



ONGOING WORK: Toward beach water quality modeling using Delft3D



CARICOOS



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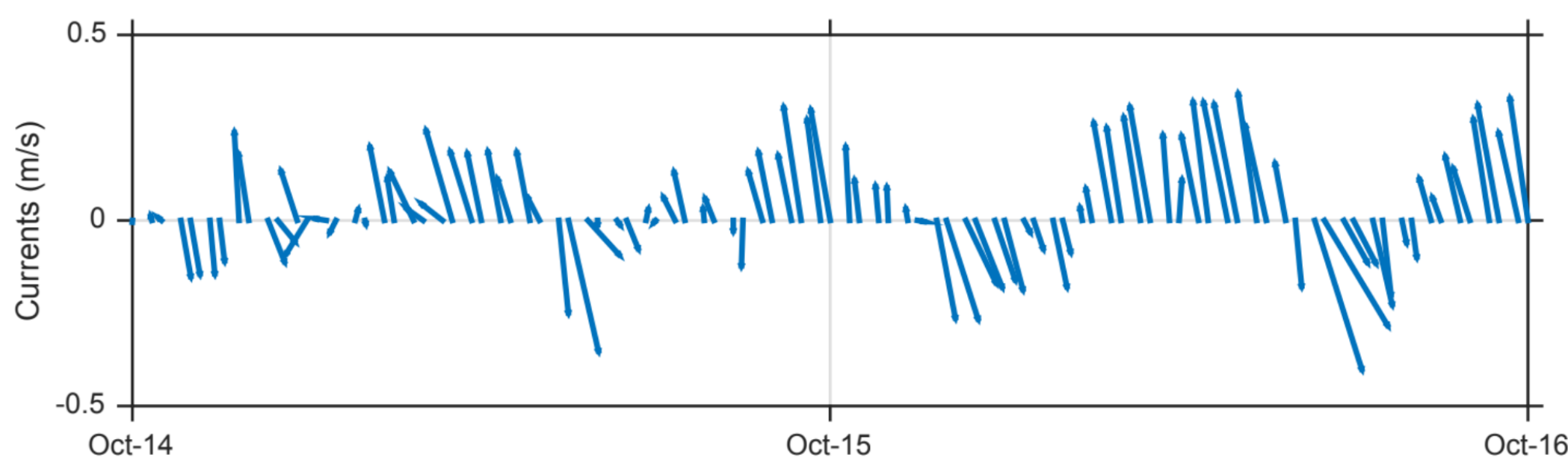
