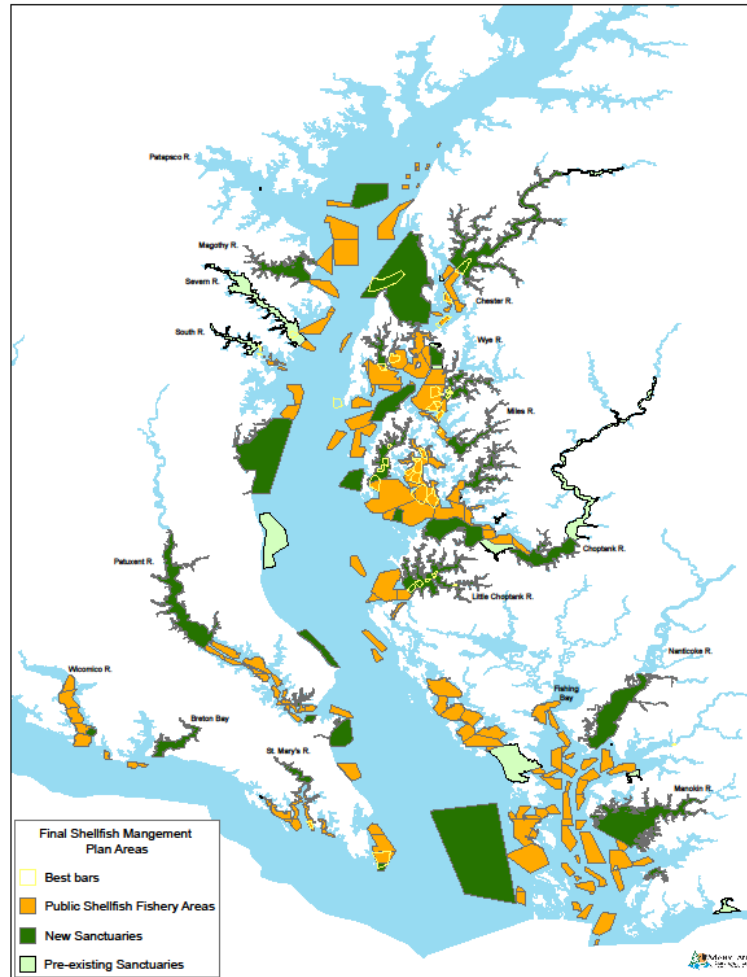
Law Enforcement

Aquaculture

Citizen Involvement

- NOAA: habitat assessment
- Army Corps of Engineers: habitat construction
- U.S. Fish and Wildlife Service: relationship with migratory birds
- VMRC: setting restoration goals
- Oyster Recovery Partnership: planting oysters
- Univ. of MD: monitoring, research

