

The Advantages of Big Data

Fisheries and Climate Workshop

26 OCT 15

James Tolan



- Landings Data
- MRIP (Formerly MRFSS)



20 per Month

N = 63,147



10-20 per Month

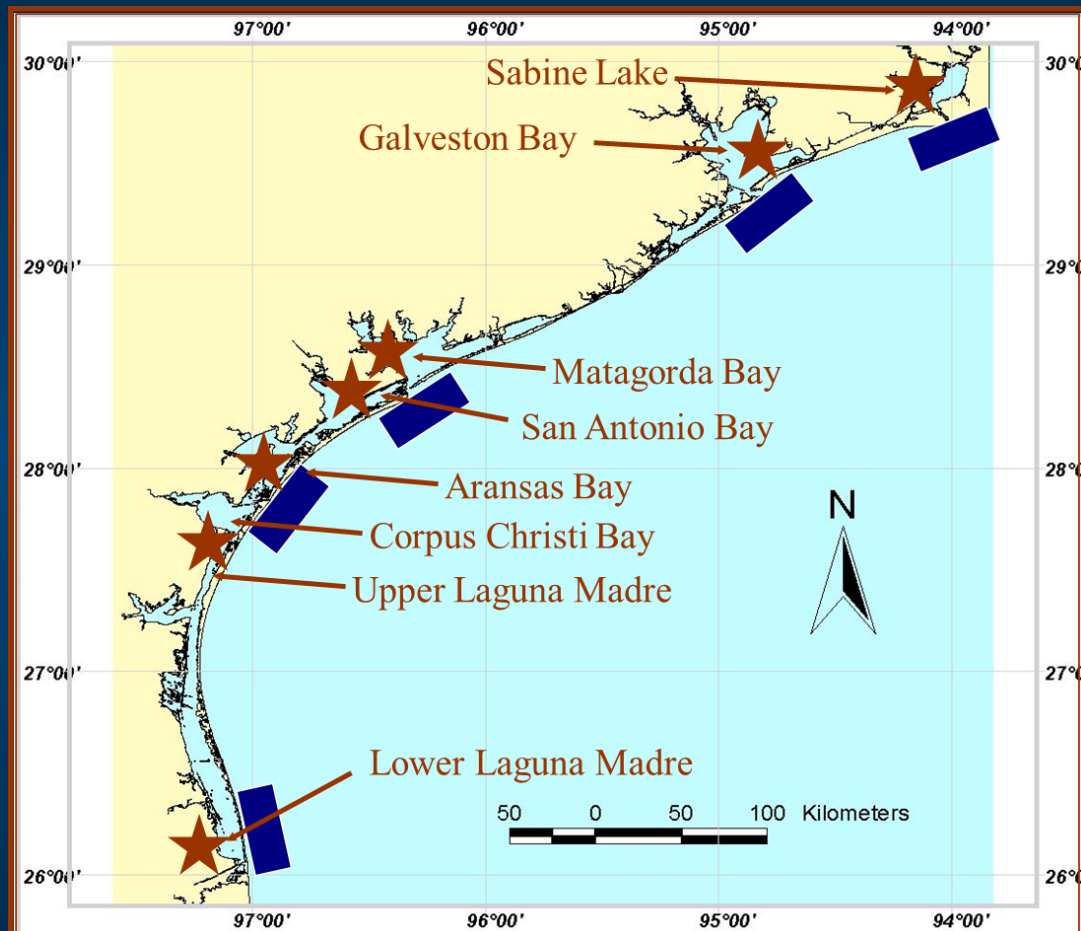