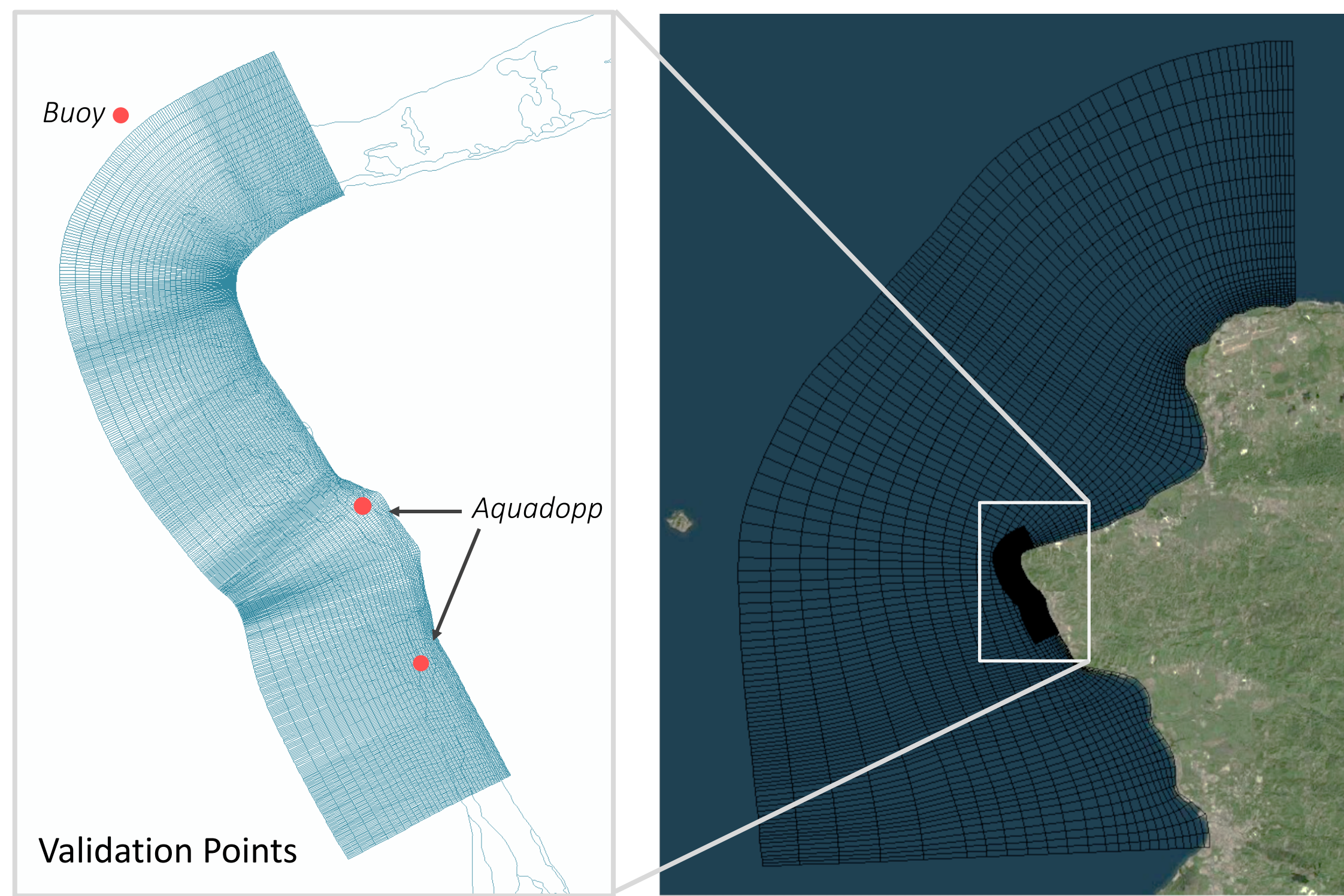
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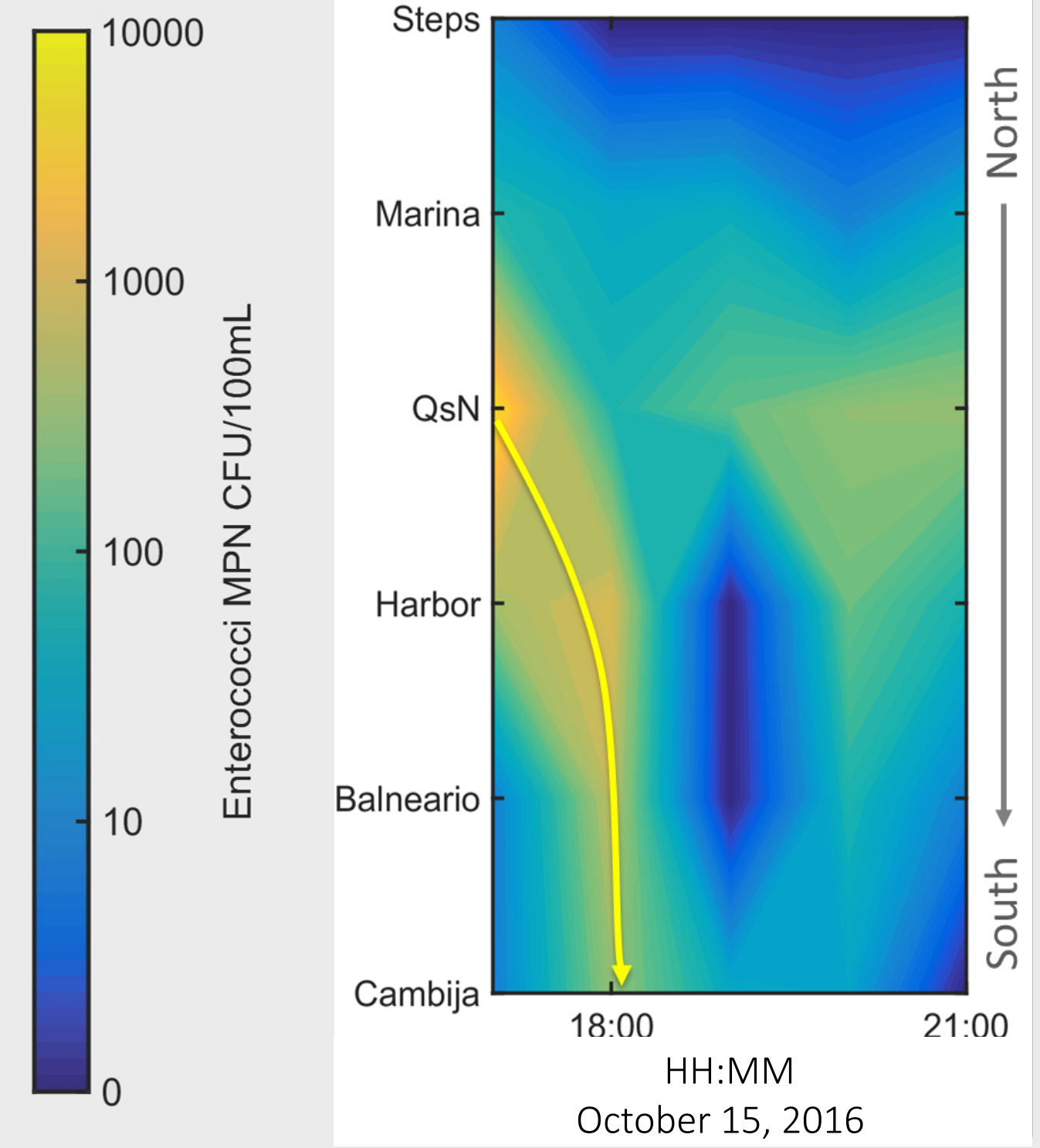
RINCÓN STUDY AREA



