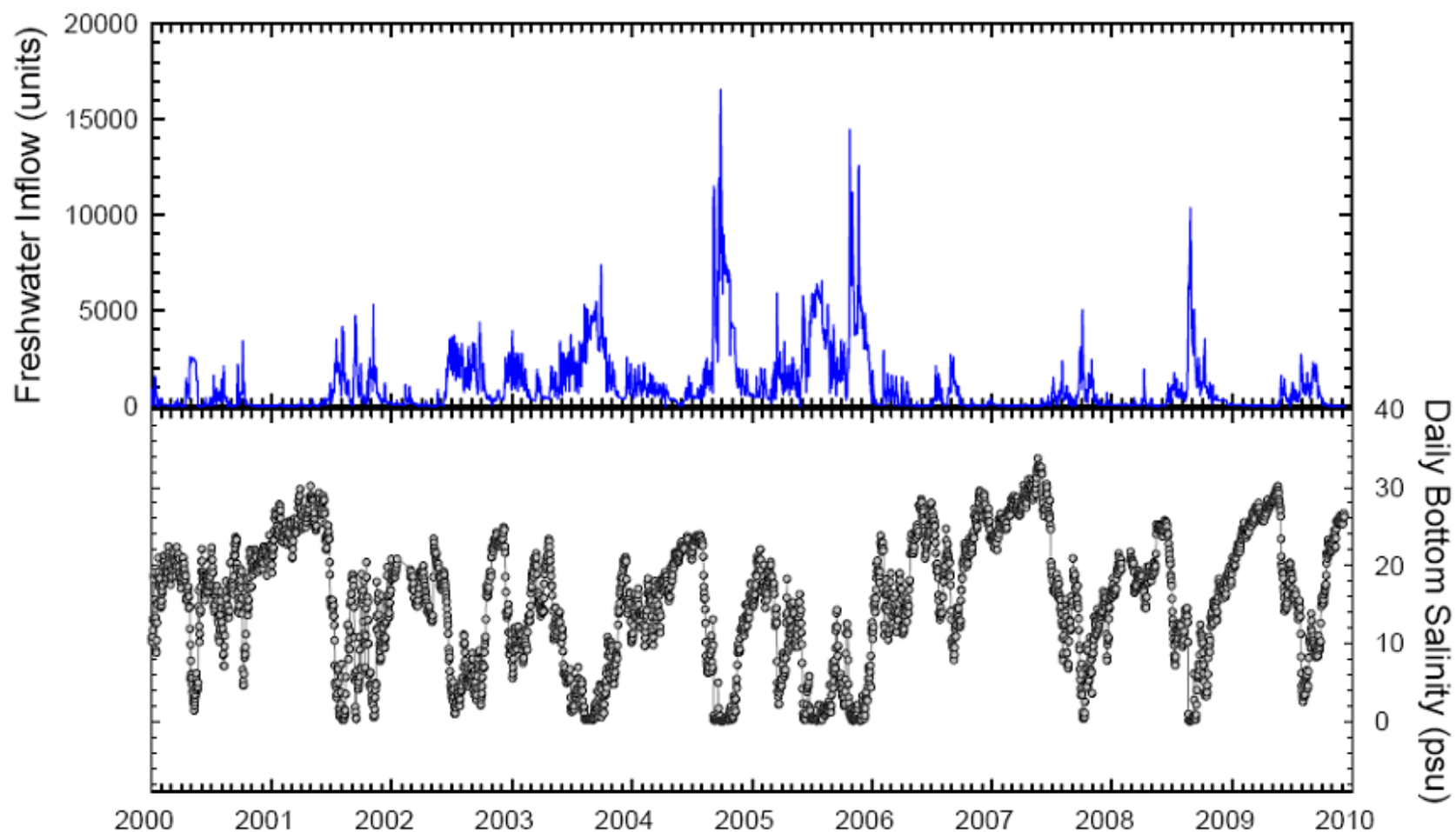


Salinity in Everglades System Estuaries and Restoration Issues

- Comprehensive Everglades Restoration Plan (CERP) includes “Northern” and “Southern” Estuaries
 - Northern = St. Lucie, Caloosahatchee, IRL, Lake Worth
 - Southern = Biscayne Bay, Florida Bay, SW Shelf
- Issues:
 - Northern experience **disruptive, rapid changes** due to release from Lake O
 - Southern also experience **unstable patterns and timing**, but also suffer from **hypersalinity**
 - In both Northern and Southern, discharges of freshwater also carry high nutrient concentrations/loads. Salinity and nutrients linked in most cases.
 - *Southern estuaries P-limited and highly oligotrophic*
- Restoration Goals:
 - More natural quantity, quality, timing, delivery of freshwater to achieve more stable mesohaline zones