N = 58,735

N = 27,593



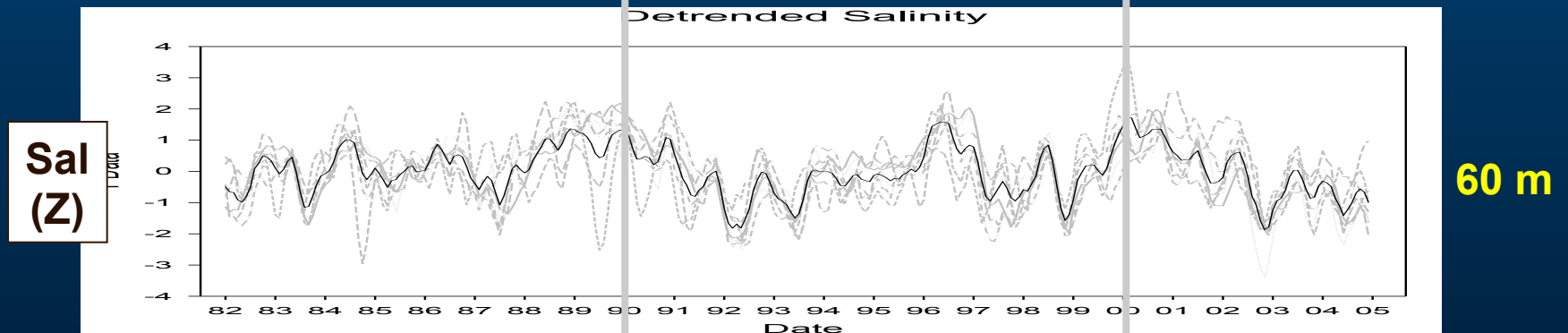
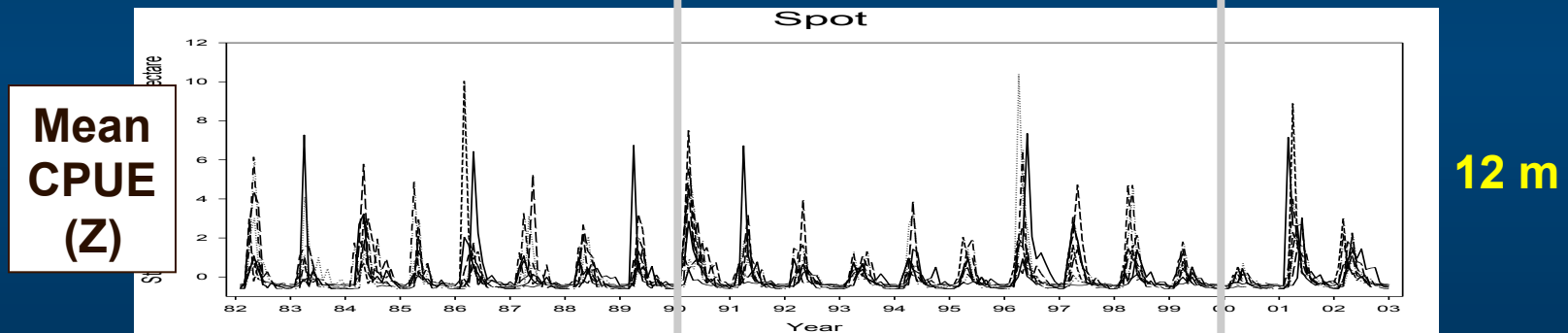
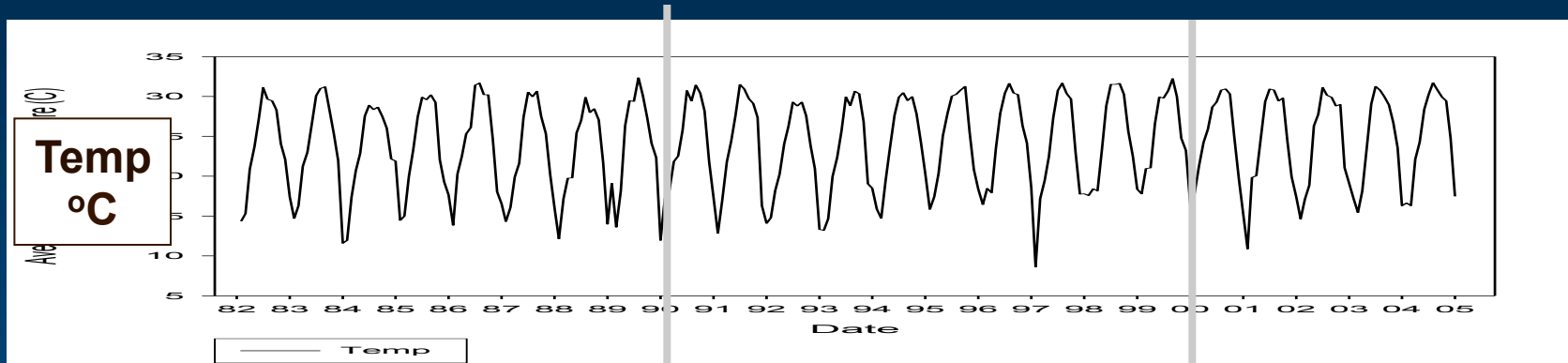
90 sets Split Between
Spring and Fall

