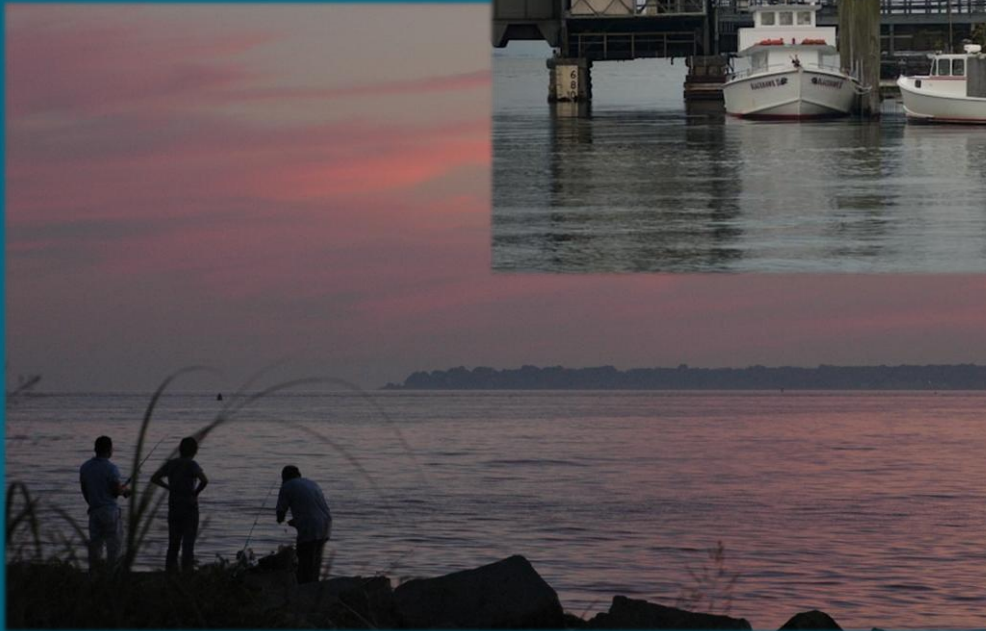


# CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION

## *MARINE FISHERIES DIVISION*



**Informational Meeting on American Lobster  
Management in Southern New England  
July 12&15, 2010**



*Working towards healthy, self-sustaining populations for all Atlantic coast fish species or successful restoration well in progress by 2015*

***American Lobster Addendum to Address Depleted Stock Condition in Southern New England Informational Meetings July 12 & 15, 2010***

***Learn More: [www.asmfc.org/AmericanLobster.htm](http://www.asmfc.org/AmericanLobster.htm)***

***July 22 ASMFC Lobster Board Meeting:***

***[http://www.asmfc.org/meetings/LobsterBoard\\_July22Materials.pdf](http://www.asmfc.org/meetings/LobsterBoard_July22Materials.pdf)***

## *What is the Atlantic States Marine Fisheries Commission (ASMFC)?*

- Compact of States Formed in 1942 to Cooperatively Manage Marine Fishery Resources
- Regulatory authority in State Waters
- 15 Member States (ME-FL)
- 3 Commissioners per State
- ACFCMA 1993 (Federal Fisheries Law ensures compliance with ASMFC Management Plans)

# ASMFC Recent Lobster Management Timeline

- March 2009 Stock Assessment/Peer Review
- April 2010 Recruitment Failure Report
- May 2010 Adopt new Mgmt Reference Points
- May 2010 Initiate Addendum to address depleted stock condition
- July 12 & 15 Informational Meetings (DEP)

# ASMFC Lobster Management Timeline

- July 22 Lobster Board Meeting to Consider Contents of a Draft Addendum to Take to Formal Public Hearing (Special meeting Warwick, RI)
- August 2 Summer ASMFC Meeting
- Summer-Fall Public Hearings
- November (Annual Meeting) Final Decision on Addendum?
- March 2011 (Spring Meeting)..
- June/July 2011 Implementation

# Agenda for Tonight

- Ground Rules for the Night
- Presentation on Southern New England Stock Assessment including LIS specific information
- Questions on the presentation
- Comments about Current Condition of Lobster Resource
- Comments on WHAT OPTIONS SHOULD BE CONSIDERED TO REBUILD THE LOBSTER RESOURCE OVER THE NEXT FIVE YEARS

# Ground Rules

- “Golden Rule” (*Treat Others...*)
- Please Address Your Comments to Me
- Respect Others Right to Differing Opinion

## Ground Rules cont...

- Come to Microphone to make comment
- State Your Name and Affiliation (if any)
- State Your Preference and Tell Us Why You Prefer This Option
- Everyone Who Wishes to Speak Will Be Heard





# STATUS OF THE SOUTHERN NEW ENGLAND LOBSTER STOCK

*North Western Atlantic Ocean*

*National Marine  
Fisheries Service*

*Statistical Reporting Areas*



- Lobster Stock Units**
- Gulf of Maine stock unit
  - Georges Bank stock unit
  - Southern New England stock unit
  - other Stat areas



# Status of the Stock:

## Peer Review Panel Report March 2009.

*"The Panel recommends managers be particularly vigilant of recruitment patterns... and stand ready to impose substantial restrictions should recruitment decline."*

*"The lobster fishery is unusual because the fishery has persisted despite high fishing mortality. The sustainability of juvenile lobster production and thus the lobster fishery is uncertain."*

*"The SNE stock abundance is low compared to the 20-year time series, while exploitation is similar. The pattern of low population abundance is well established. The Panel recommends a reduction in exploitation and implementation of a fishery rebuilding plan for the SNE stock."*

# Status of the Stock:

## Technical Cmte Report April 2010.

*"The SNE stock is critically depleted...*

*Abundance indices are at or near time series lows (ASMFC 2009)  
and this condition has persisted (ASMFC 2006)."*