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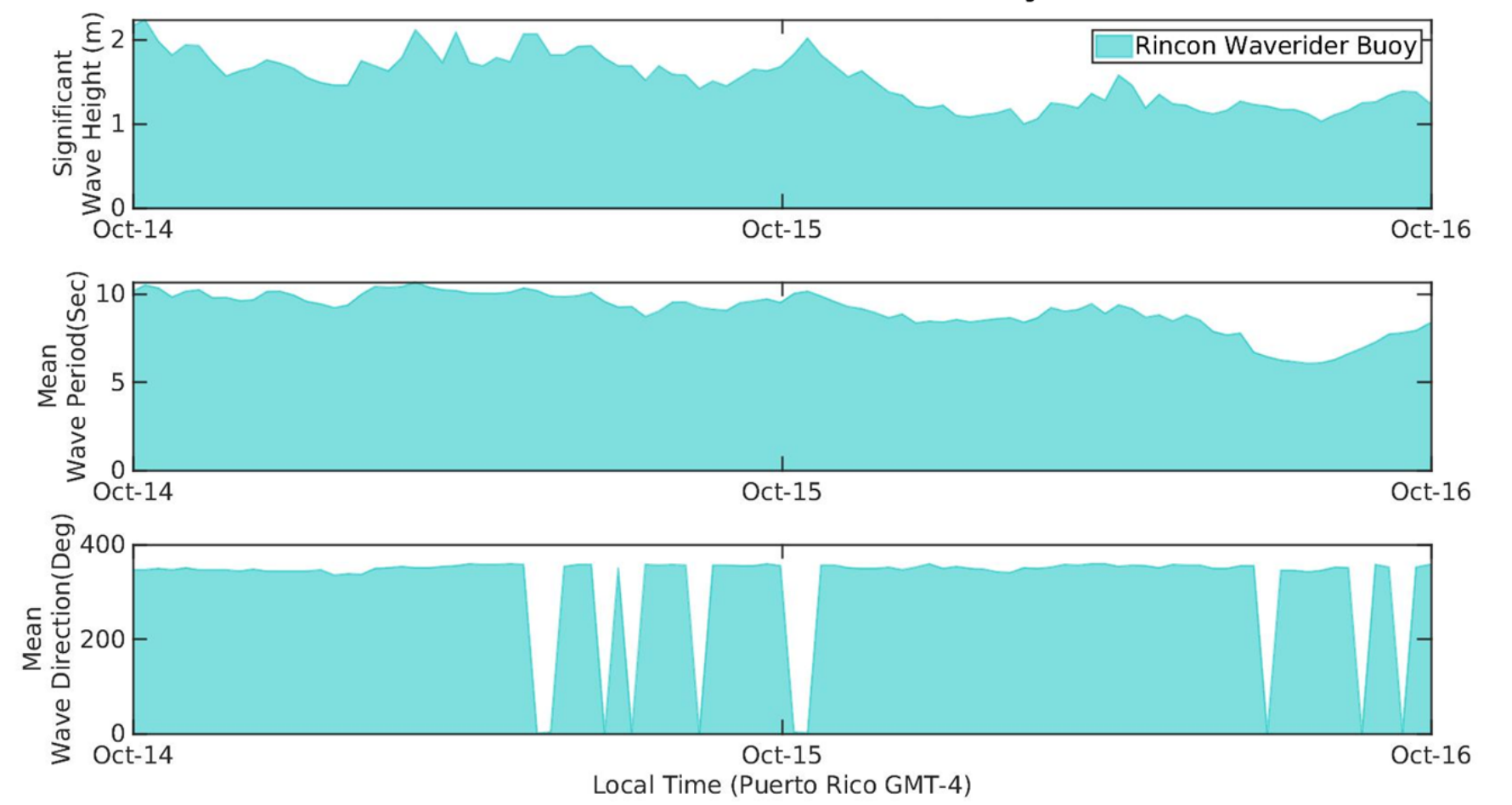


Distribution of Enterococci Concentration



↑ A 48-hour sampling campaign was conducted at Rincón Public Beach (RPB). Results suggest that Enterococci concentration was spreading south 'Quebrada sin Nombre' (QsN). This data will be used for water quality validation.

Rincón Waverider Buoy



↑ Wind and wave information is taken from CARICOOS Rincón Waverider Buoy, while tides are obtained from OSU's Tidal Model Driver.

← Data from two Aquadopp Profilers will be used to validate currents, waves and sea surface height.

DORADO STUDY AREA

Delft3D numerical modelling tool is being implemented in Dorado Public Beach, Puerto Rico. Using geographic information such as Digital Elevation Models and ocean driving forces such as tides, winds and waves, it is possible to generate a circulation model for hindcast and forecast applications.

After the hydrodynamic model is obtained it will be used to predict the Enterococci concentration at the site for specific meteorological and oceanographic conditions.