N = 27,128

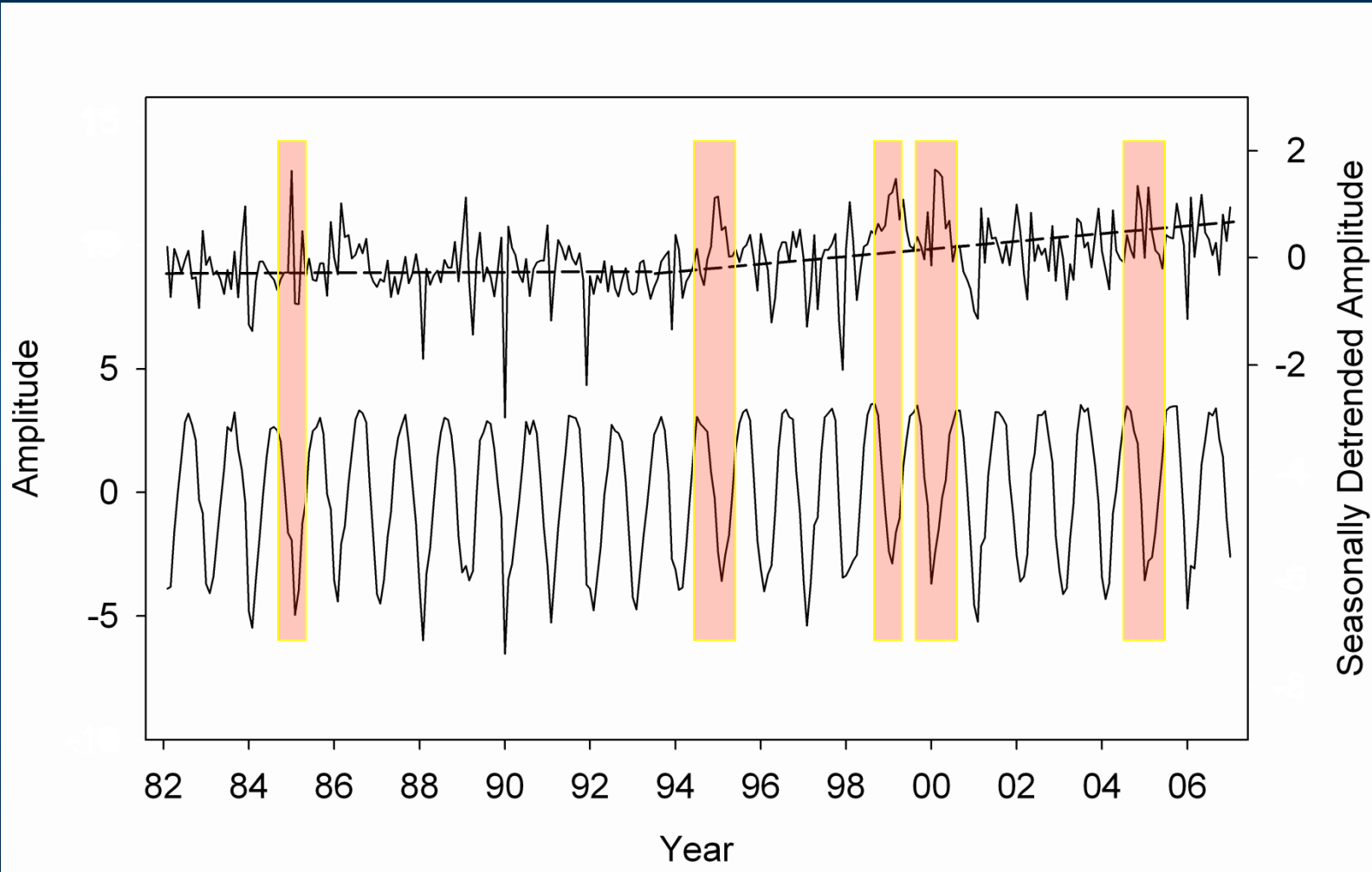


Nearly 40 Years of Continuous Records

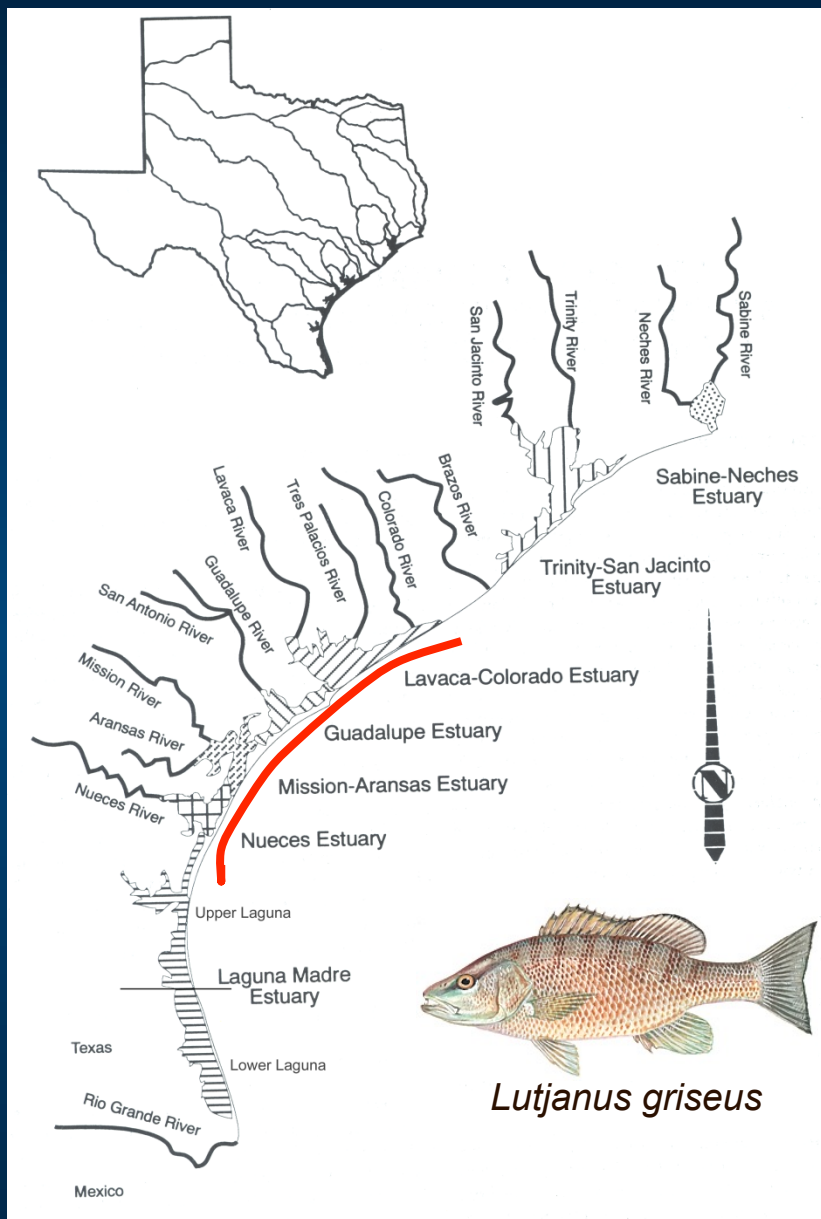
Inherent Periodicities