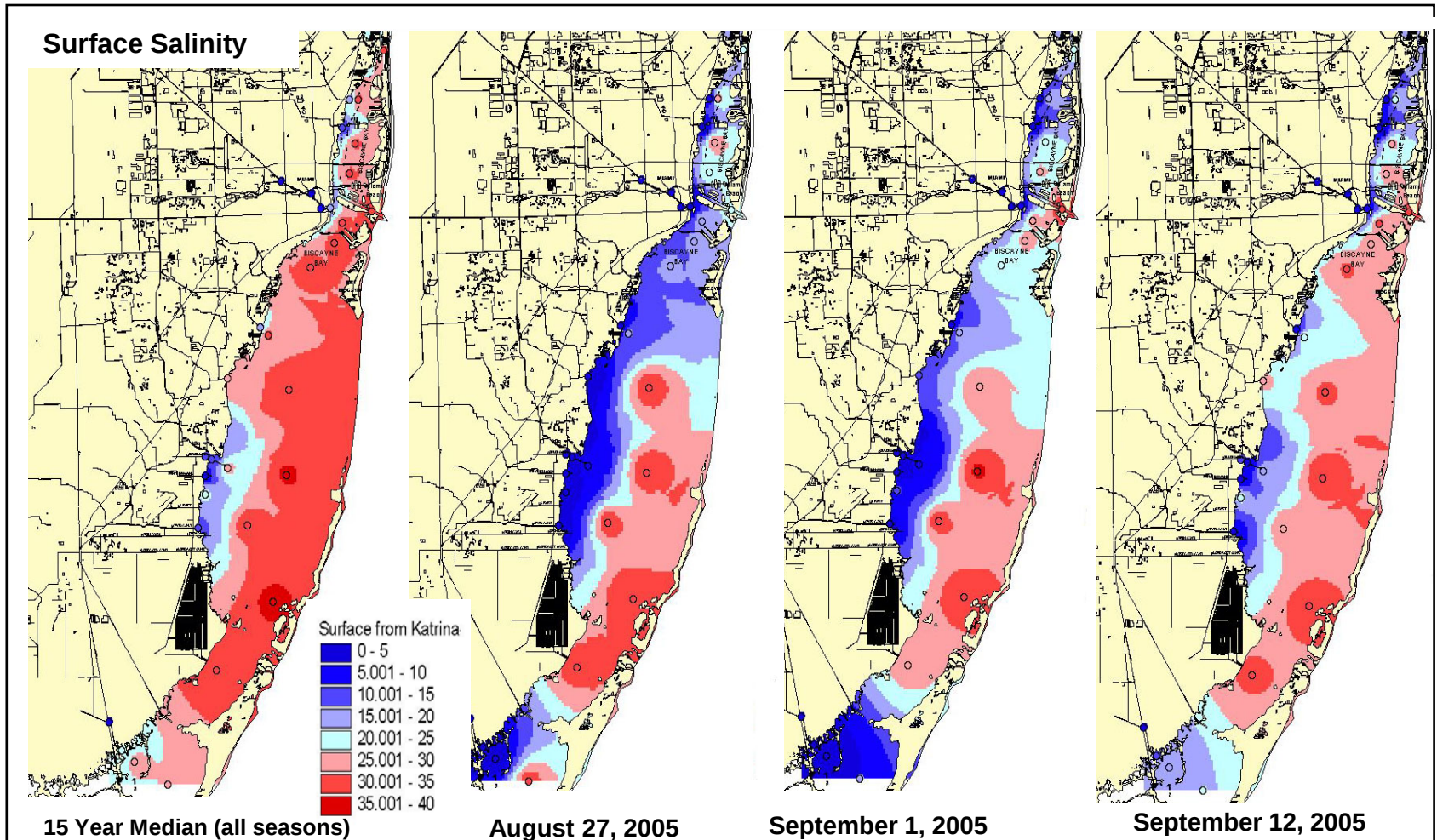
Sum of basin flows, excluding north fork contributions, and bottom salinity at site SE03 in the St. Lucie Estuary