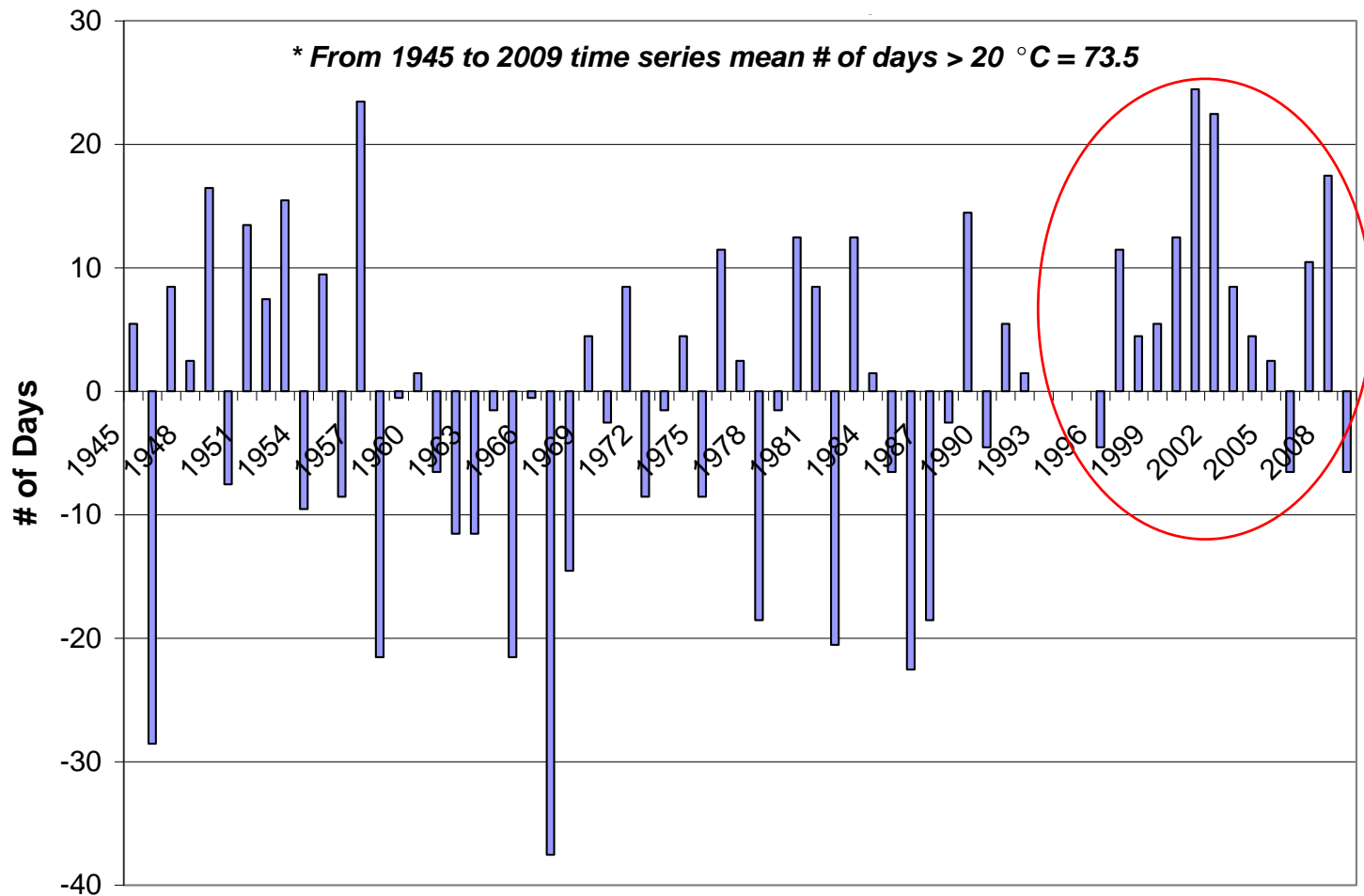
*"The TC contends that the stock is experiencing recruitment  
Failure caused by environmental changes and continued  
fishing."*

*"It is recruitment failure that is preventing stock rebuilding."*

# Potential Causes of Recruitment Failure

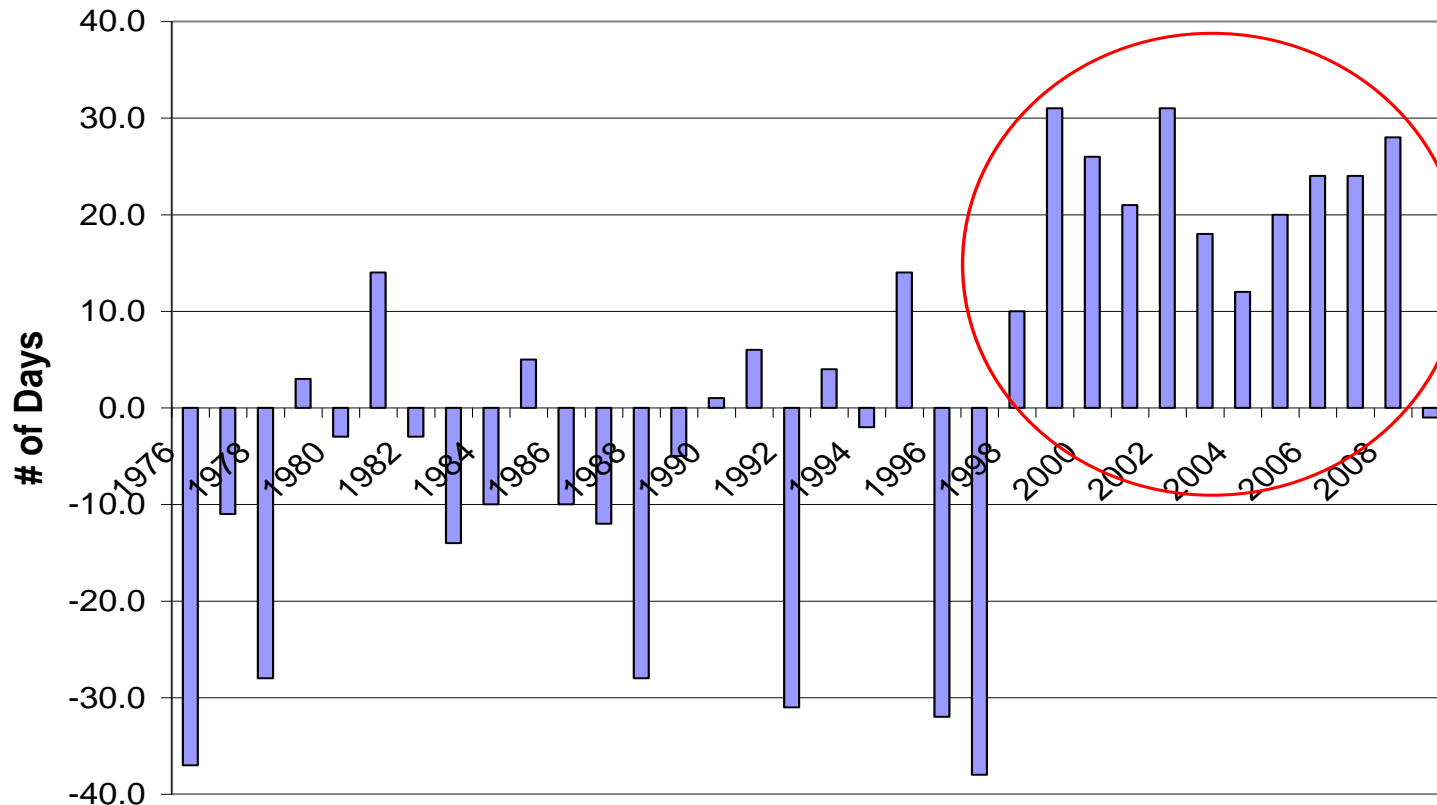
- Environmental – increased frequency/duration of water temperature in excess of 20c threshold associated with stress/disease.
- Continued fishing
- Predation by increasing abundance of shallow-water predators (striped bass, smooth dogfish, scup)
- Fishery discarding increases predation exposure