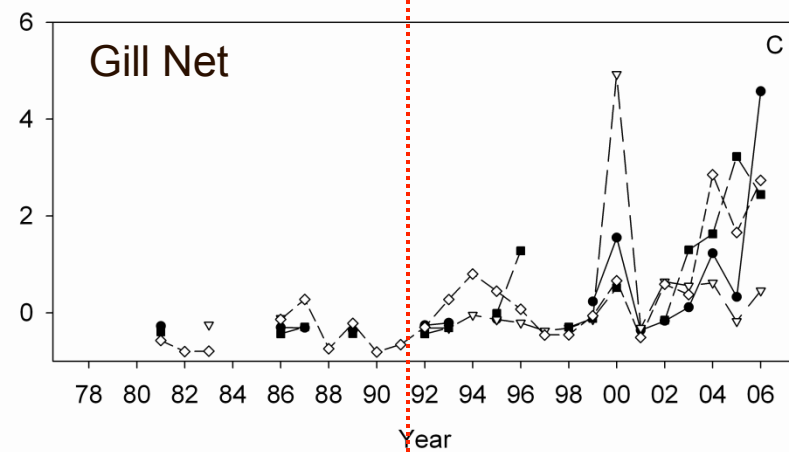
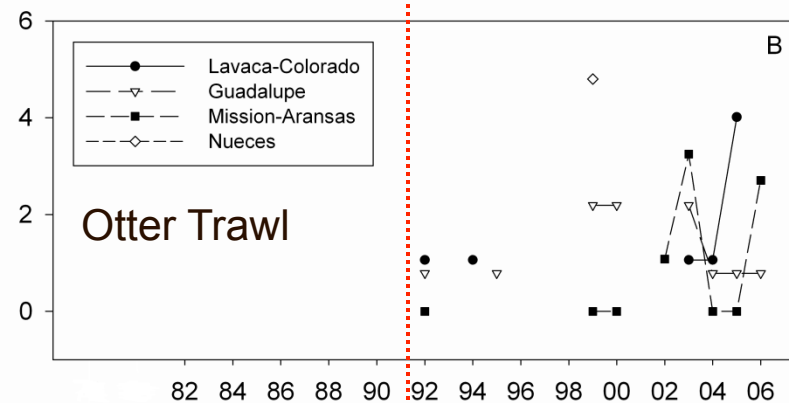
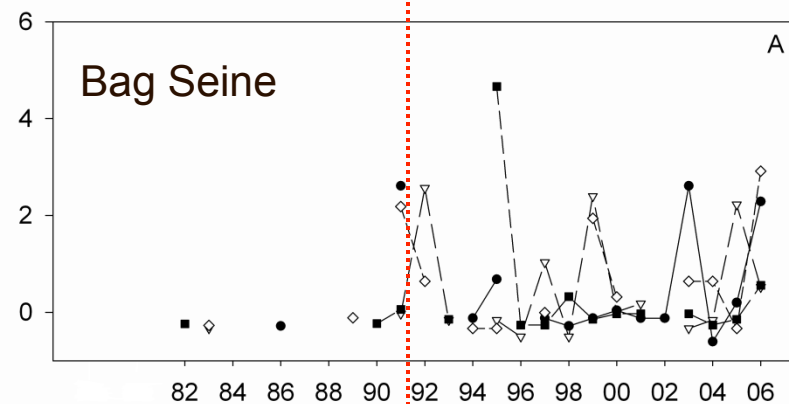
Temperature



