

# Climate Impacts on Estuarine Ecology: An Environmental and Social Approach

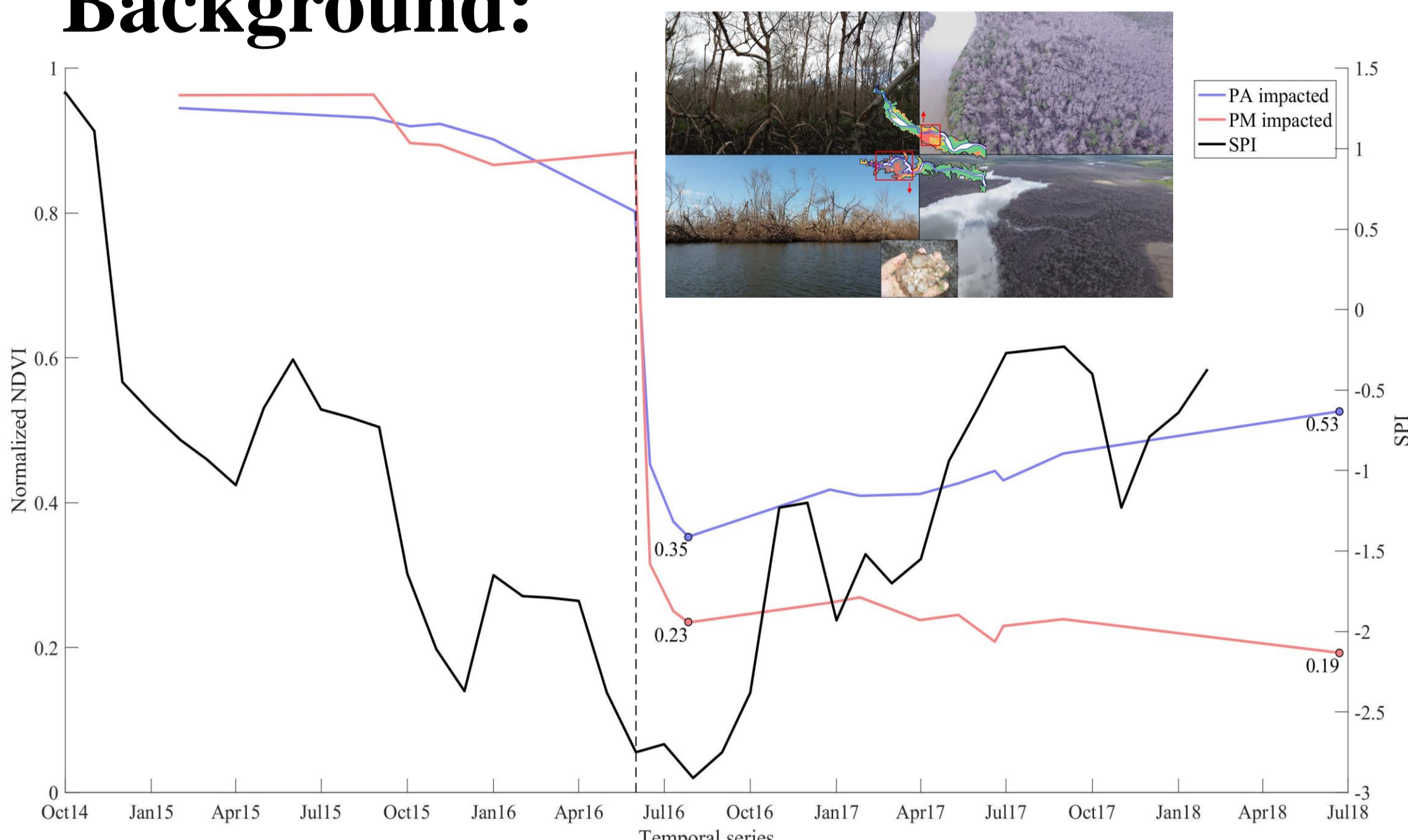
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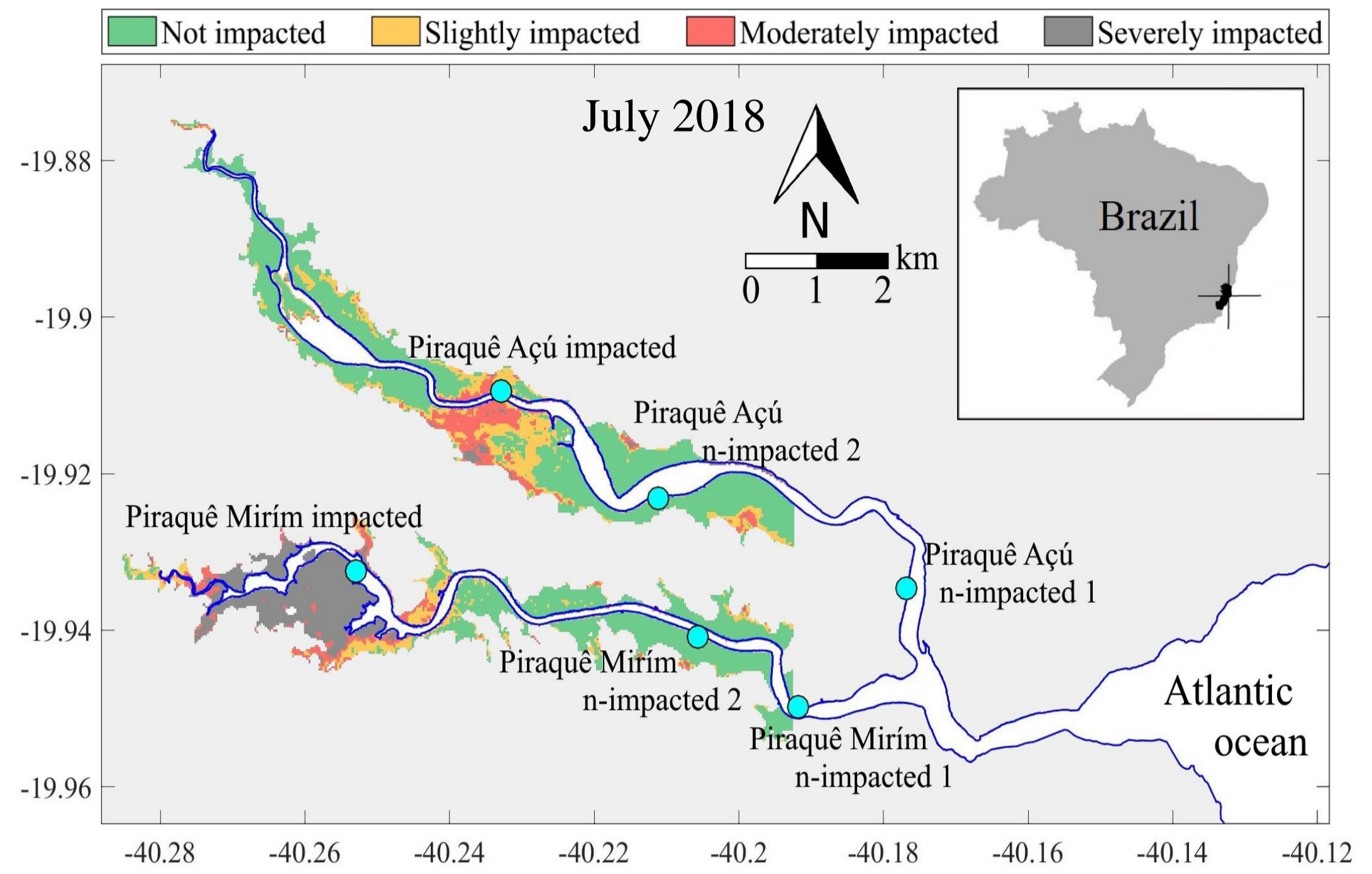
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## Background:



