

Florida Keys National Marine Sanctuary  
*Sentinel Lobster Fisheries Project*



# *Study Objectives*

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**Objective 1**--To directly involve commercial fishermen in monitoring.

**Objective 2**--To determine how abundance and size differ among reserve and non-reserve areas.



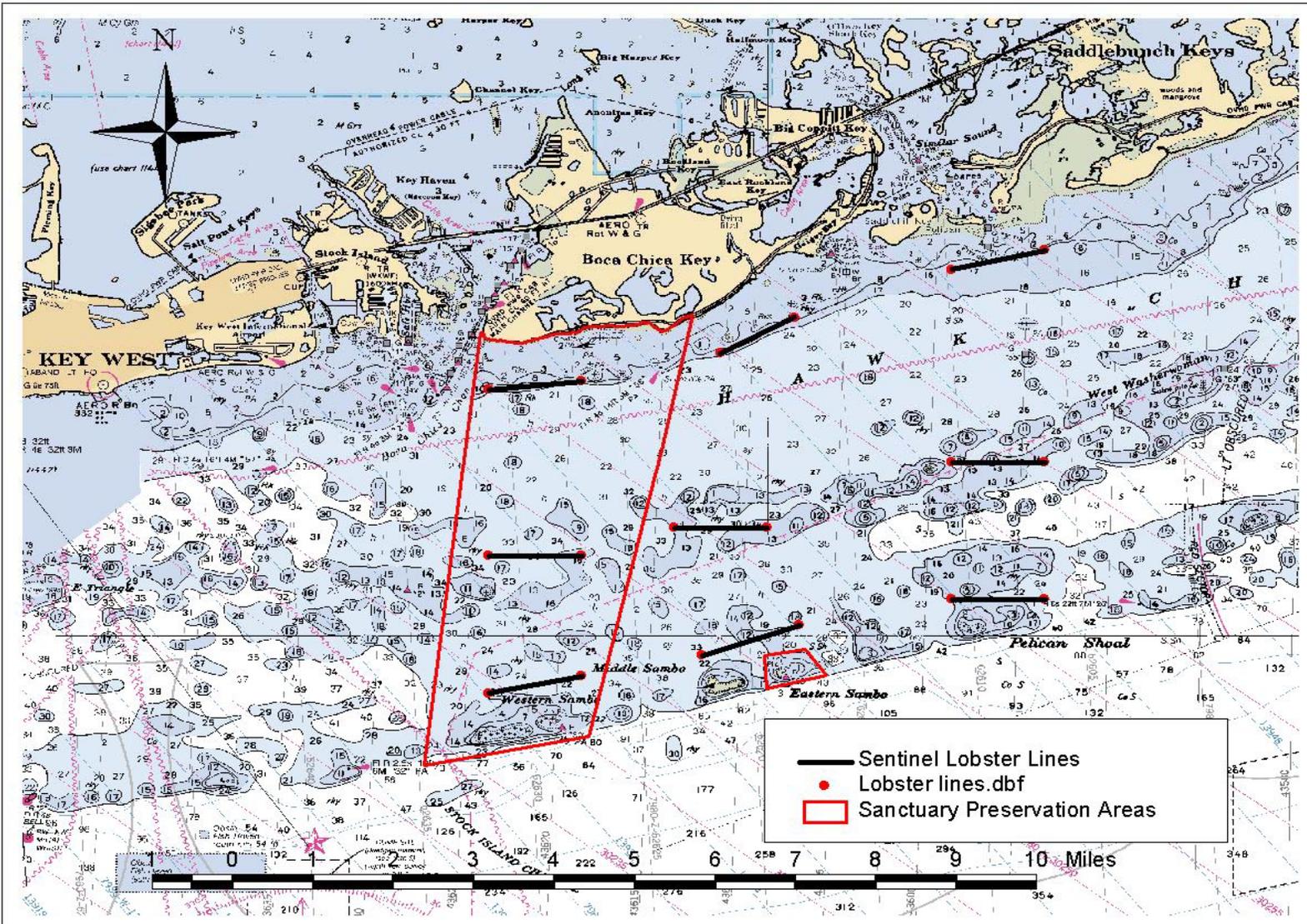
**Objective 3**--To determine if the reserve is contributing yield to adjacent areas.

