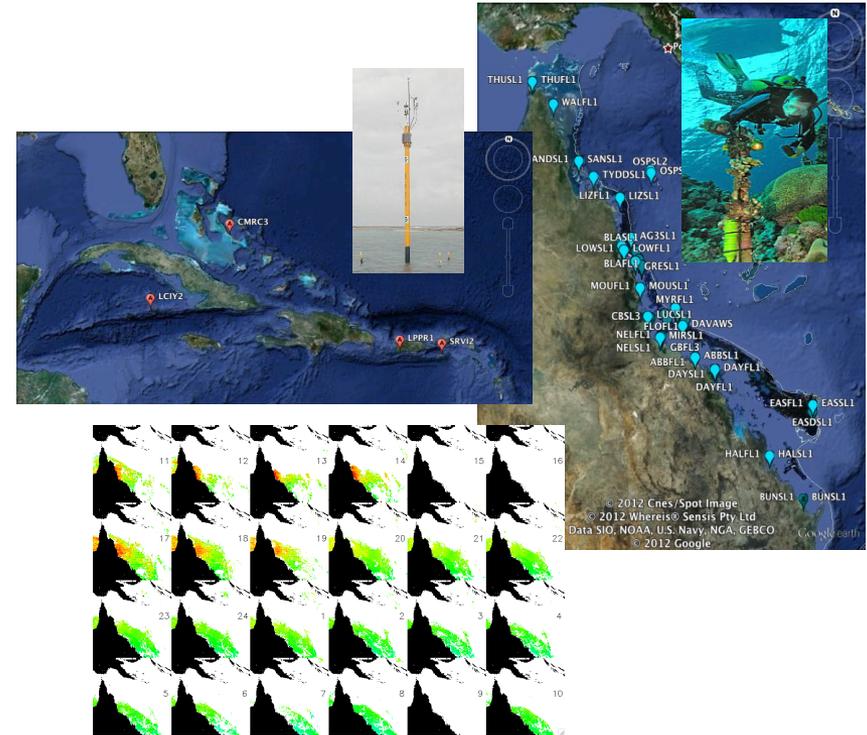


# Coastal Diurnal Warming Study through In-situ and Satellite data

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- Diurnal warming is important for the validation of SST against in-situ measurements at buoy depths and satellite data blending. For coastal regions, the phenomenon is also linked to coral bleaching and better management of coral reef health
- Two in-situ coastal shallow temperature datasets located at Caribbean and Great Barrier Reef were analyzed for diurnal warming characters and relationships with the coastal environments.
- The warming character include the warming amplitudes, timing, vertical profiles, seasonality.
- The environmental parameters being explored include the influence of tide, local geographic features as well as well-studied ones including wind and solar radiation.



In addition, hourly SST data from geostationary satellite MTSAT1R data have been analyzed for diurnal warming signal at the Great Barrier Reef region. Preliminary results have shown 5 out of 32 days have clear afternoon warming