Key

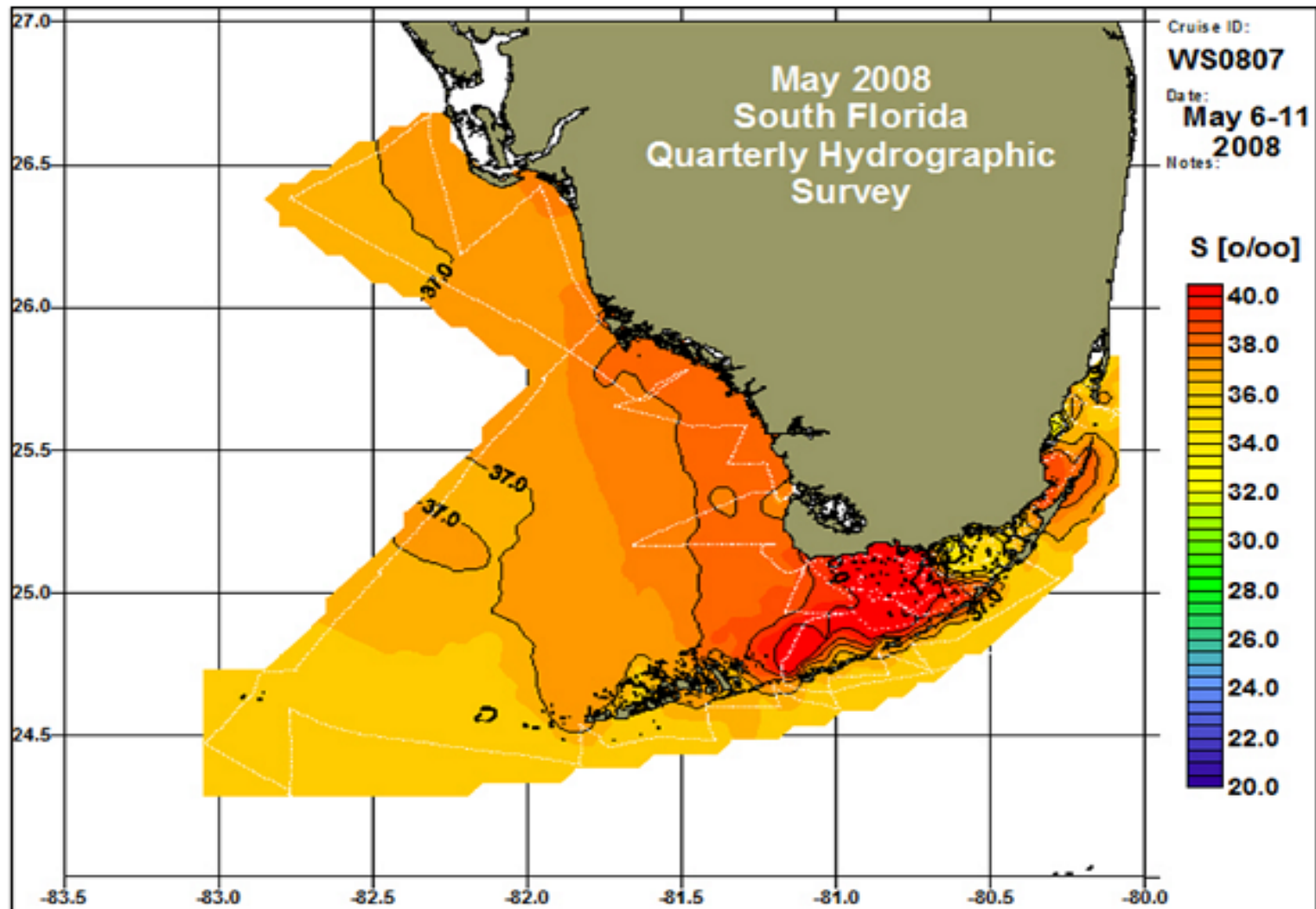
psu– practical salinity units

Biscayne Bay Salinity from Extreme Discharges in Hurricane Katrina



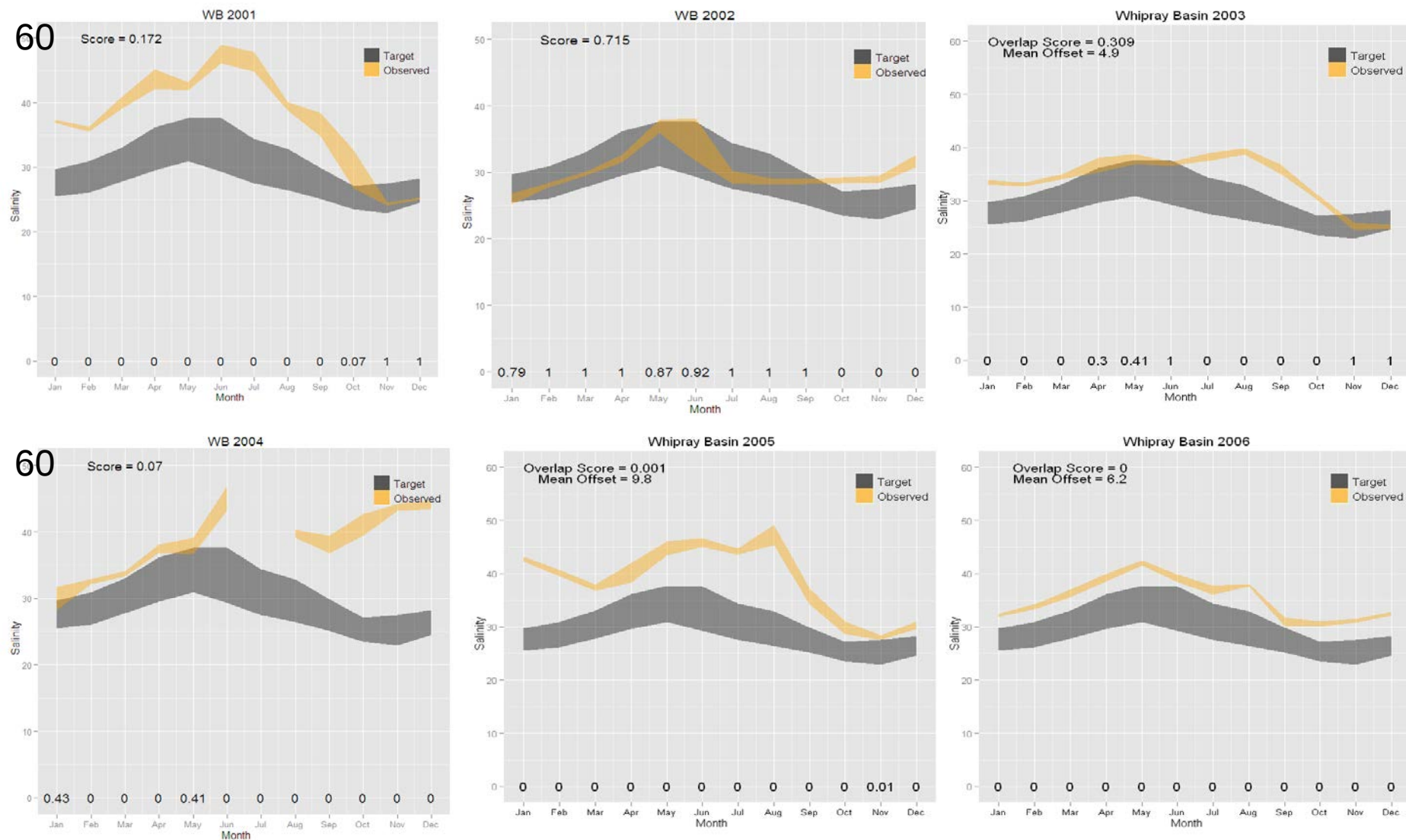
Southern Estuaries Experience Hypersalinity (especially in dry season or drought)

Representative map of surface salinity from combined coastal surveys



Note: The cruise tracks are shown in white.

Florida Bay (Whipray Basin) Salinity Compared to Modeled Restoration Target



Annual salinity results from 2001 through 2006

For More Information on CERP and Estuary Monitoring...

Summary information on CERP “northern estuary” water quality and salinity stations, targets and results:

http://www.evergladesplan.org/pm/ssr_2009/hc_ne_wq_results.aspx

Summary information on CERP St. Lucie estuary stations, targets and results:

http://www.evergladesplan.org/pm/ssr_2009/hc_ne_wq_results_sle.aspx

Summary information on CERP Southern Coastal Systems stations, salinity targets and results:

http://www.evergladesplan.org/pm/ssr_2009/hc_scs_salinity_results.aspx

Summary information on Biscayne Bay salinity patterns and management issues:

http://www.sfrestore.org/rrct/bbay/meetings/2011_meetings/011411/Biscayne_Bay_Salinity_research.pdf

http://www.sfwmd.gov/portal/page/portal/xrepository/sfwmd_repository_pdf/bisc_n_p_gb_presentation_20110113.pdf

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