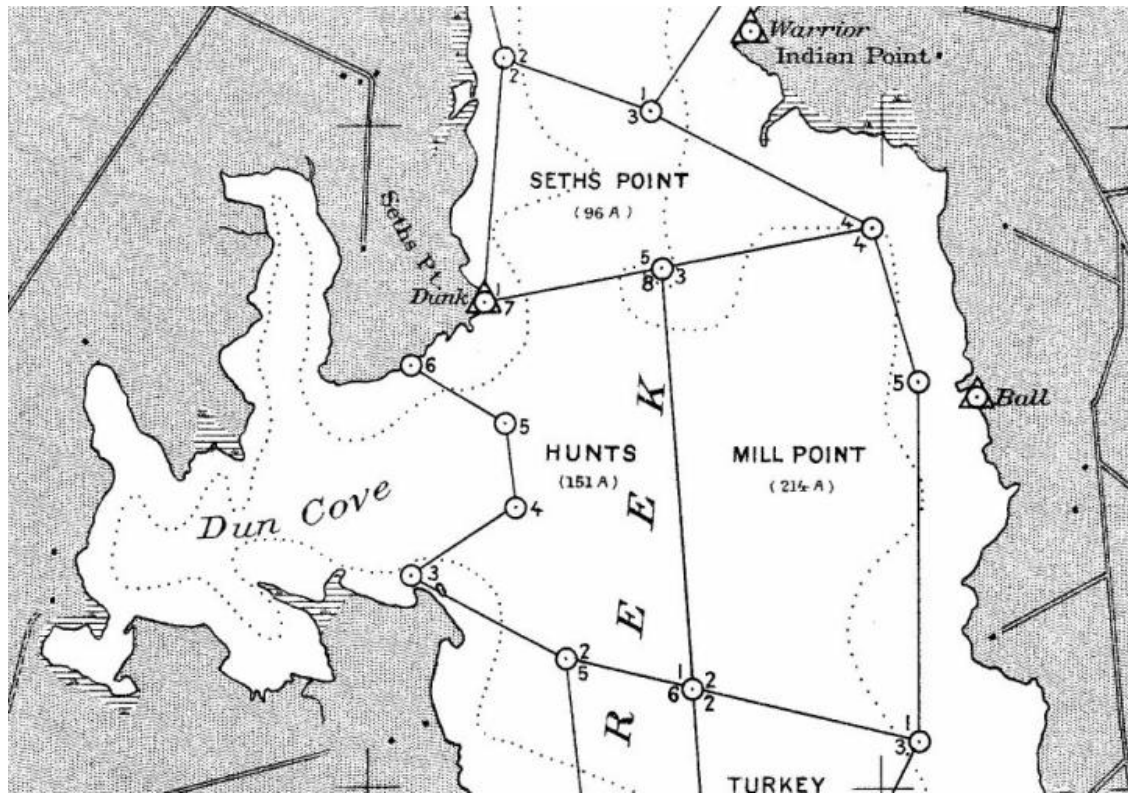
- Contain 24% of remaining good habitat
- Contain some of the most productive bars



Process of Oyster Bar Restoration

Site Selection

1. Examine historic maps

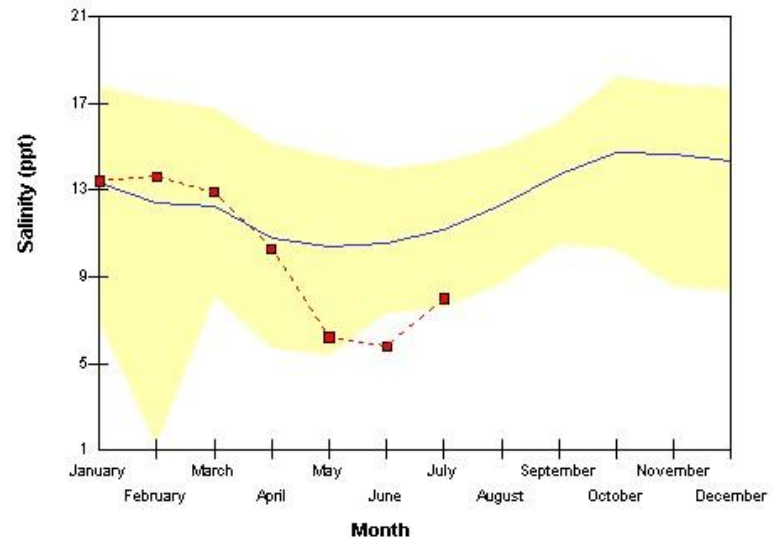
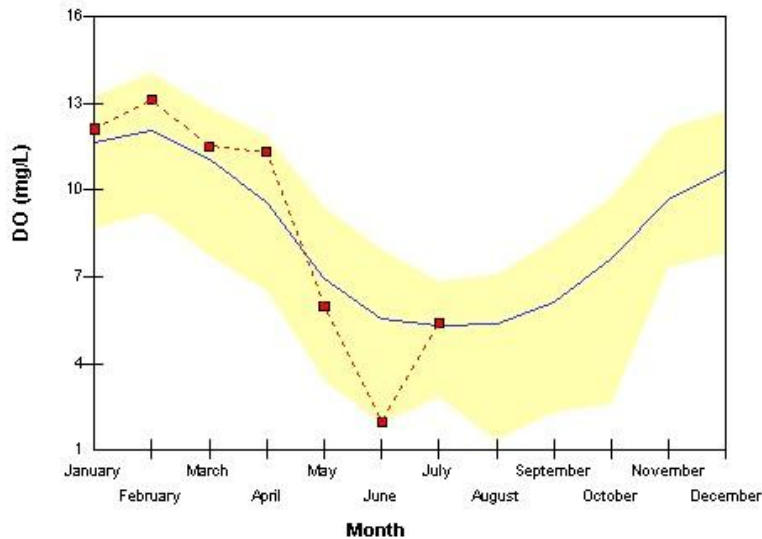