# *Sampling Protocol*

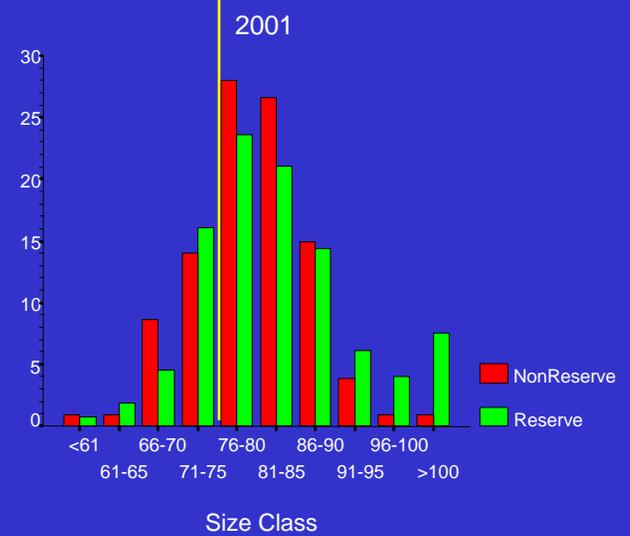
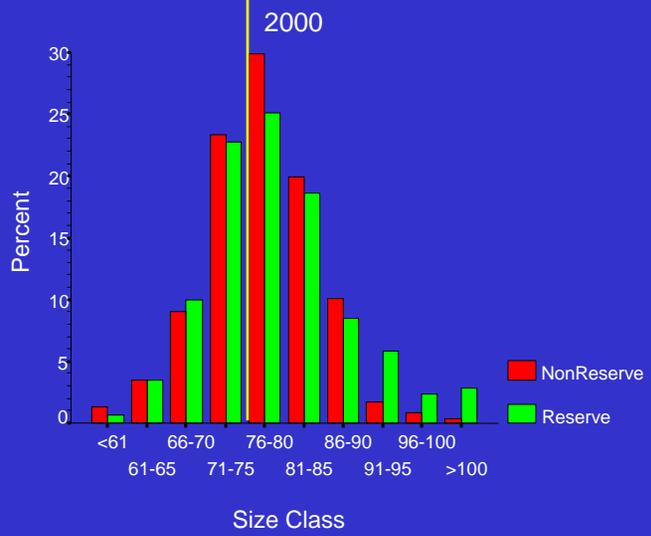
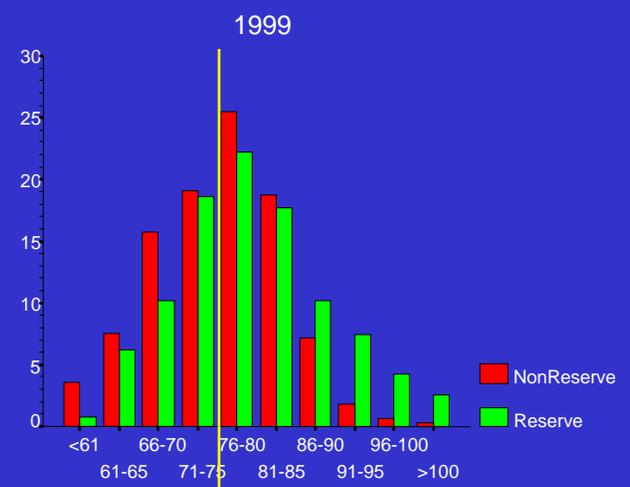
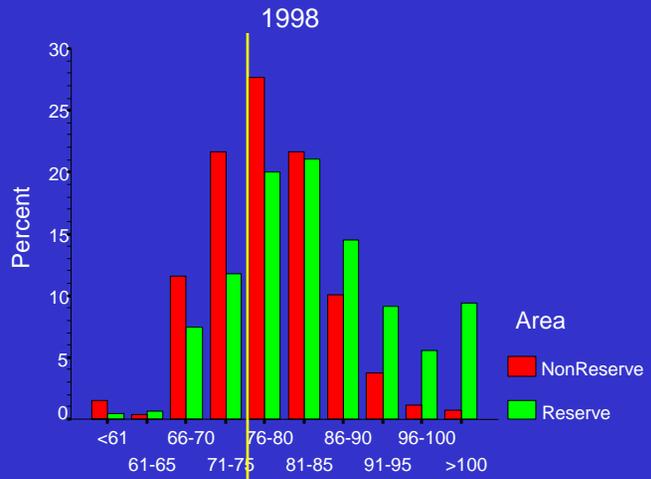
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- June and November samples.  
-- Closed and Open Lobster Fishing Seasons
- 3 Study areas partitioned into 3 habitat zones
- 10 traps were sampled 3 times in each area-habitat site.
- Size, CPUE, sex, & reproductive condition were monitored.