Normalized NDVI values of the study area (impacted sites at the Piraquê Açu (PA) and Piraquê Mirim (PM) estuaries) before and after the hailstorm (June 2016, dashed black line). SPI = Standard Precipitation Index of the study area.



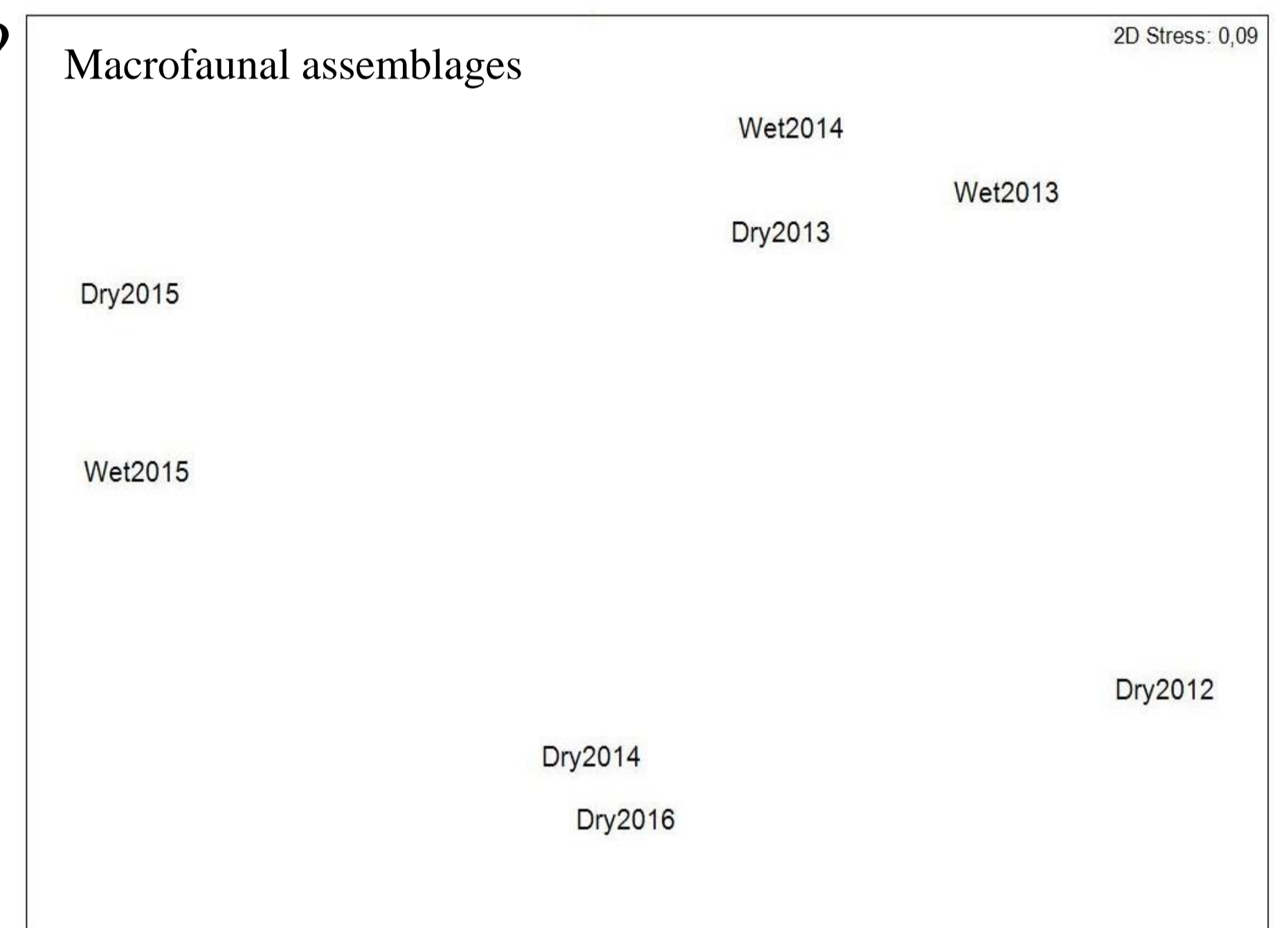
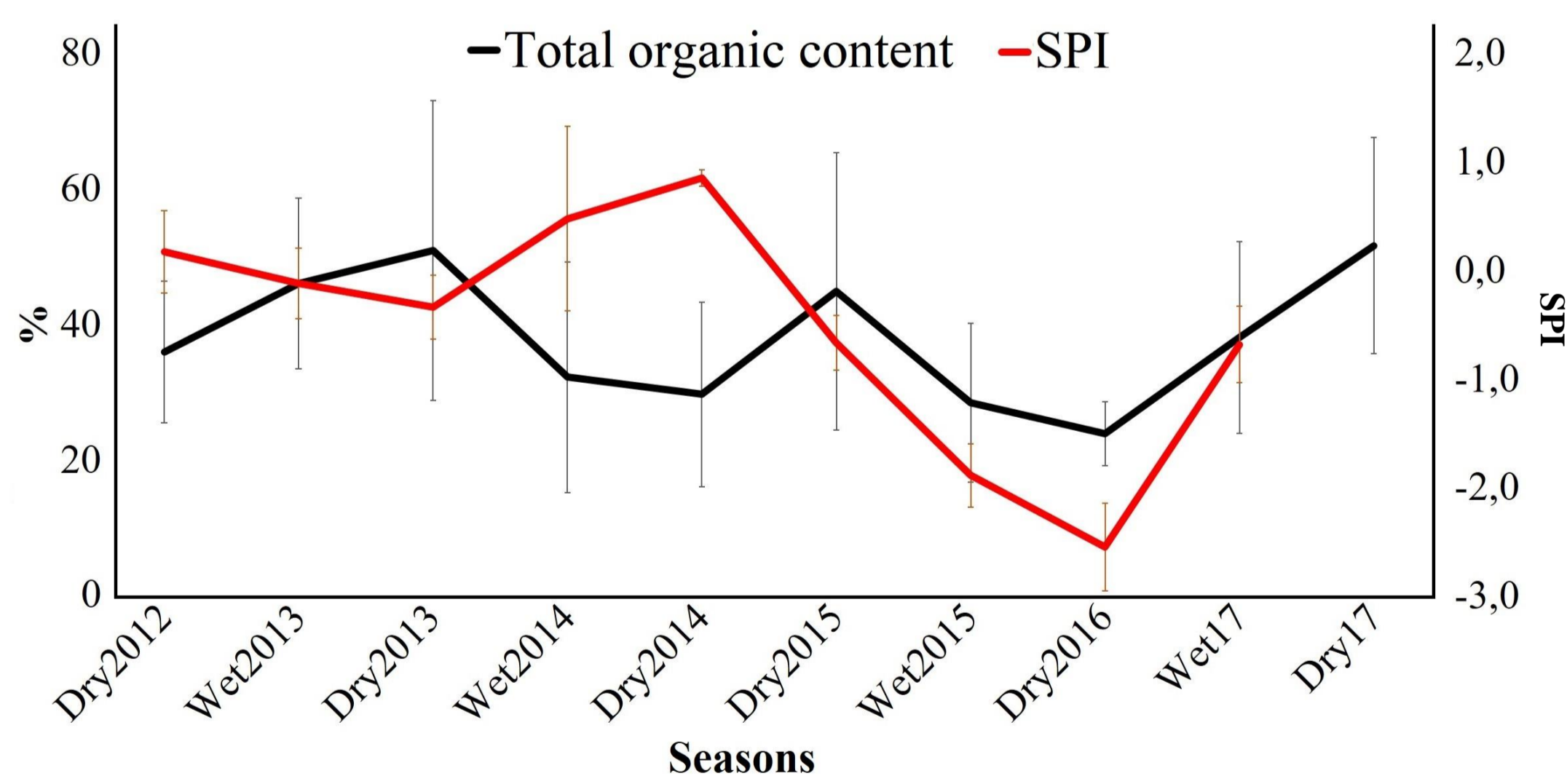
Sampling regions (impacted and not-impacted regions) at the Piraquê Açu-Mirim estuary.