Site Selection

2. Examine water quality

Dissolved oxygen
> 5 mg/l

Salinity
>5 ppt for survival
>8 ppt for reproduction



Process of Oyster Bar Restoration

Site selection

3. Determine if adequate hard substrate is available.



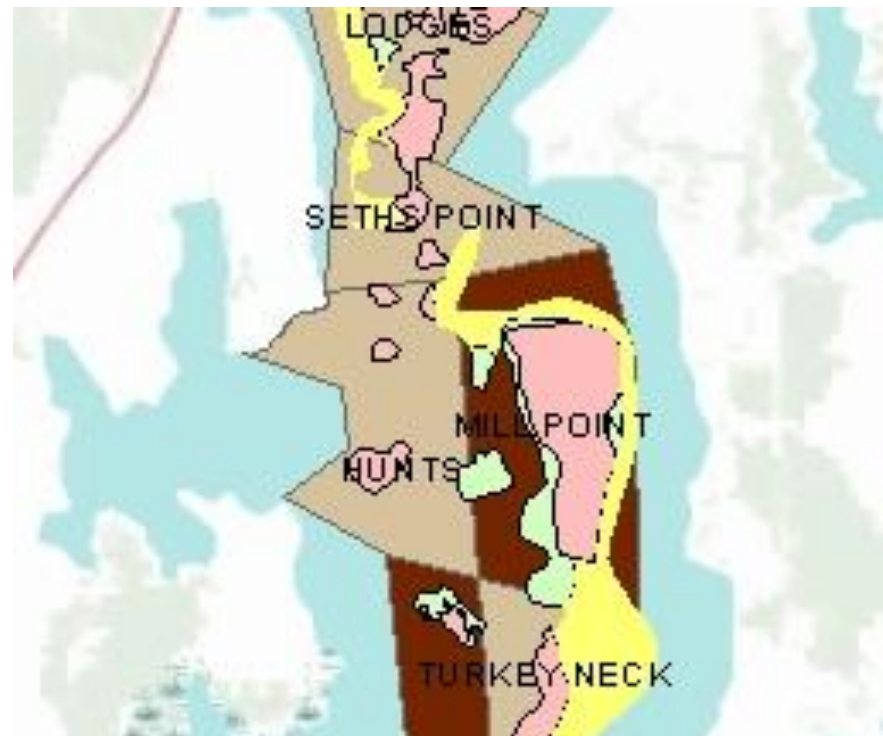
Surface shell



Buried shell



Hard bottom



Restoration Options

Add or Aggregate Shells



Add Spat on Shell



Current Management: bushel limits (15 bushels per day)