# Anomalies from the MEAN NUMBER of DAYS ABOVE 20°C of the Woods Hole sea-surface temperature, 1945 - 2009.



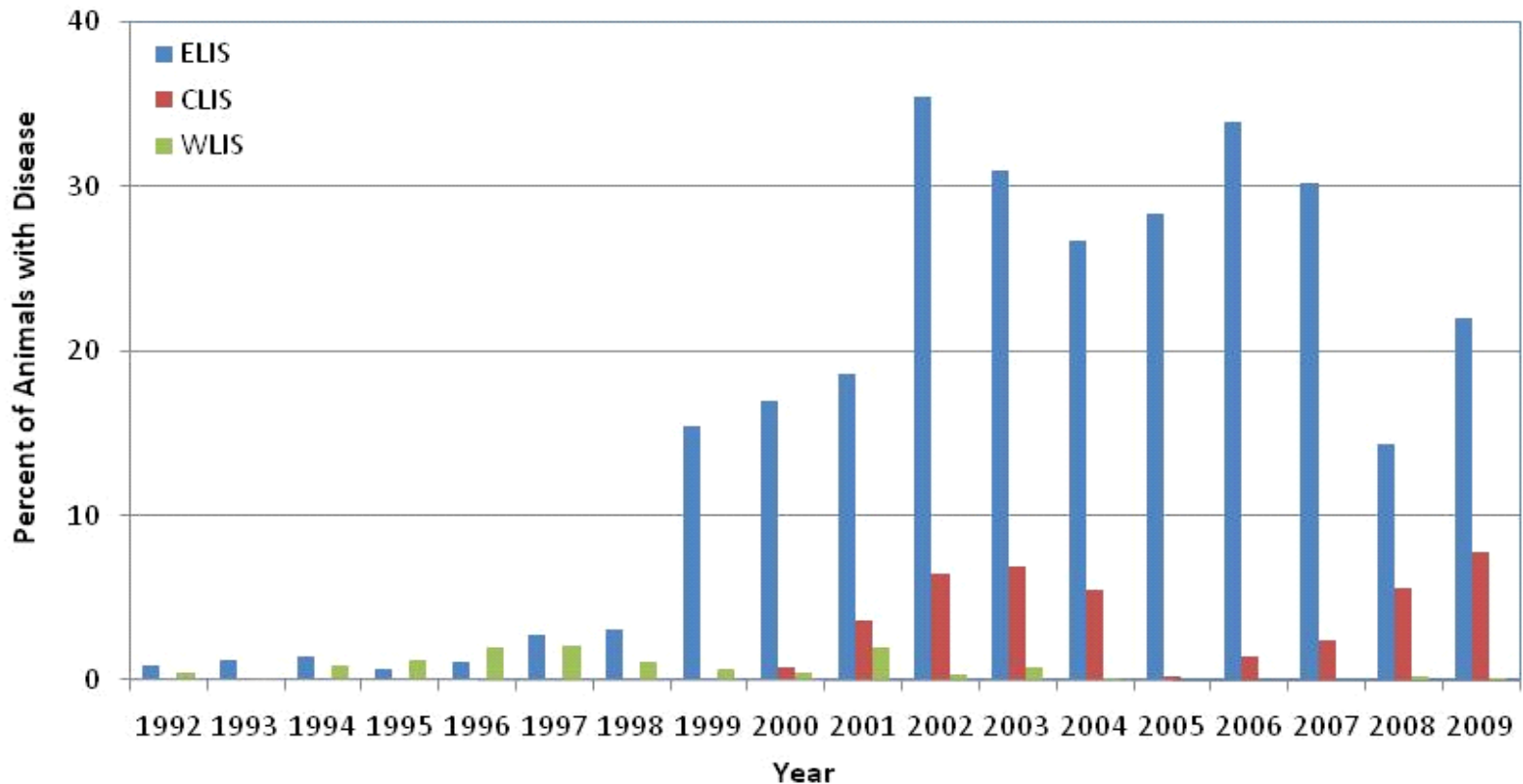
# Anomalies from the MEAN NUMBER of DAYS ABOVE 20°C at MILLSTONE POWER STATION INTAKES, 1976-2009

