



# Landsat-Derived Sea Surface Temperature Maps of Narragansett Bay for Environmental Analysis

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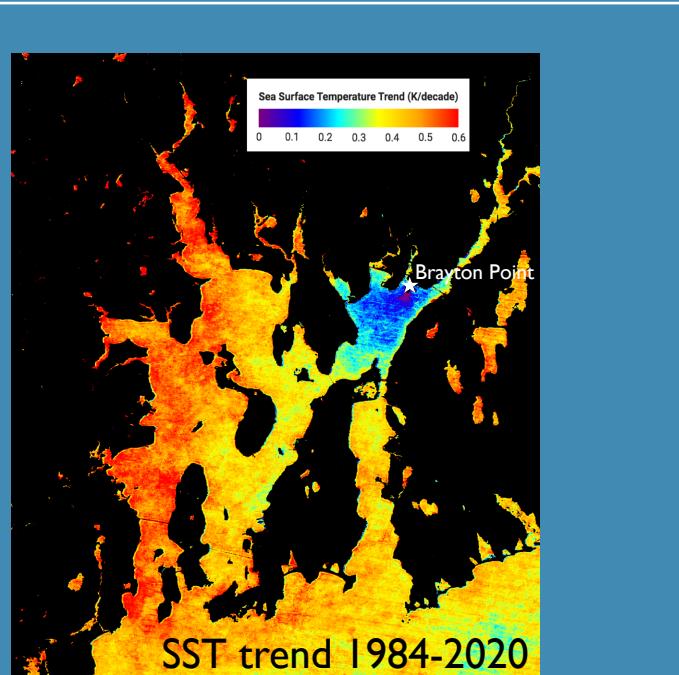
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## Questions

What can satellite data tell us about:

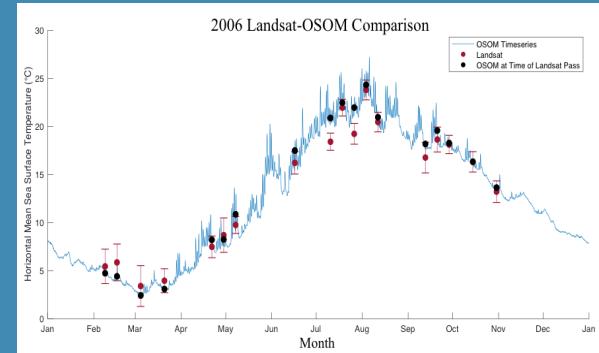
1. Climate change in Narragansett Bay
2. The removal of the Brayton Point Power Station
3. The skill of Narragansett Bay models

## Results



- Convert satellite thermal radiance to sea surface temperature
  - Use buoy data to adjust satellite data as an atmospheric correction
  - Perform pixel-wise regression to describe interannual trends
- Sea surface temperature is increasing in Narragansett Bay by  $0.46^{\circ}\text{C}/\text{decade}$
  - Removal of the Brayton Point Power Station effectively reduced the temperature anomaly of Mt. Hope Bay with respect to overall warming

## Model (OSOM) Hindcast Comparison to Landsat



- Model has greater seasonal extremes

## Vis-a-thon Project

### Creating Sound from Narragansett Bay Buoy Data