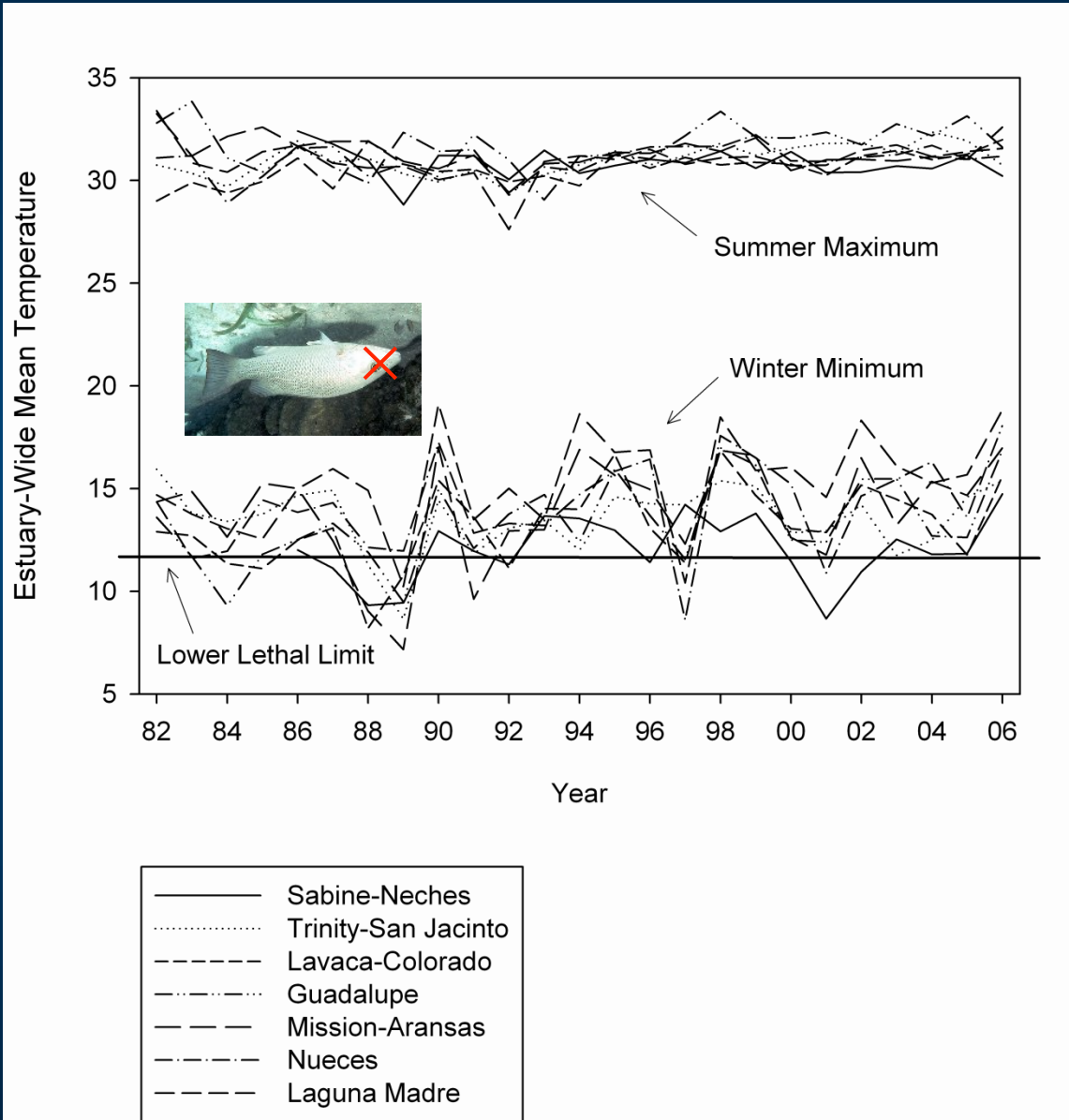
EOF Mode 1, explaining 96.4 % of the total variation;
Component loading scores range from +0.976 to +0.985