## Questions and Preliminary results:

What are the sources and its changes in the human population view?

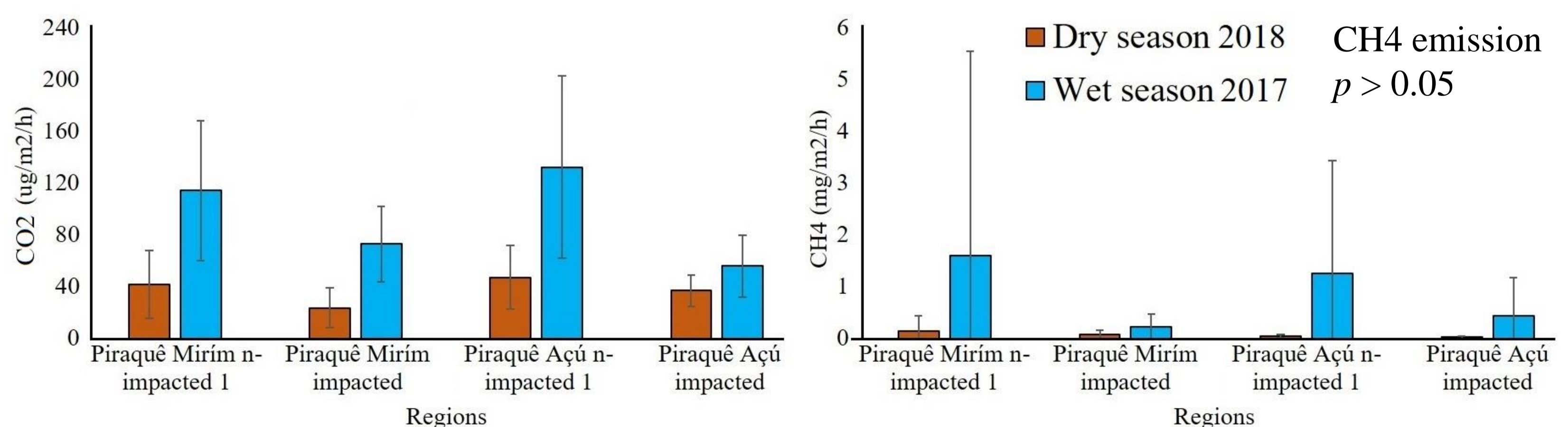
How the loss of mangrove forest impacts the isotopic signature and benthic ecosystem services?

How long-term rainfall changes affect a tropical estuary?



What are the impacts from mangrove forest loss on carbon stock and GHG emission?

CO<sub>2</sub> emission in the wet season of both not impacted regions were significantly higher than impacted regions in both seasons.



## Acknowledgments



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