\* From 1976 to 2009 time series mean # of days > 20 °C = 45.8



# Other Concerns: Shell Disease

## Percent Occurrence of Shell Disease by Basin

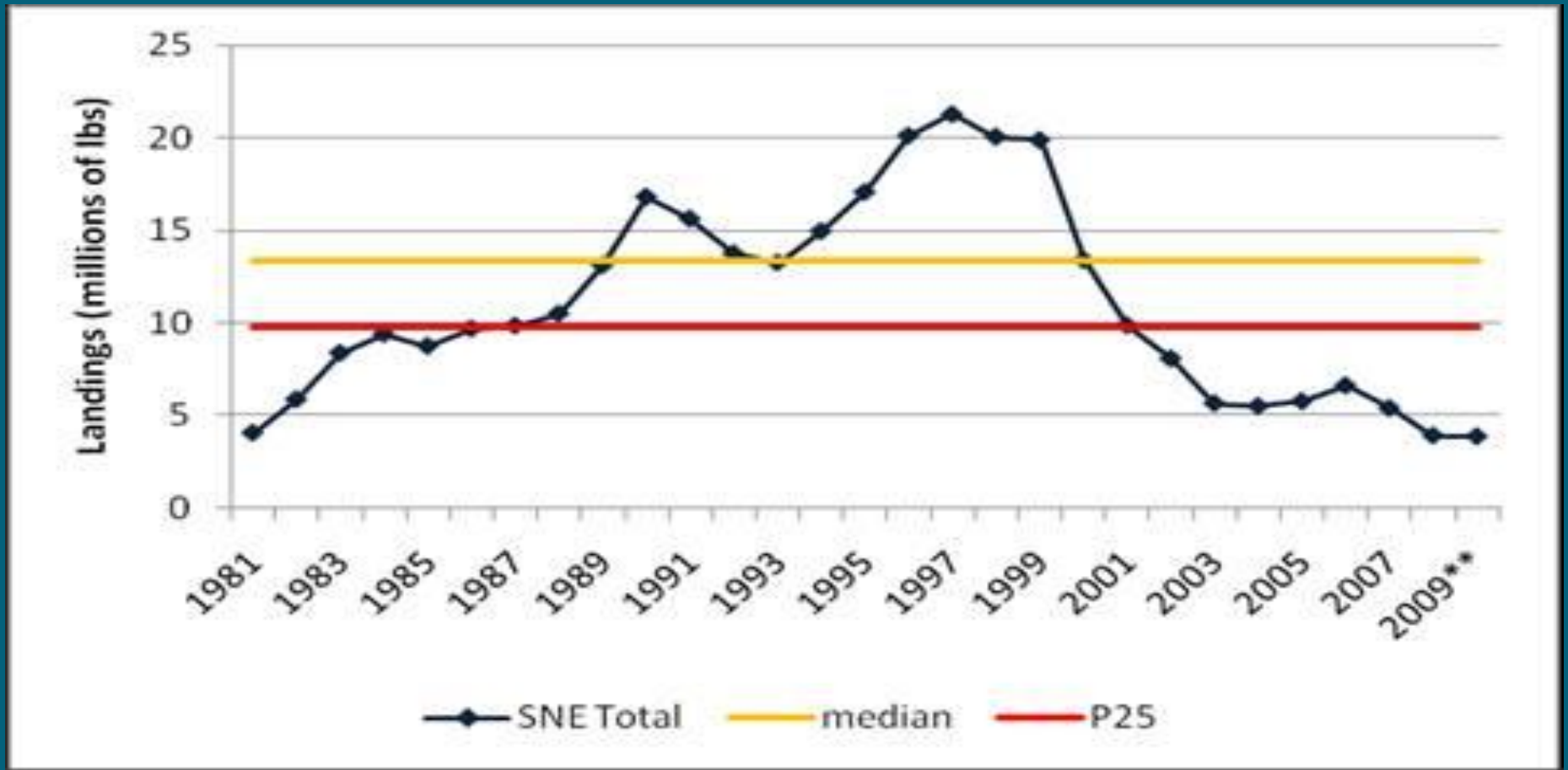




# Indications of recruitment failure in the Southern New England Stock & LI Sound

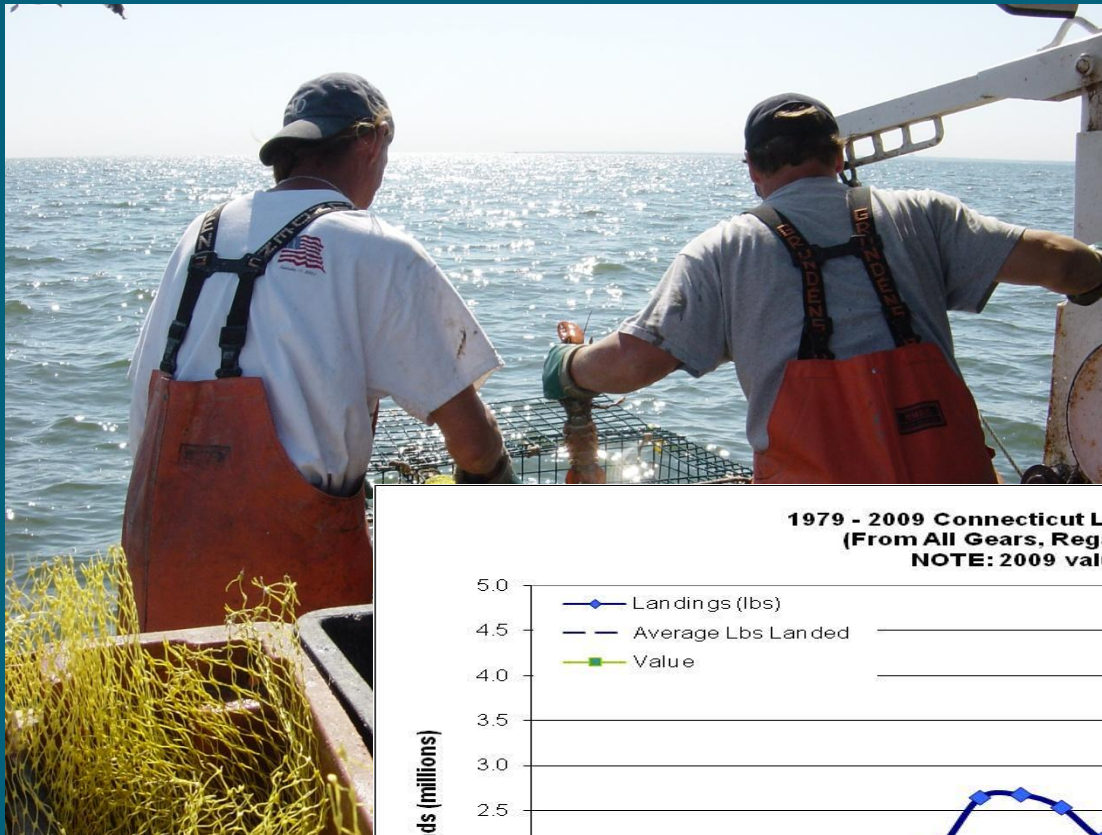
- Stock-wide indices of reproductive potential and abundance continue to fall
- 10 years of falling landings matching falling abundance in DEP surveys (MFIS, LISTS)
- fewer sub-legal than legal size lobsters in the commercial catch since 1998 (sea-sampling)
- 8 out of last 9 years with poor larval production in Eastern & Western Long Island Sound

# Total Southern New England Lobster Landings

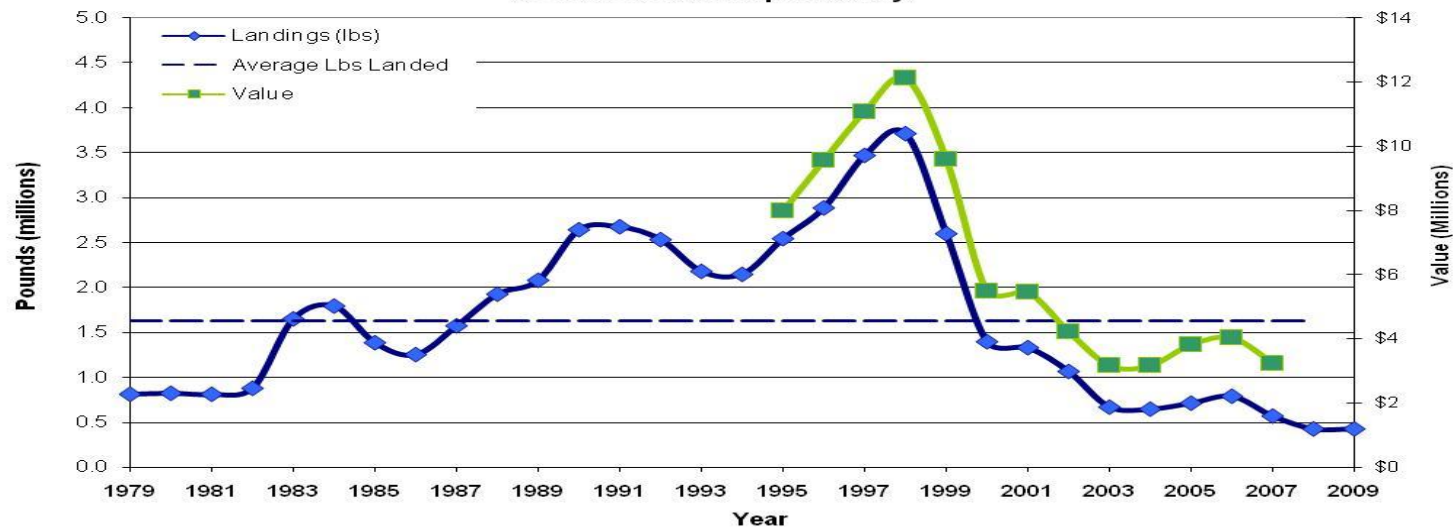


The median (yellow) and 25th percentile (red) of the 1984-2003 reference period are shown.