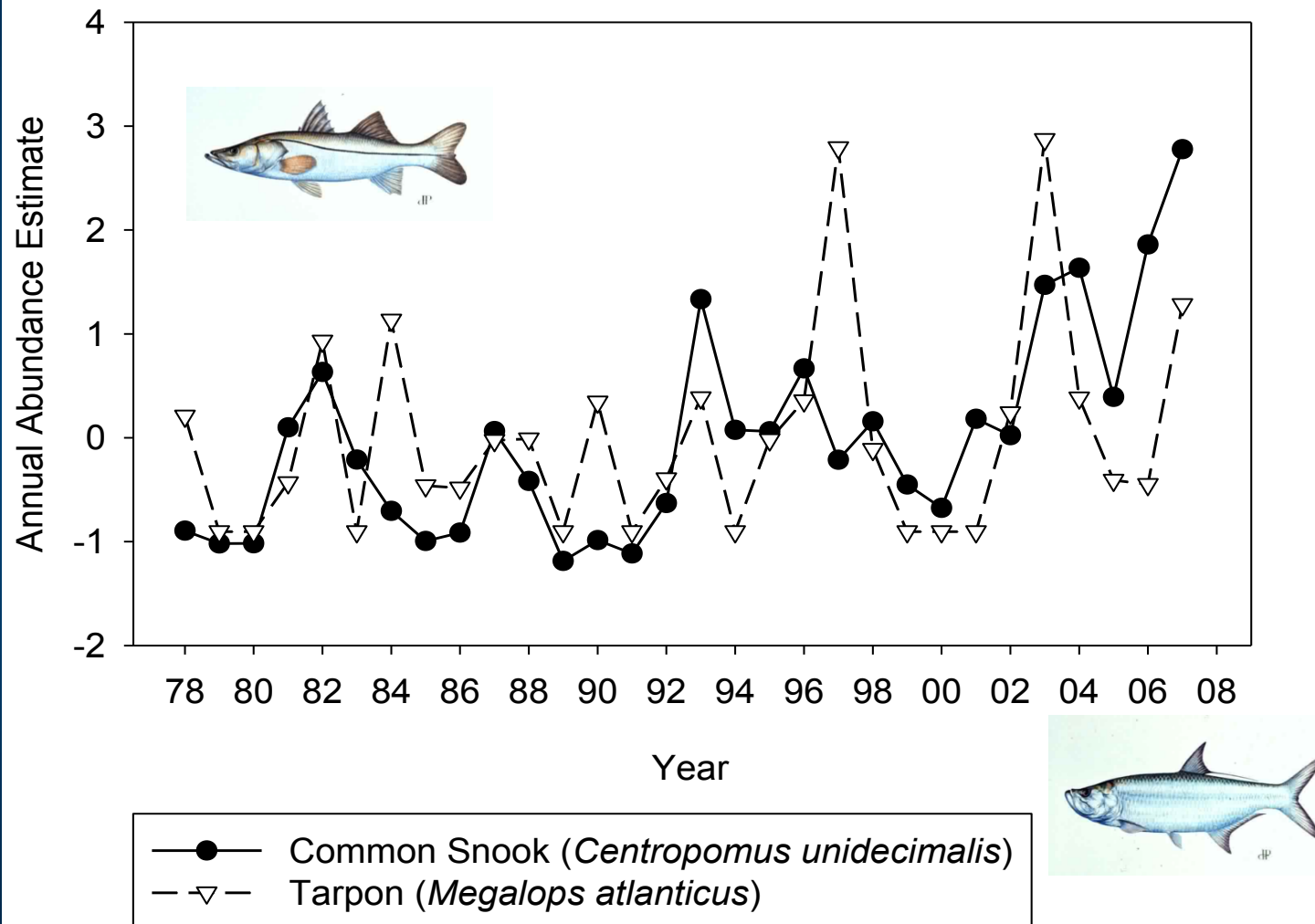
Standardized Yearly Abundance



Temperatures' Effect on Snapper

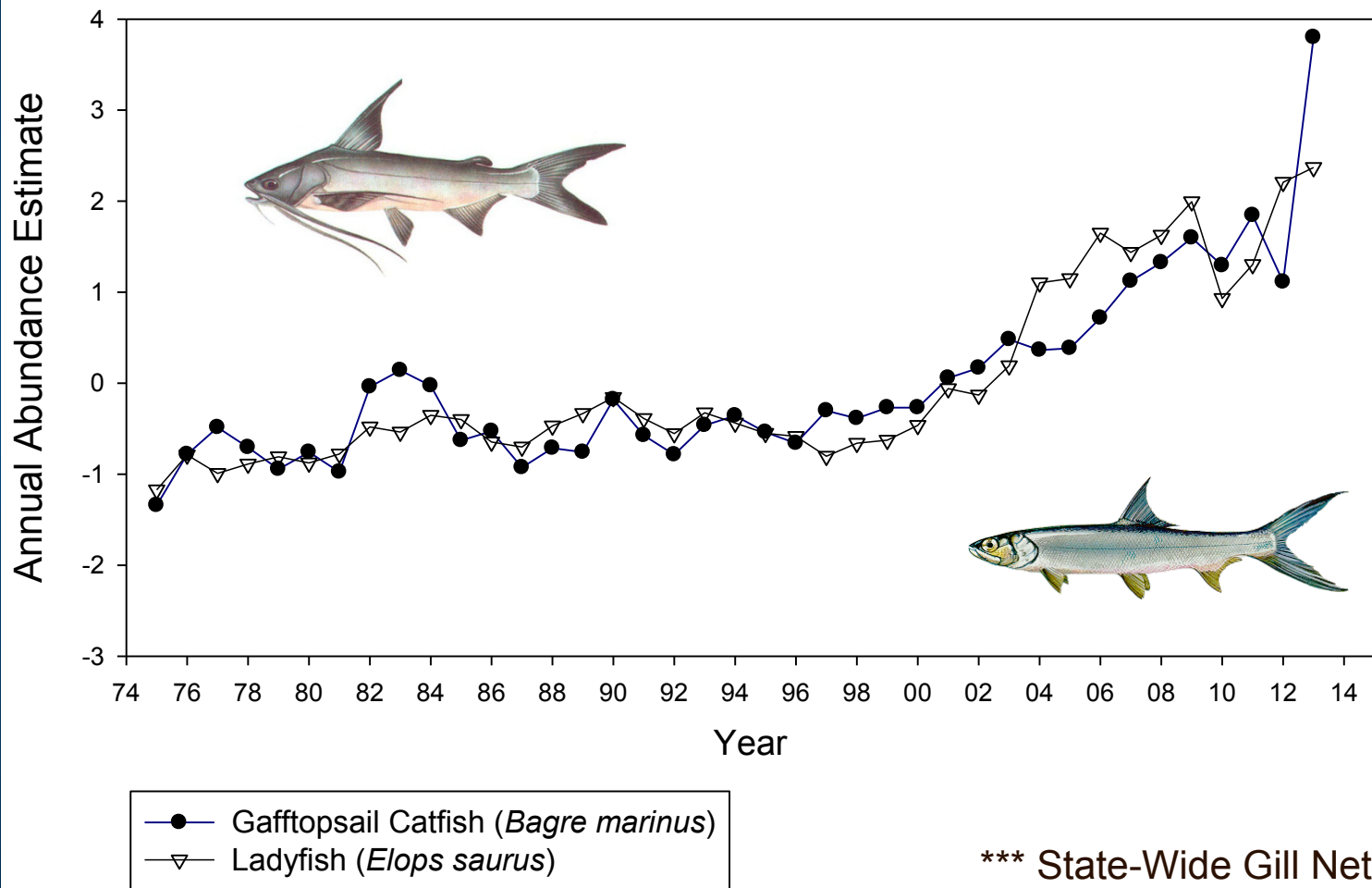


Other “Tropical” Species and Temperature

