

# Mixing and Circulation in the lower (estuarine) Hudson River

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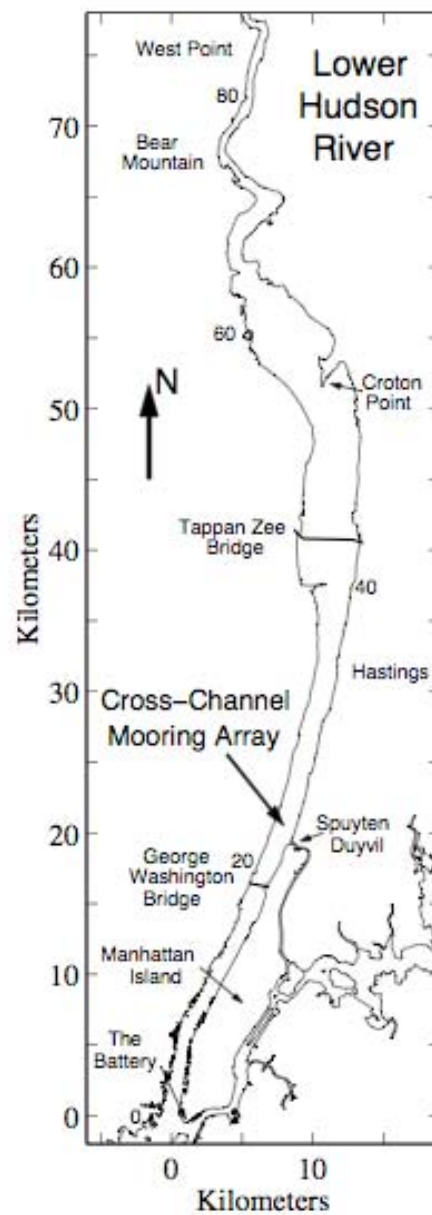
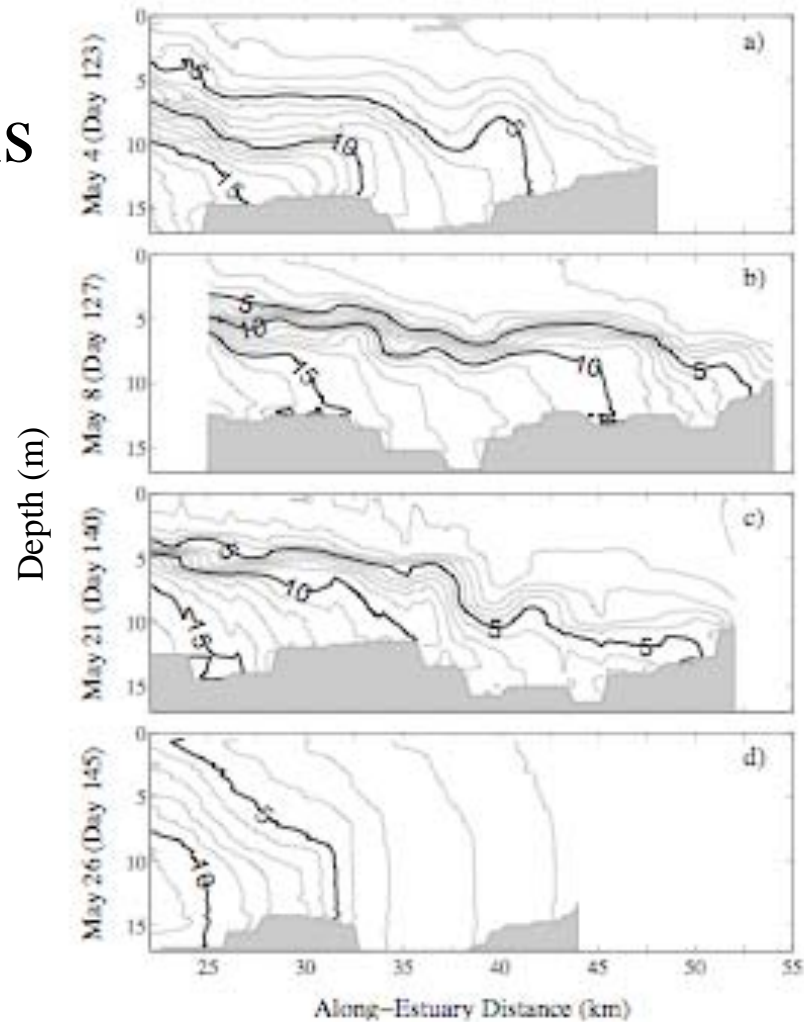