# Connecticut Landings: pounds and dollars

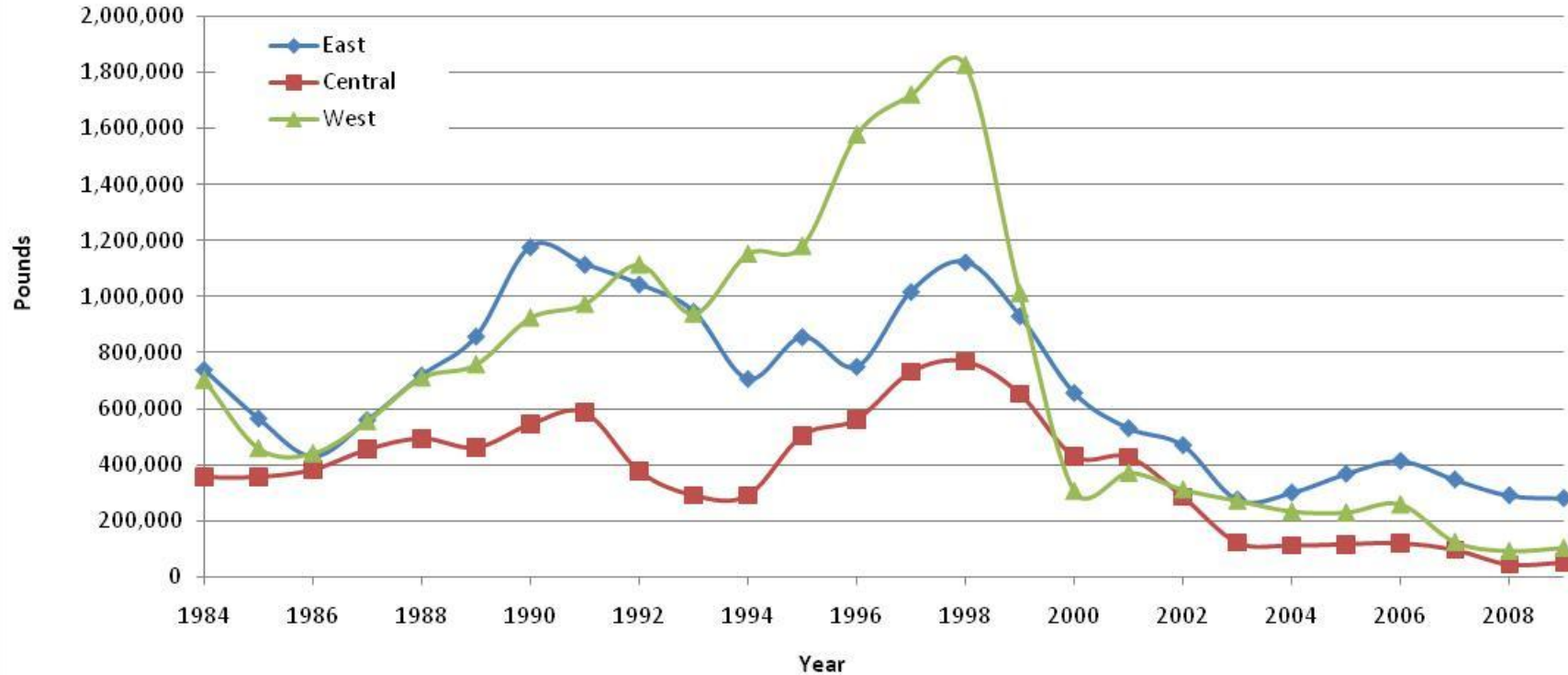


**1979 - 2009 Connecticut Lobster Landings and Value  
(From All Gears, Regardless Where Caught)  
NOTE: 2009 value is preliminary!**