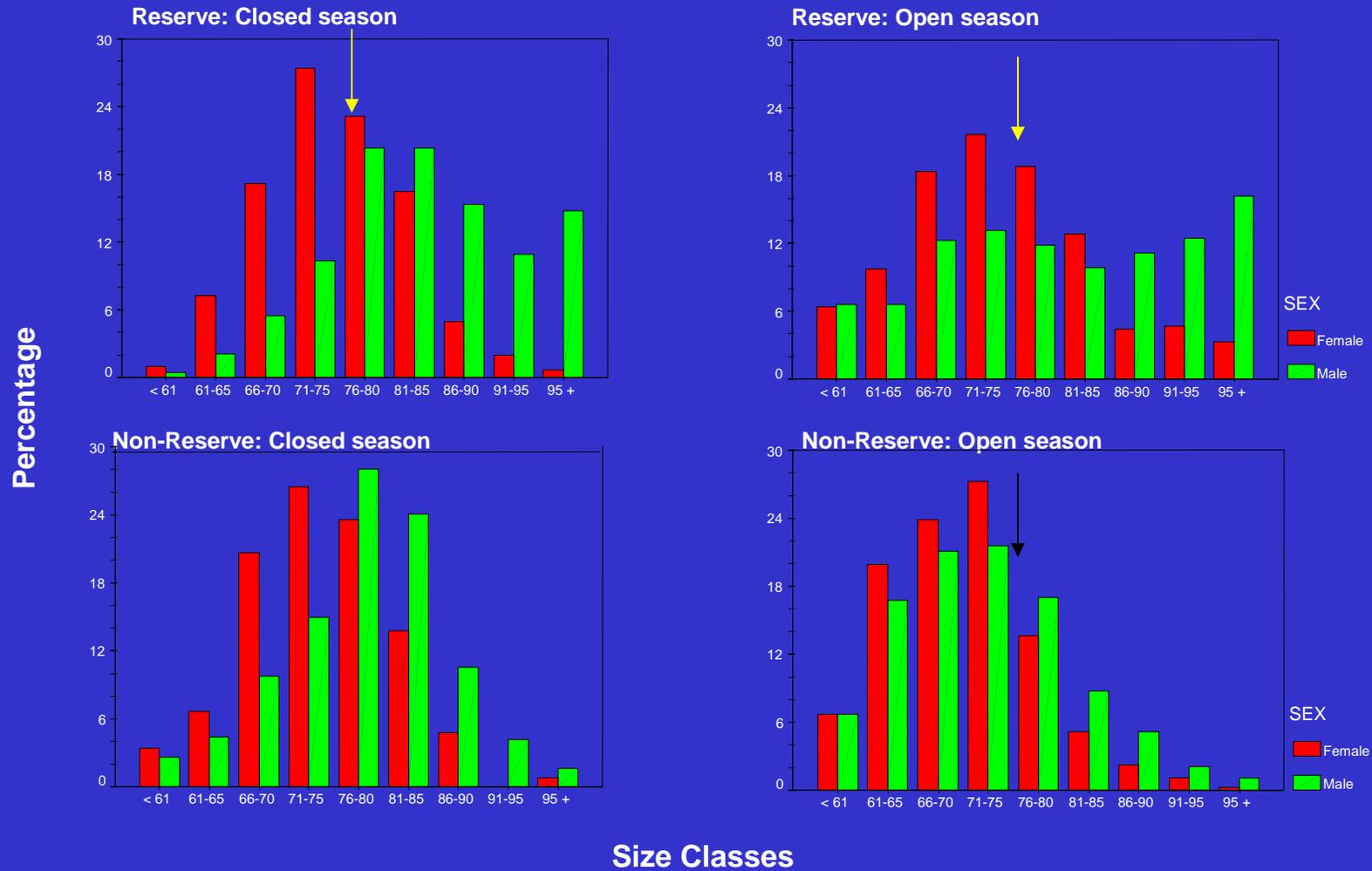


# Size Frequencies by Year and Area