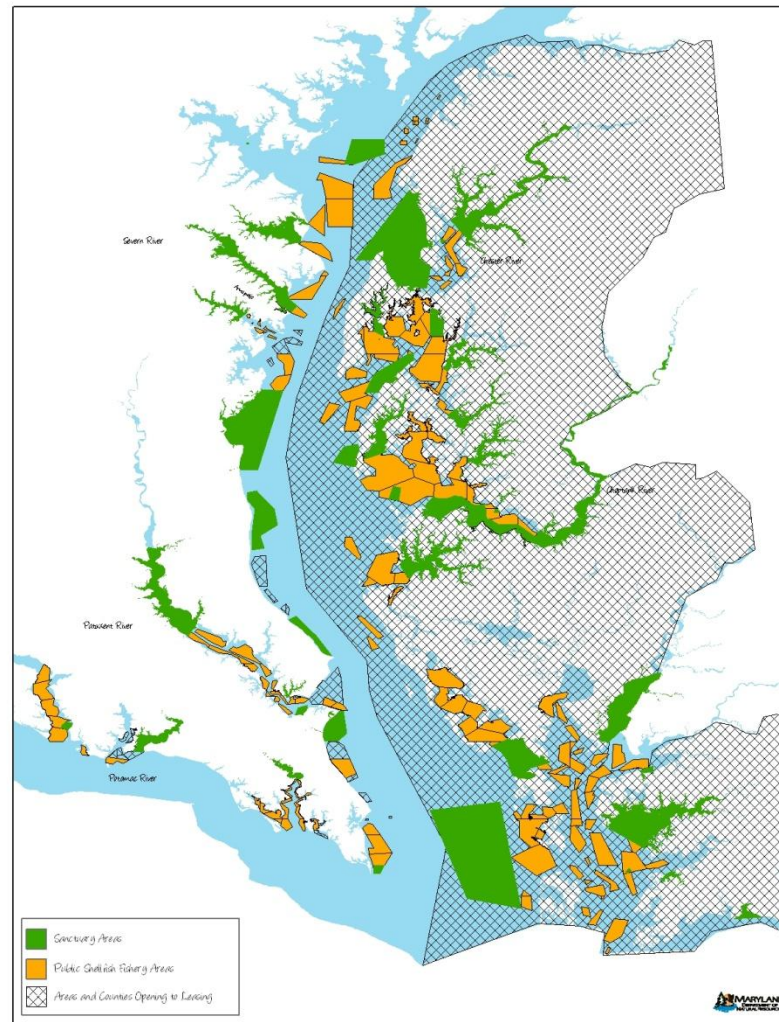


Scientifically-managed fishery: use population size, natural mortality and reproduction rates to determine sustainable removal rates.