Figure 1: Map of the lower Hudson River showing the location of the cross-channel mooring array, approximately 23 river kilometers north of the Battery at the southern tip of Manhattan Island. The numbers along the river indicate river kilometers from the Battery.

# Along-river Salinity Sections



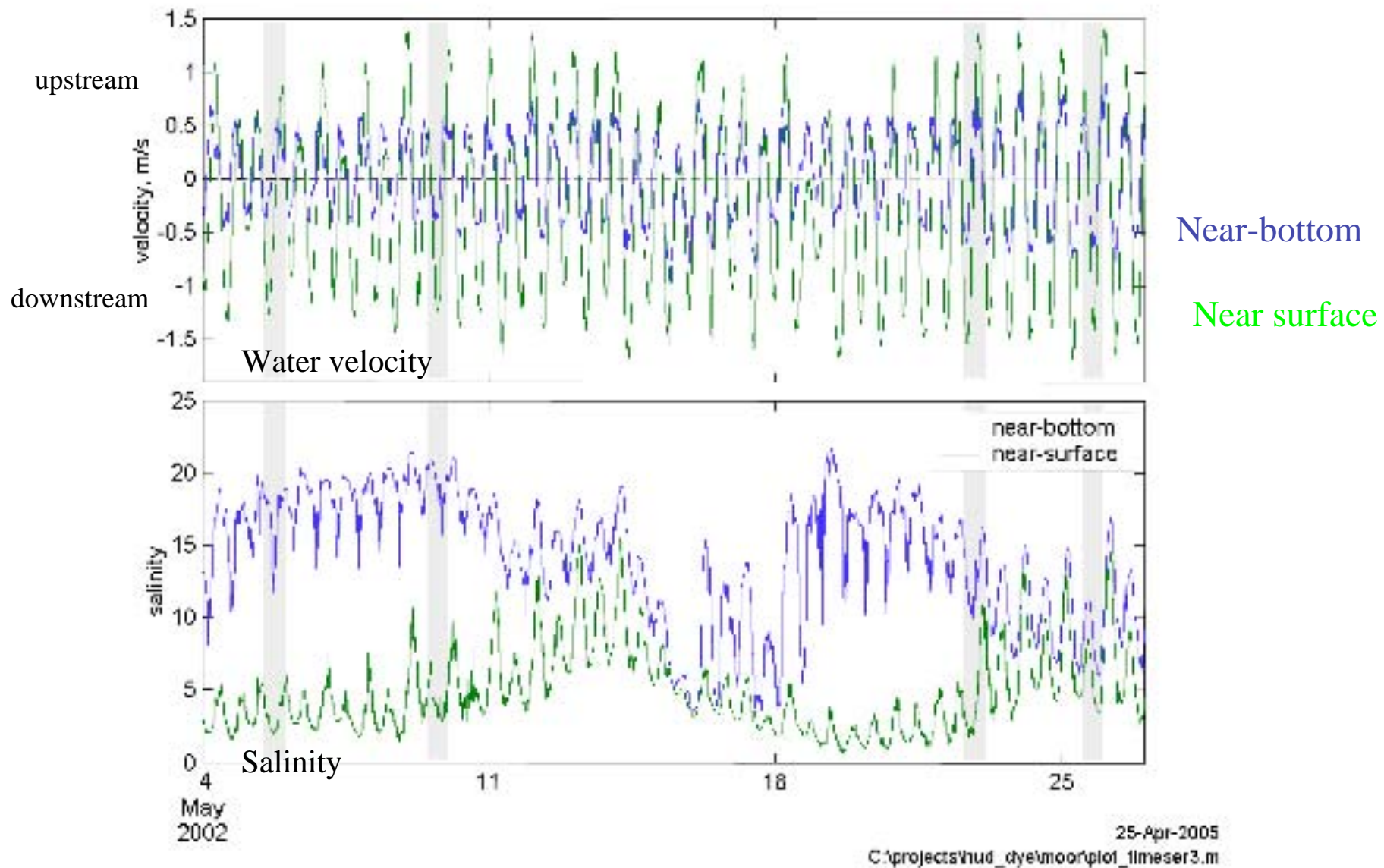
GWB

Alpine

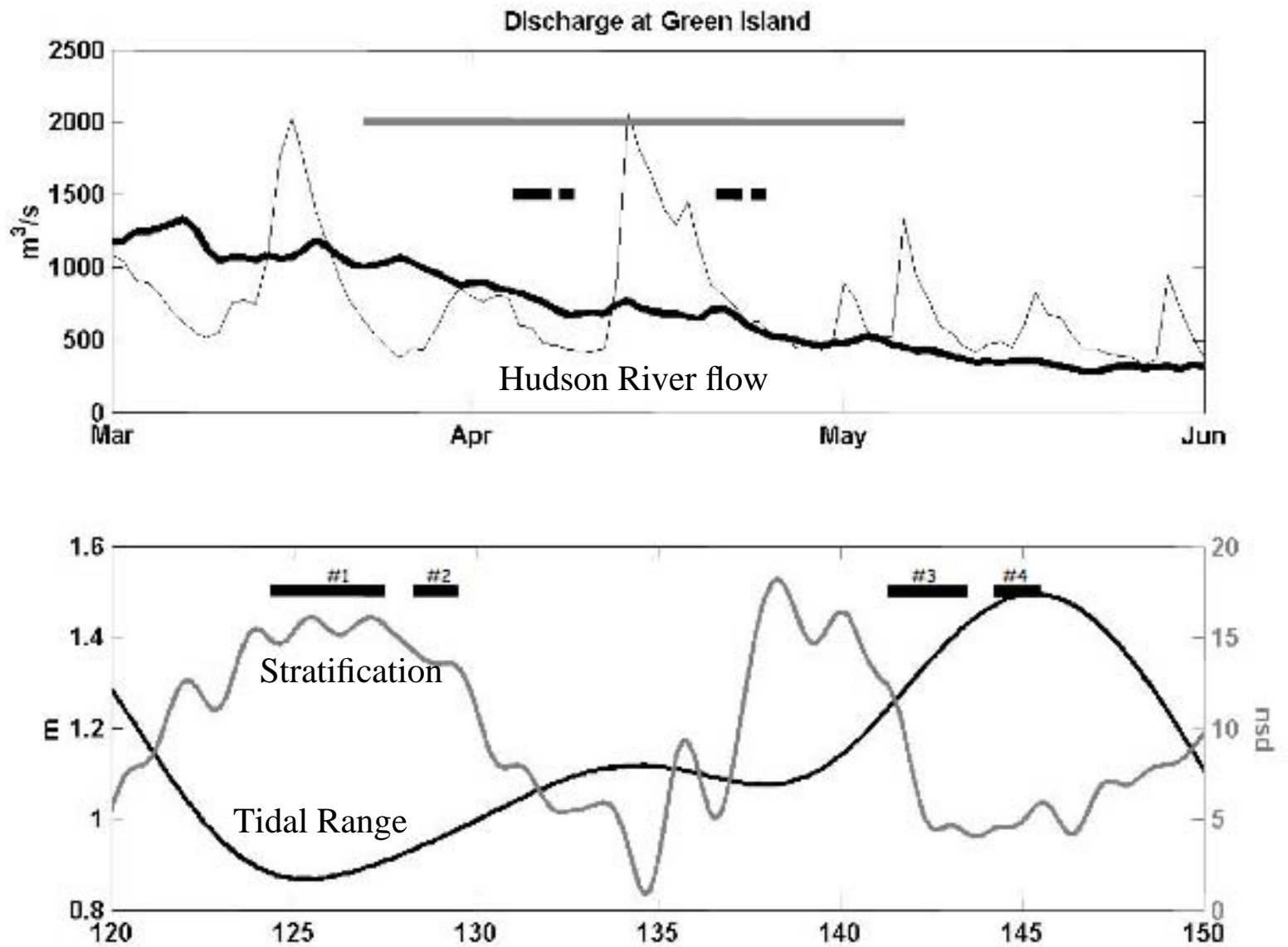
TZ

Haverstraw