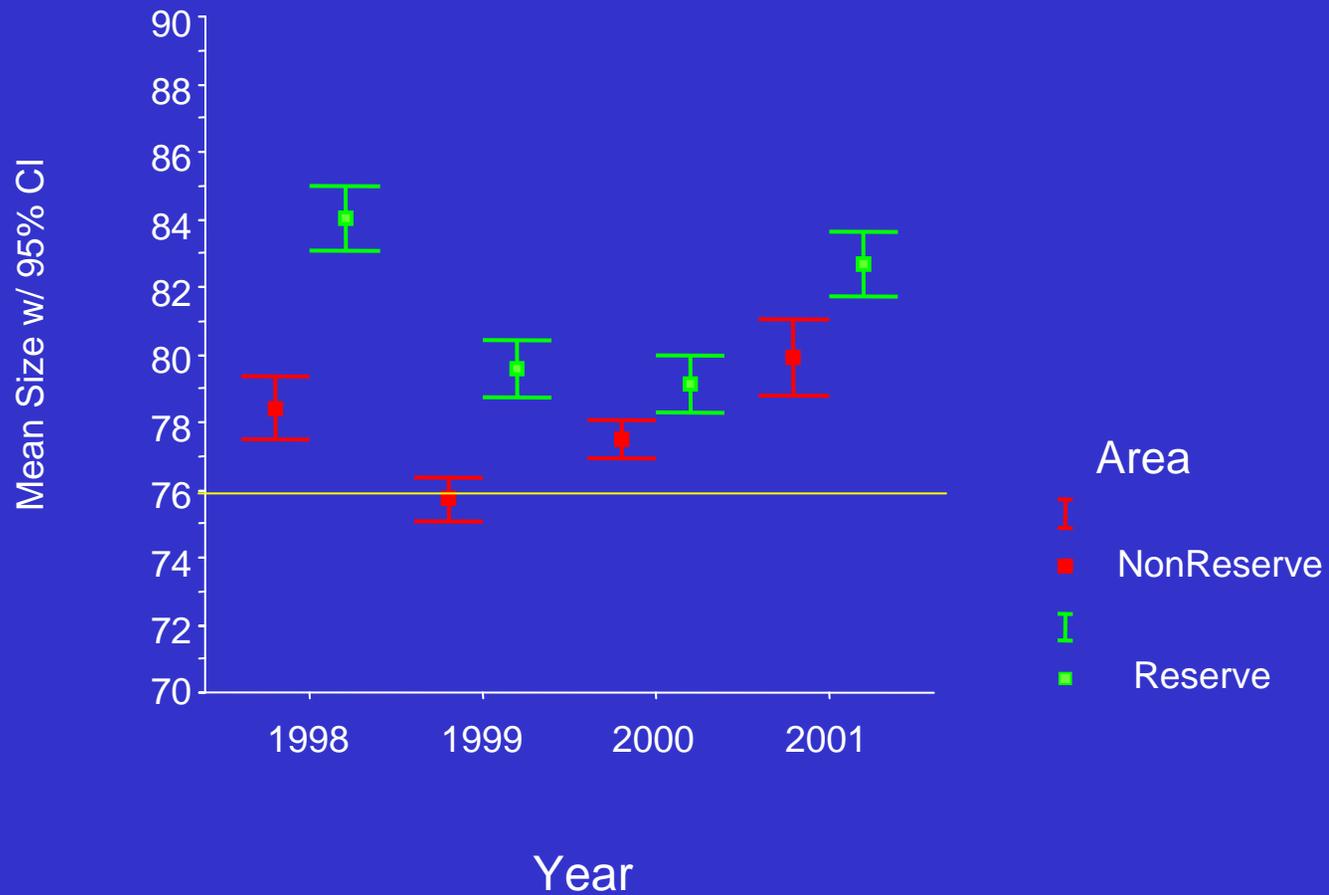


# Sex Ratios by Size, Area & Season

