

Exploring Estuarine Sea Level Fluctuations and Dynamics Using the Surface Water and Ocean Topography Mission: A Multi-System, Multi-Timescale Analysis

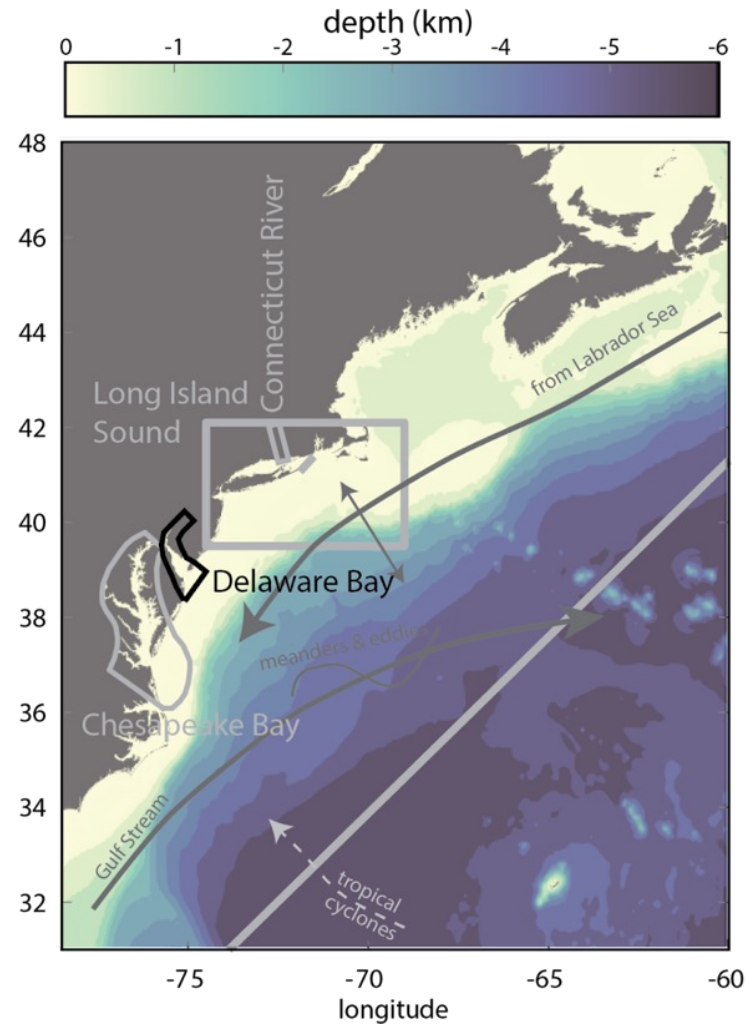
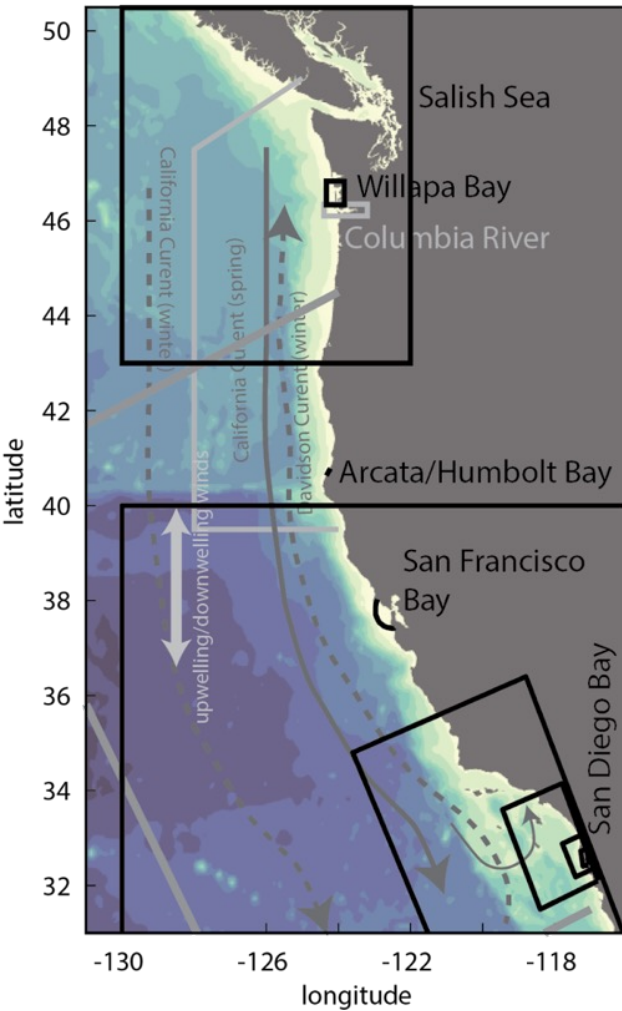
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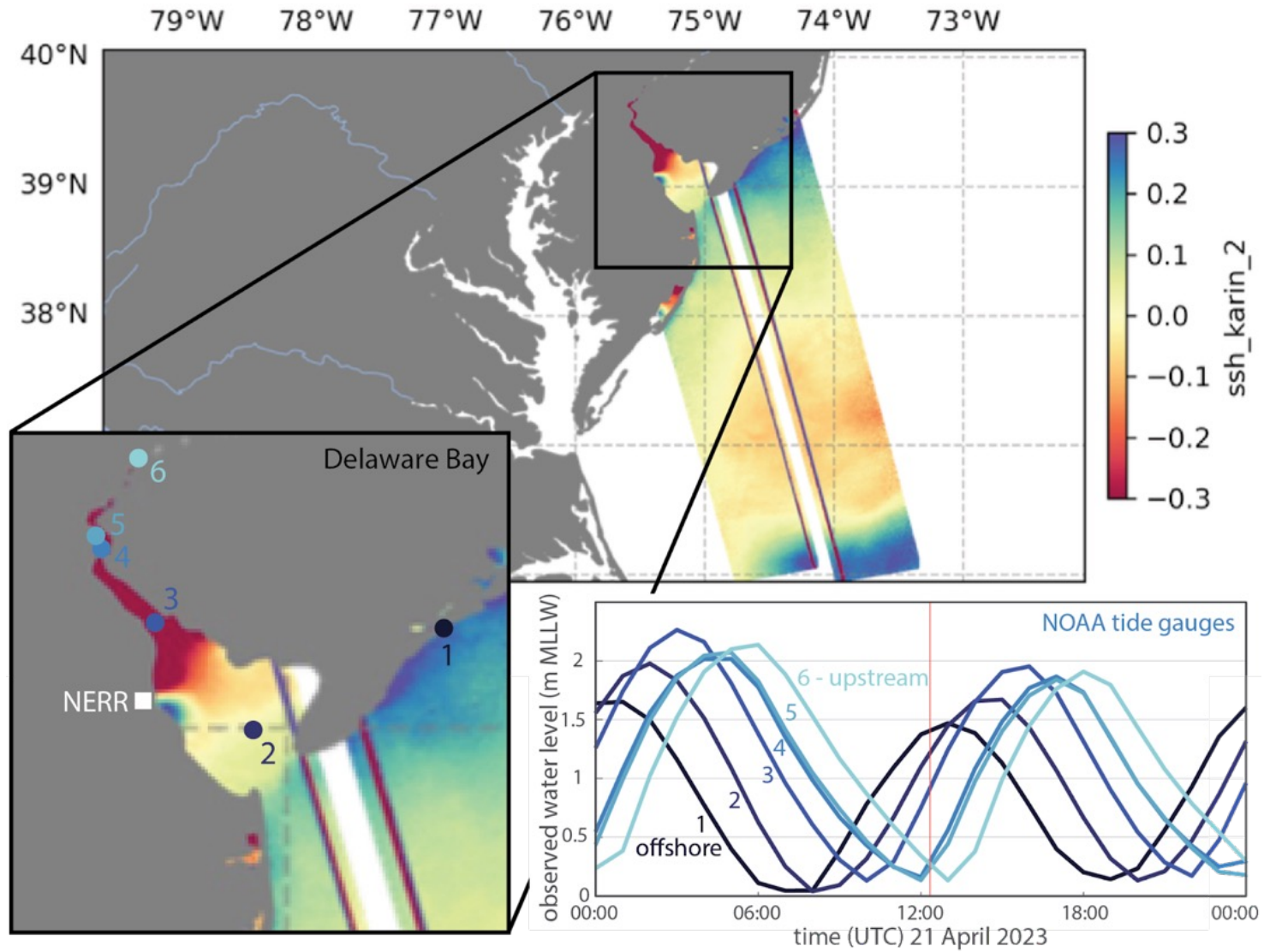