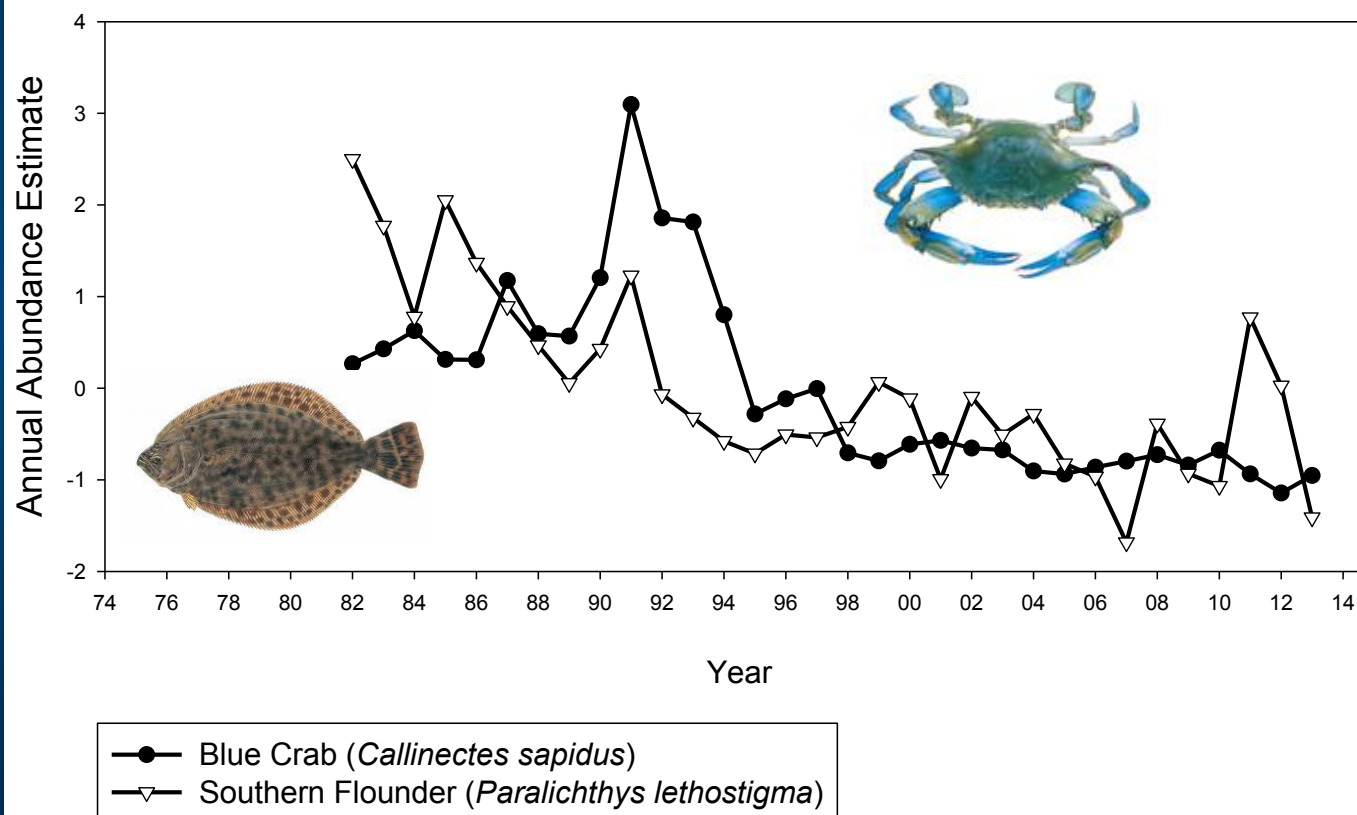


*** Lower Laguna Madre Gill Net Data

Less “Photogenic” Species



Negative Responses



*** Blue crab from Bay Trawls
*** Flounder from Gill Nets

Other “Tropical” Responses



Black Mangrove (Harbor Island, Port A)



Black Mangrove (coastal LA)



Red Mangrove (South Padre Island)



<http://www.nwrc.usgs.gov/factshts/2004-3125/2004-3125.htm>

Red Tide Frequency