Figure 12: Along-estuary salinity profiles obtained from shipboard hydrographic surveys. Individual casts were advected either forward or backward in time to minimize the effect of tidal advection and bring the casts to a common time in a tidal cycle.



**Figure 3** Upper panel) Near surface (green) and near bottom (blue) currents from mooring site 4. Flooding current i



**Figure 2** A) Thick line shows mean daily discharge based on 56 year record at Green Island. Thin line shows discharge at Green Island in 2002. Grey line depicts duration of mooring deployment and black dashes depict the duration of each dye experiment. B) Tidal range at the Battery (black line) and subtidal surface to bottom salinity difference from mooring 4 (grey line). Thick black dashes depict duration of each dye experiment.

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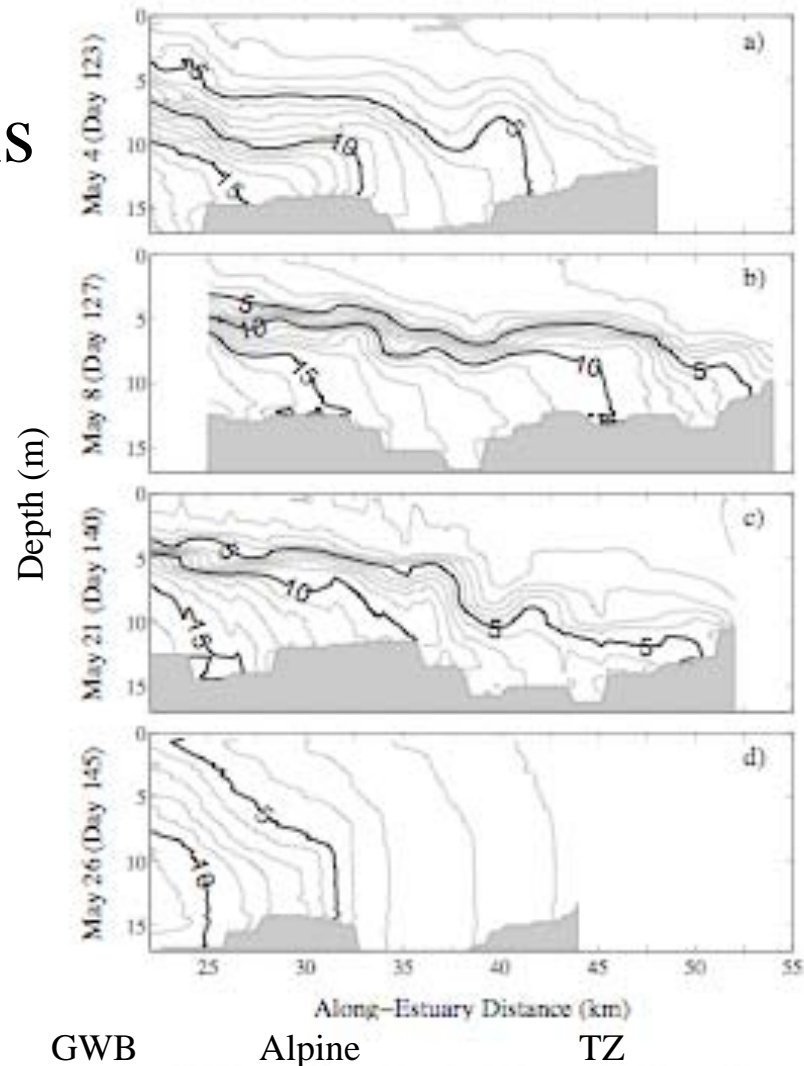


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