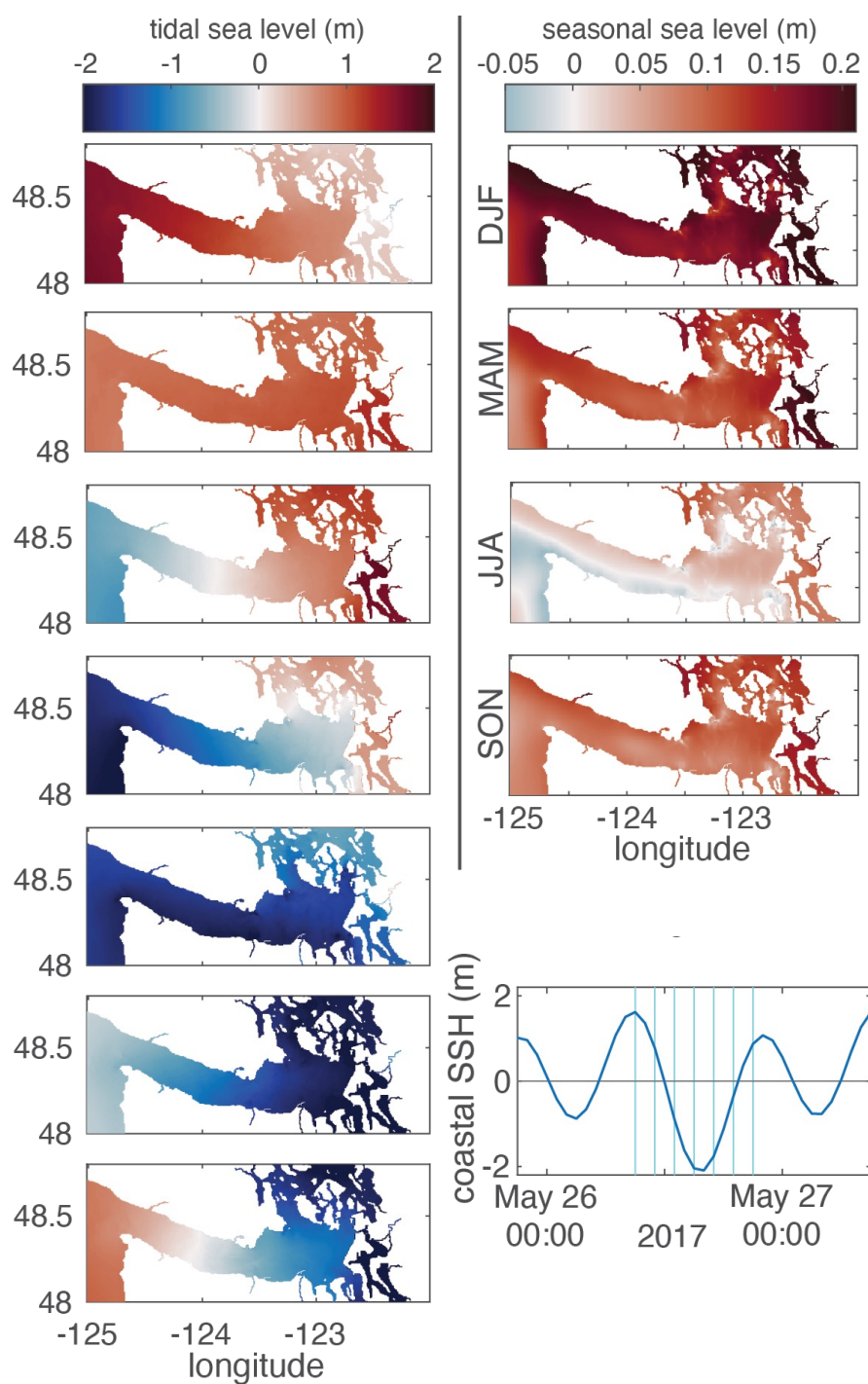
resolvable estuary scales



Estuarine System	estuary type	area (km ²)	length (km)	width (km)	regional model	model Δx	water level gauges
Salish Sea	fjord	18000	580	1	ROMS	0.5-1.5	8 NOAA, 3 NERR, 19 DFO
Willapa Bay	SIPS/well-mixed	310	35	2	ROMS	0.2	1 NOAA
Humboldt Bay	bar-built	65	21	0.5	EFDC		1 NOAA
San Francisco Bay	Partially-mixed	4000	150	2	FVCOM	0.01- 3.9	7 NOAA, 5 NERR
San Diego Bay	seasonally inverse	49	20	1	COAWST	0.007-0.2	1 NOAA, 1 NERR, 3 CPG
Delaware Bay	Partially-mixed	2030	160	1	ROMS	0.005-0.45	11 NOAA, 3 NERR

tidal corrections assessment





ocean/estuary sea level propagation on both tidal and subtidal time scales