Aquaculture



<http://www.marineticsinc.com>



Ecological Benefits of Aquaculture

- Water filtration
- Habitat
- Spawning Stock



www.marineticsinc.com

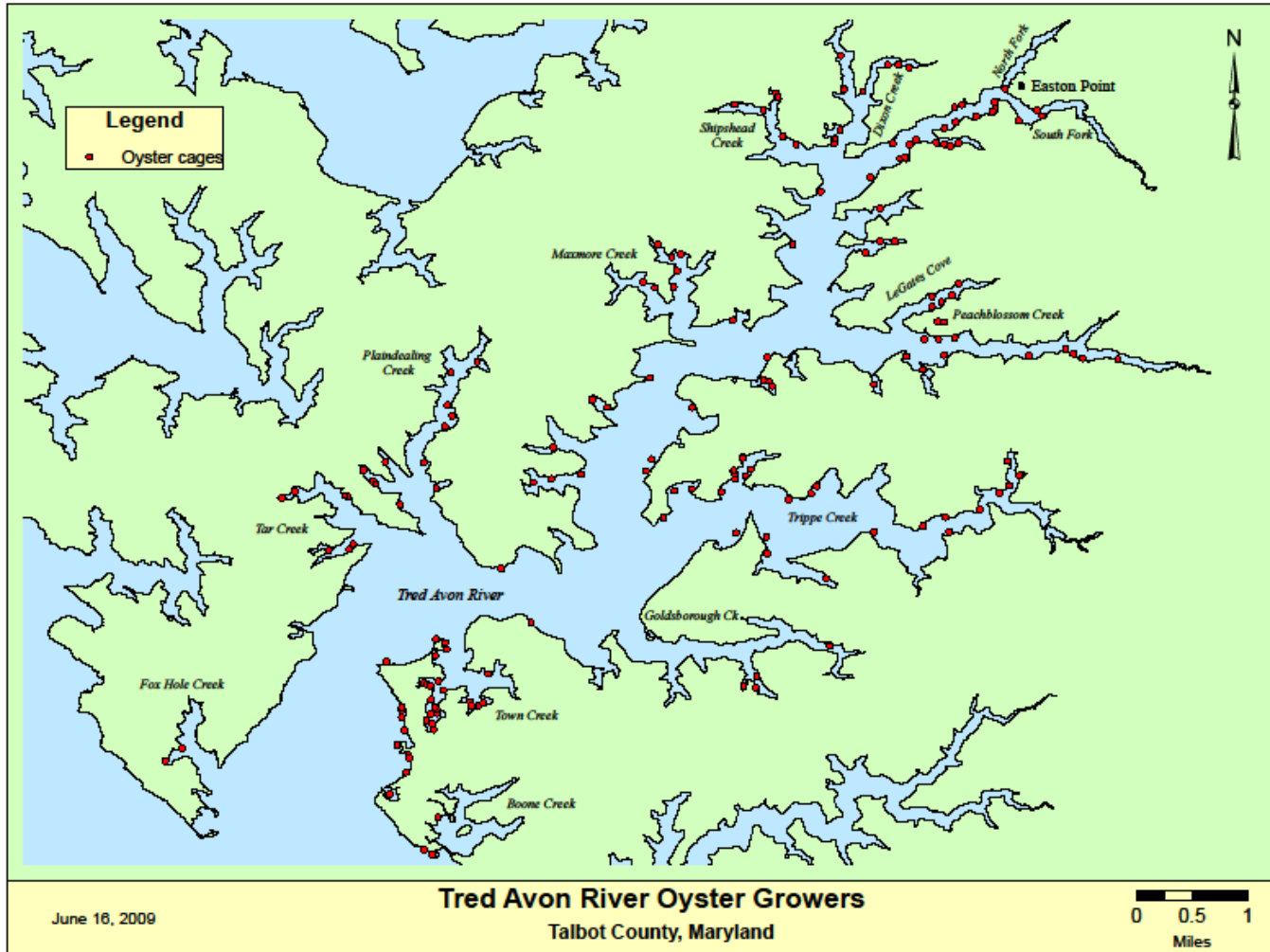
Marylanders Grow Oysters



Planting Oysters on Sanctuary



Citizen Involvement



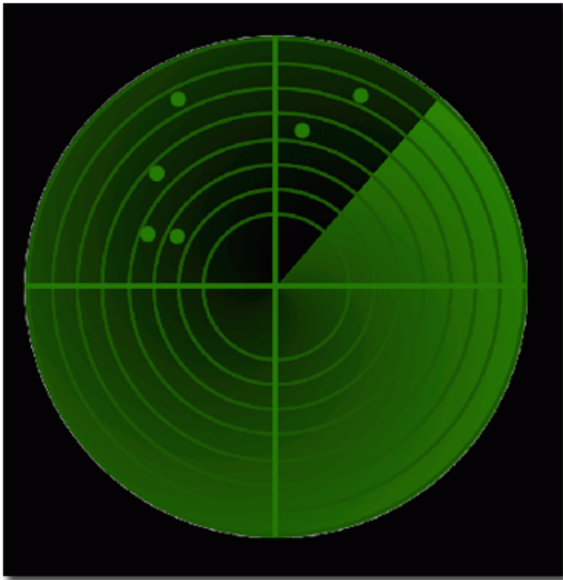




Maryland Oyster Navy founded 1868

MLEIN

Maritime
Law
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Information
Network



<http://www.photoshoperds.com/>



<http://www.prlog.org/>

Natural Resources Court Day



Anne Arundel County District Court

Sanctuaries

Wild Fishery



Law Enforcement

Aquaculture

Citizen Involvement