# Connecticut Landings by Basin

## Connecticut Landings By Basin of Long Island Sound, 1984 - 2009

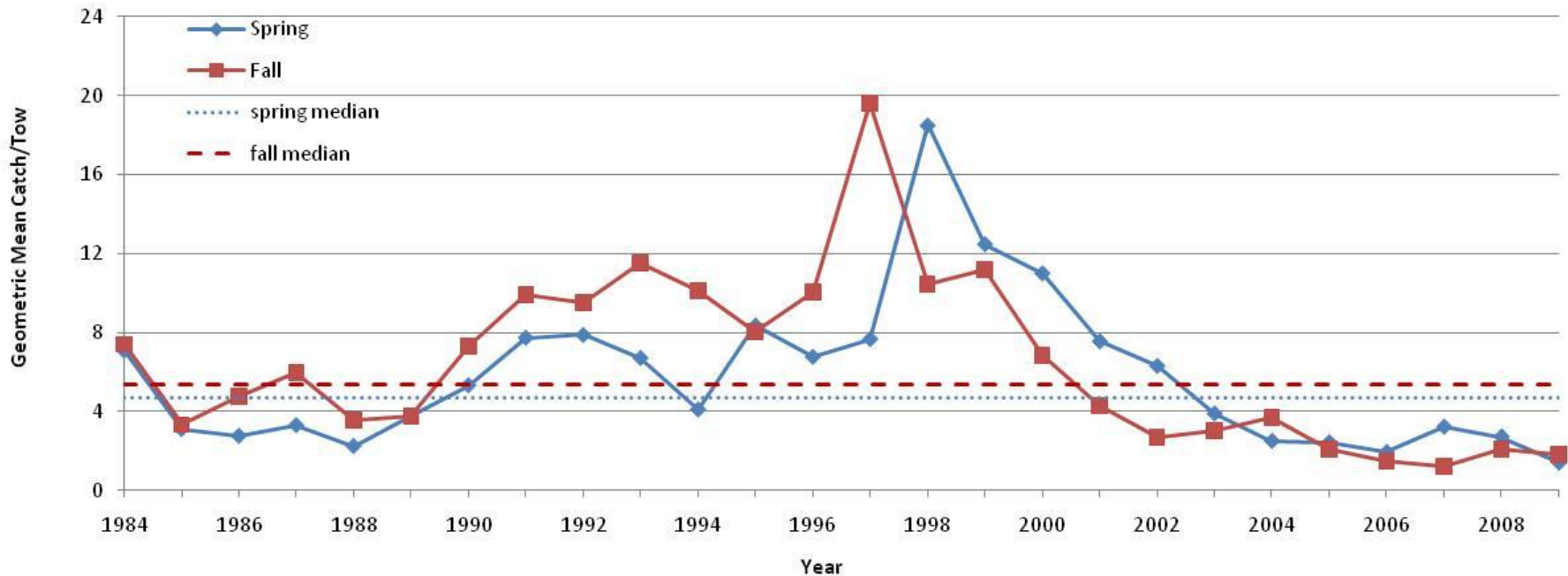




# CT DEP Long Island Sound Trawl Survey



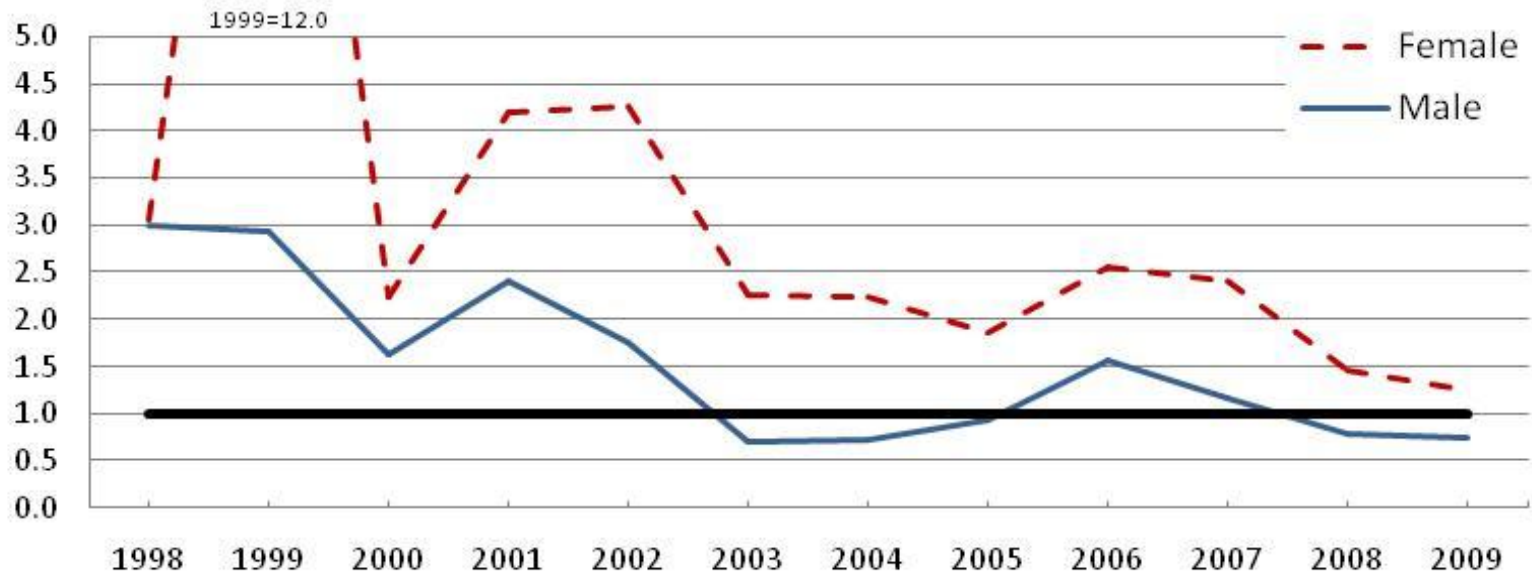
CT DEP Long Island Sound Trawl Survey  
Indices of Lobster Abundance 1984-2009



# Ratio of fished to unfished sizes

Unfished:Fished in ELIS by Sex 1998 - 2009


Unfished:Fished in WLIS by Sex, 1998 - 2009

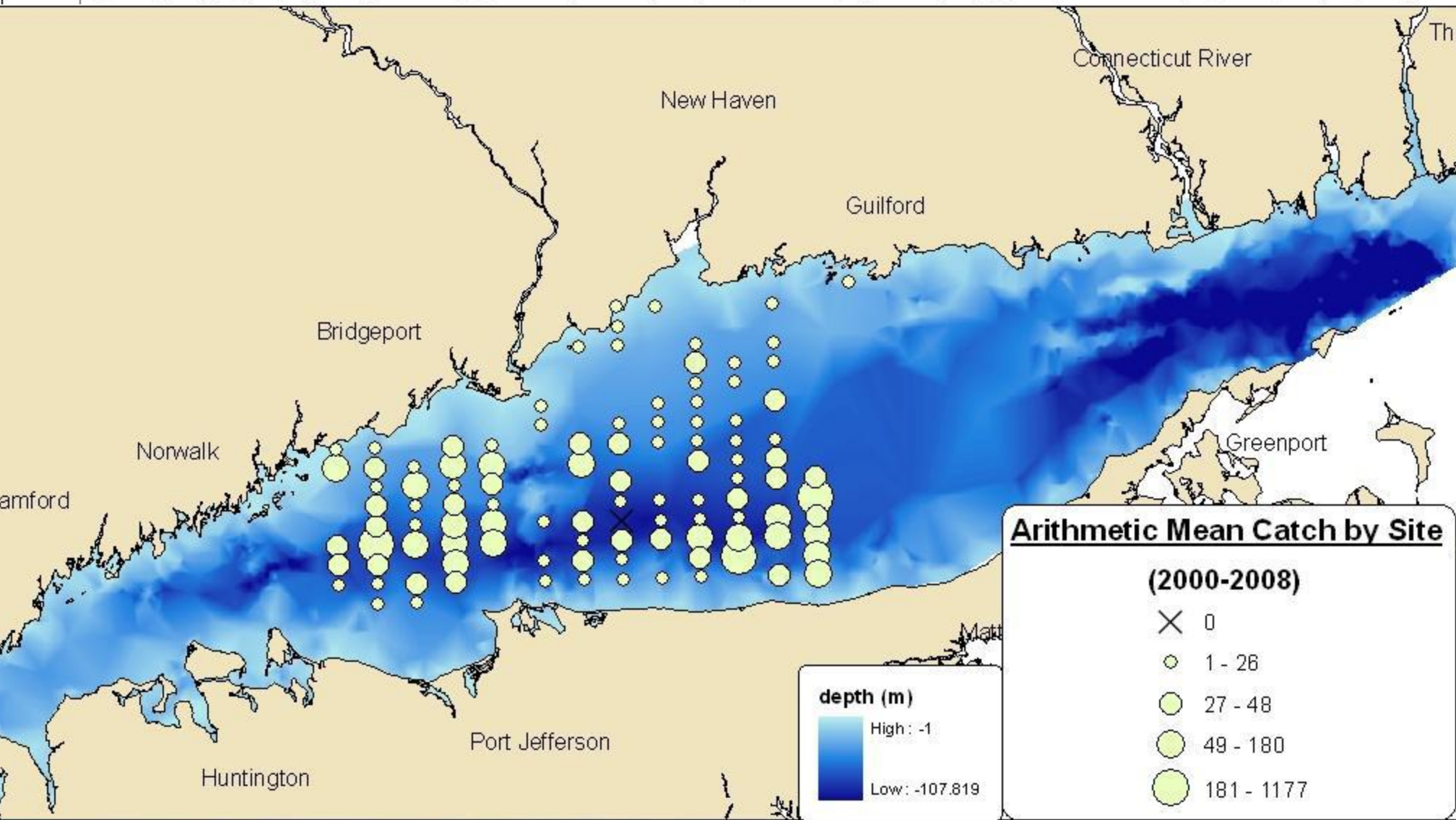


A RATIO BELOW ONE MEANS THAT THERE ARE MORE OLD LARGE LOBSTERS ALREADY IN THE FISHERY THAN YOUNG SMALL ONES READY TO ENTER THE FISHERY



# Remaining stock concentrated spatially

- Nearshore waters more depleted (temp, predation)
  - Spatial concentration in deeper waters increases fishery impact (exploitation rate) on remaining population
- 





# Parallel Actions

- Fishery Management – Work to rebuild resource so that it can support a viable, sustainable commercial/recreational fishery again
- Socio-Economic – State-Federal elected officials petition NOAA to find Federal Fishery Disaster in SNE and seek assistance for fishermen (as done in LIS 2000)

# Questions on the presentation?



# Comments about Current Condition of Lobster Resource





WHAT OPTIONS SHOULD BE  
CONSIDERED TO REBUILD  
THE LOBSTER  
RESOURCE  
OVER THE NEXT  
FIVE YEARS?



*Thank You for Coming!*



Comments can be submitted to:

David Simpson, Director  
CT DEP Marine Fisheries Division  
PO Box 719  
Old Lyme CT 06371

Email: [david.simpson@ct.gov](mailto:david.simpson@ct.gov)

Phone: (860)434-6043

# More Trends in Fishery

- Licenses sold in CT
- Traps fished
- Trap Hauls
- Recruitment indices....