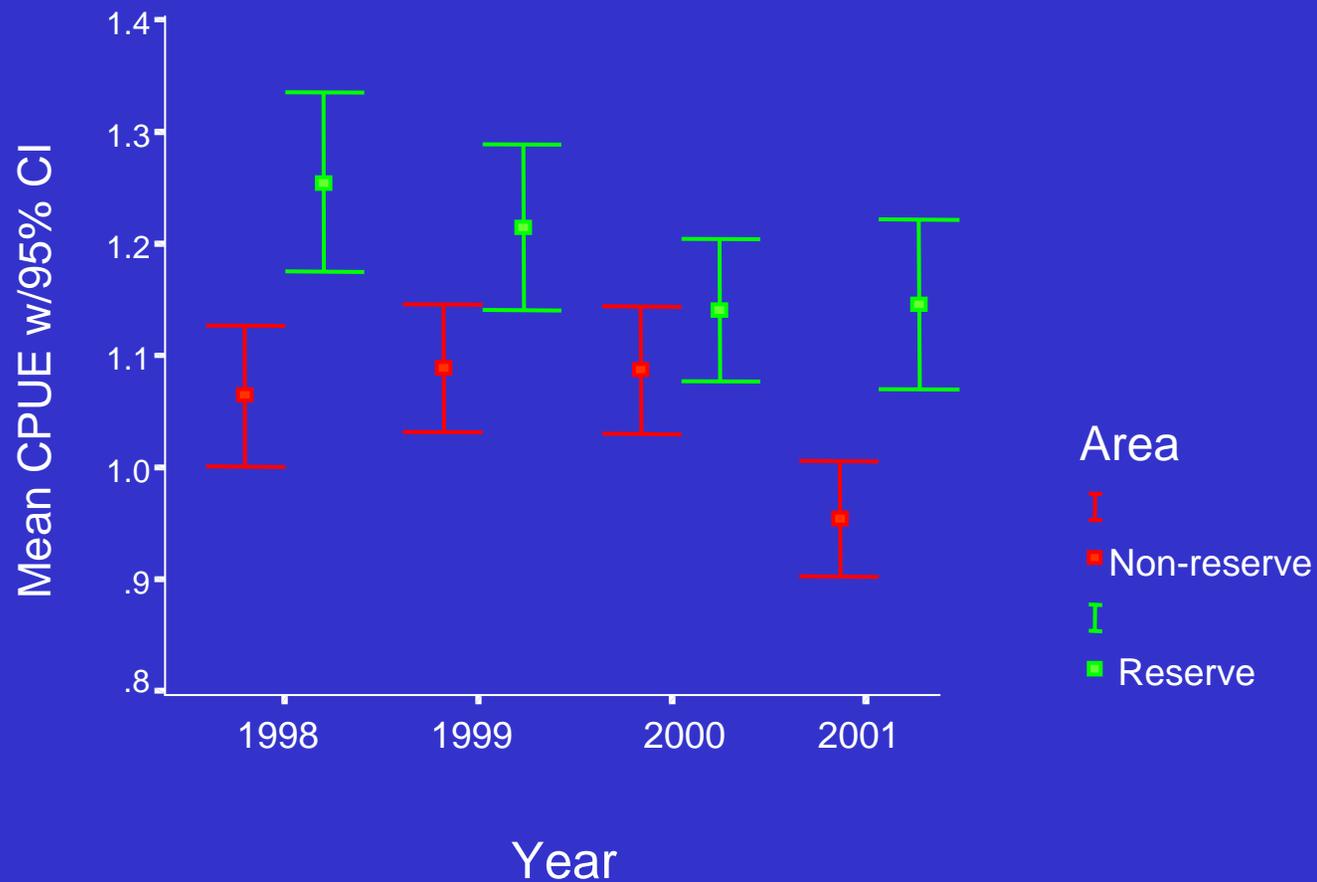
Arrow denotes minimum legal size of 76 mm CL