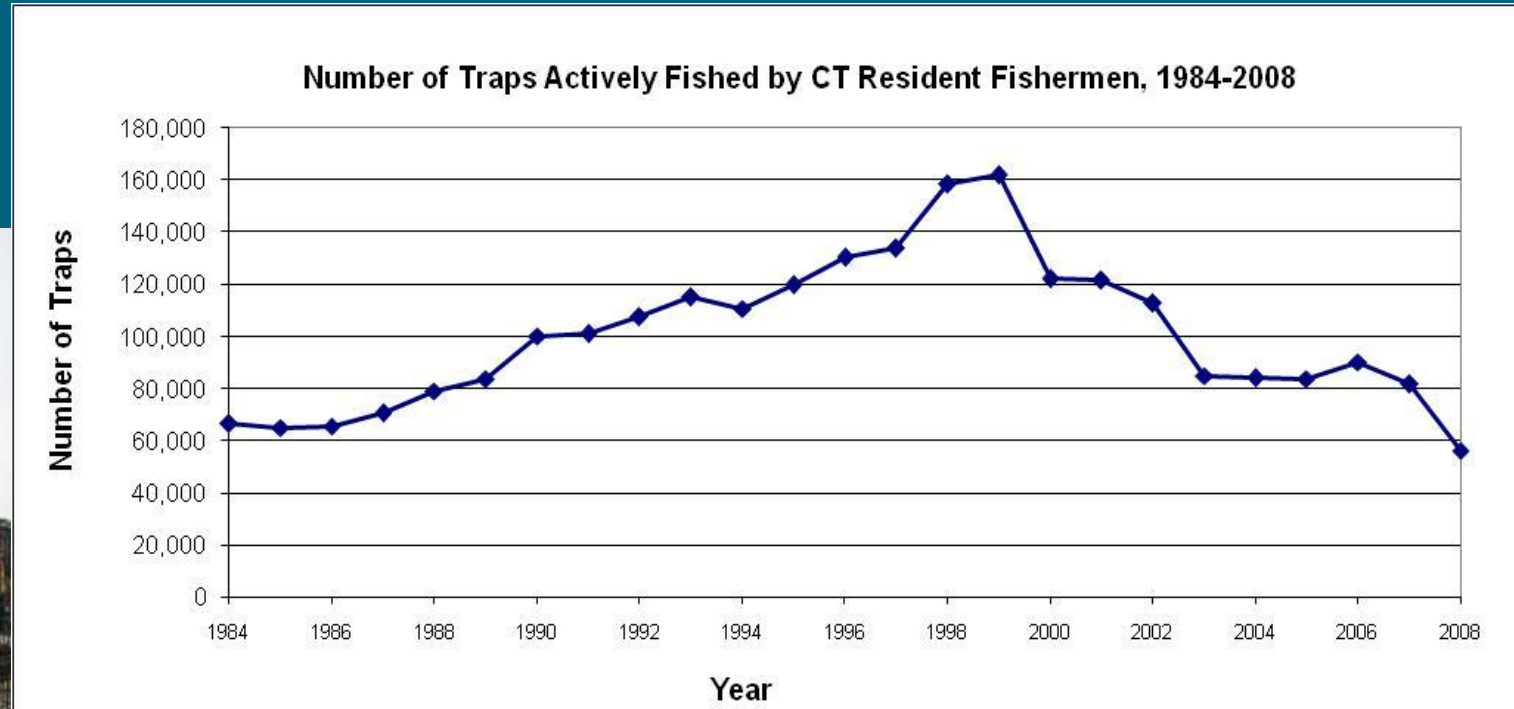
# Participation in the CT Lobster Fishery



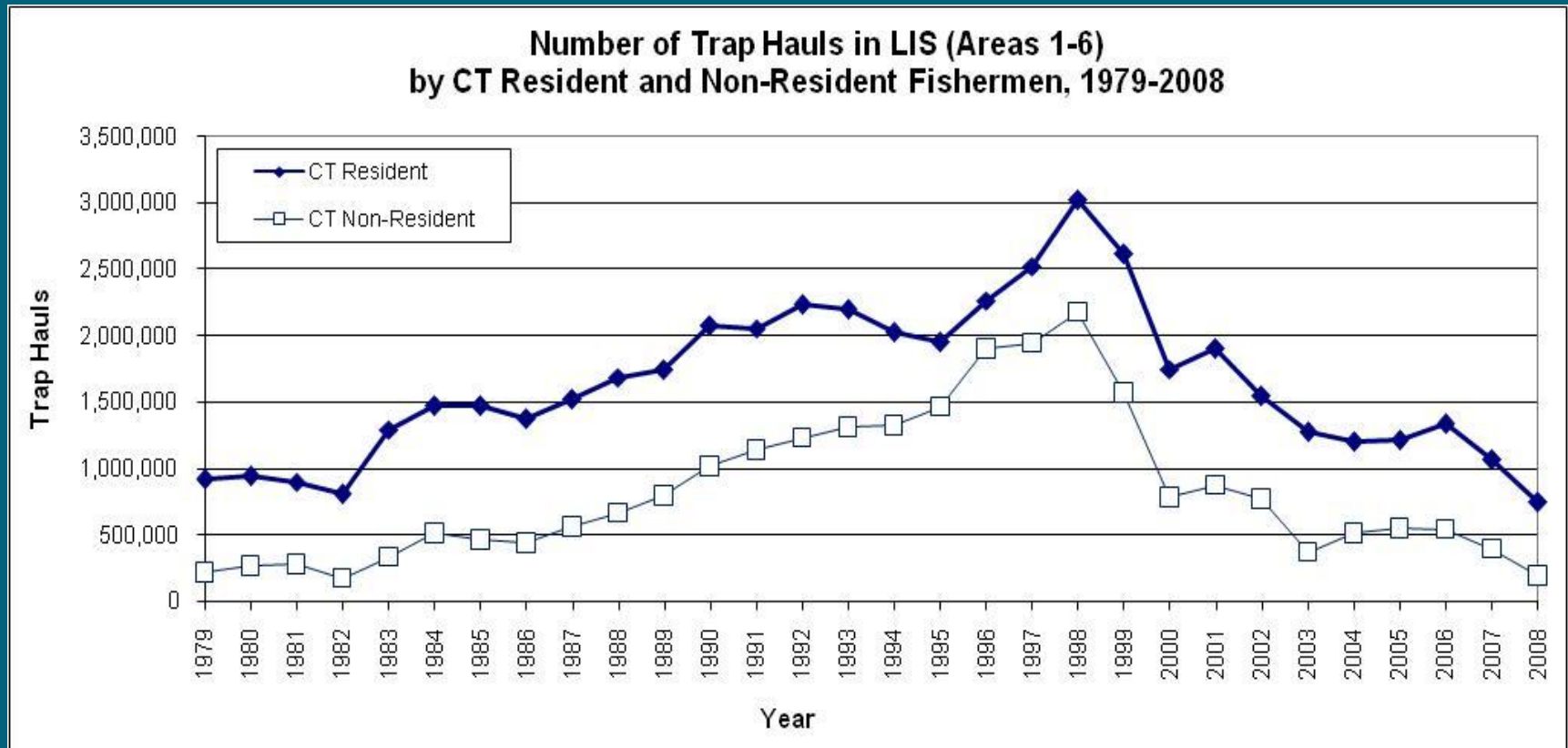
There are many reasons for the decline in license holders.