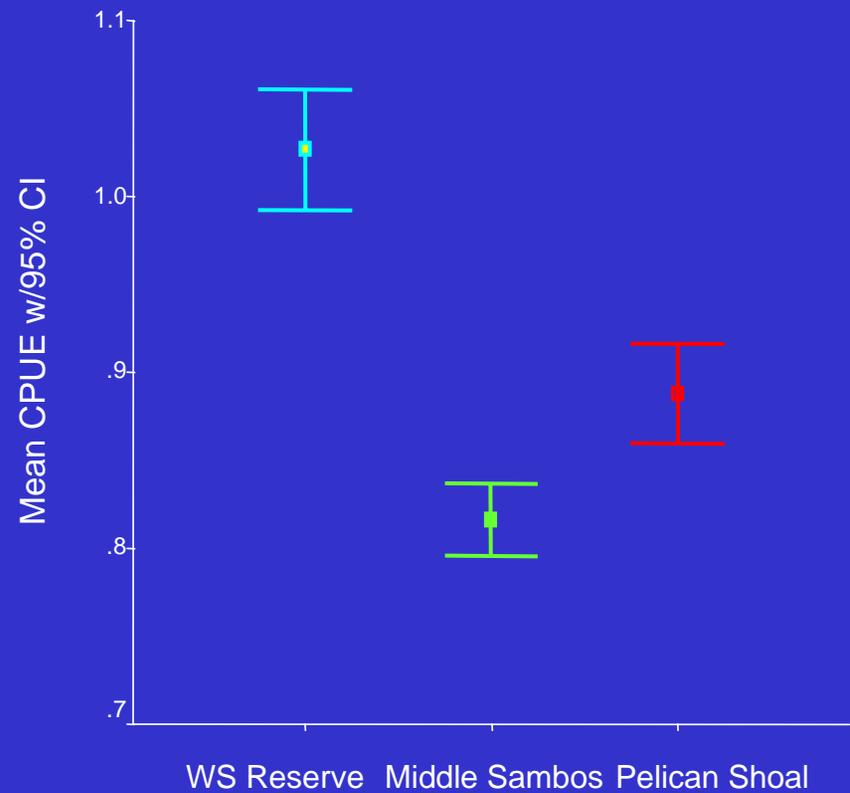
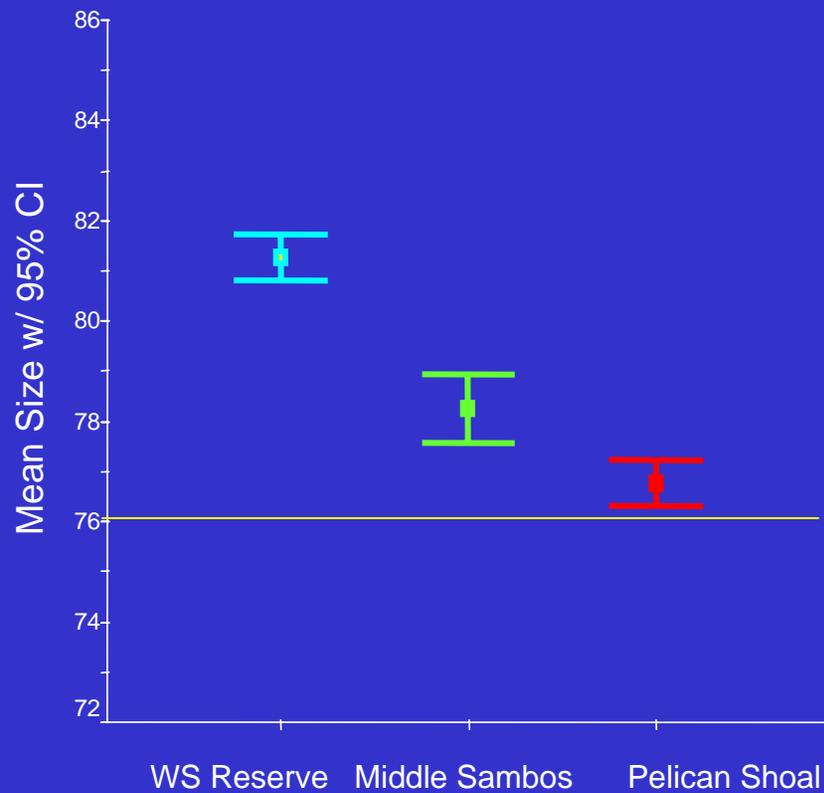
# *Size differences between reserve and non-reserve lobsters*



# *Relative lobster abundance differences among areas and years*



# *Size and abundance trends among sites*



AREA

## **Summary**

- ▣ **The Reserve exhibited larger lobster sizes and higher abundances than non-reserve areas.**
- ▣ **Differences between Reserve and non-Reserve lobster sizes have decreased over time and relative abundances differed in only in the 1<sup>st</sup> and 4<sup>th</sup> year of of the 4 year study.**
- ▣ **There is some evidence that spillover may be occurring but it appears to be a gradual process.**