# Effort: declined to 1980's levels



# Effort: declined to 1980's levels same trend in resident & non-resident

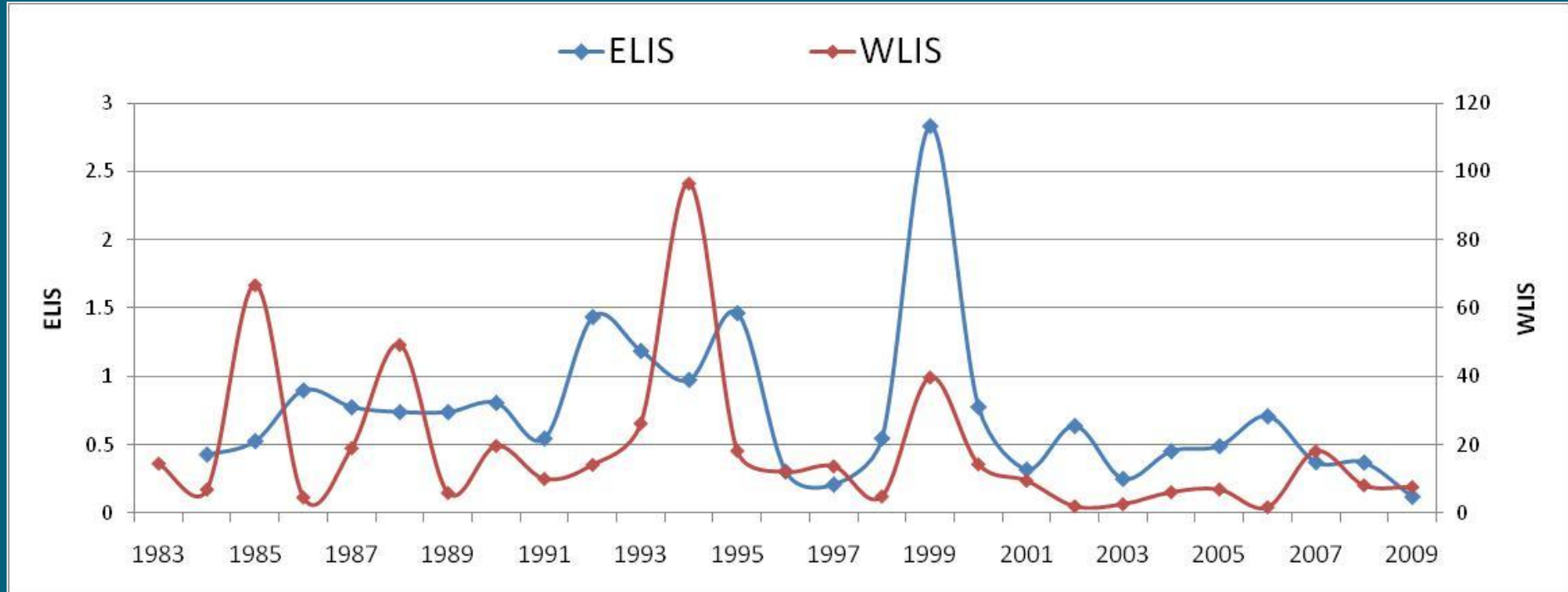


# Lobster Landings By Stat Area



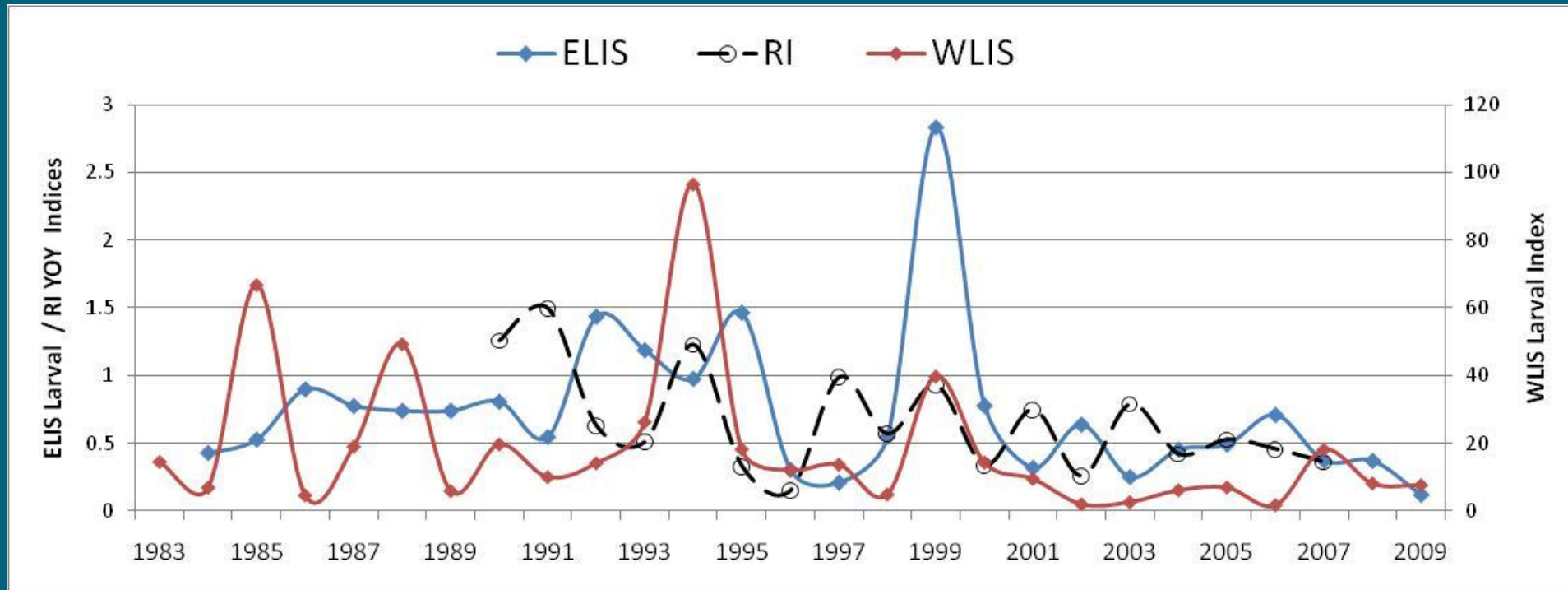
Area 611 = Long Island Sound and the Race area  
Area 539 = Block Island Sound, RI Waters

# TRENDS in LARVAL PRODUCTION



**ELIS: Millstone entrainment densities of all larval stages**  
**WLIS: CT DEP Plankton Survey of late-stage larvae at 7 stations west of Stratford Shoals**

# LARVAL and YOUNG-OF-YEAR INDICES for the SNE LOBSTER STOCK



ELIS: Millstone entrainment densities of all larval stages  
WLIS: CT DEP Plankton Survey of late-stage larvae at 8 stations  
RI: YOY densities at two sites in Narragansett Bay

# Continuous temperature recordings inside lobster traps

2006-2009 Near-Bottom Water Temperatures in Western Long Island Sound (75-110ft depth)  
(daily averages reflect 48 half-hour readings per day)

