Developing a water quality monitoring system for the world's largest chocked lagoon, study cases during southern Brazil's 2023/2024 catastrophic floods

IODC-3

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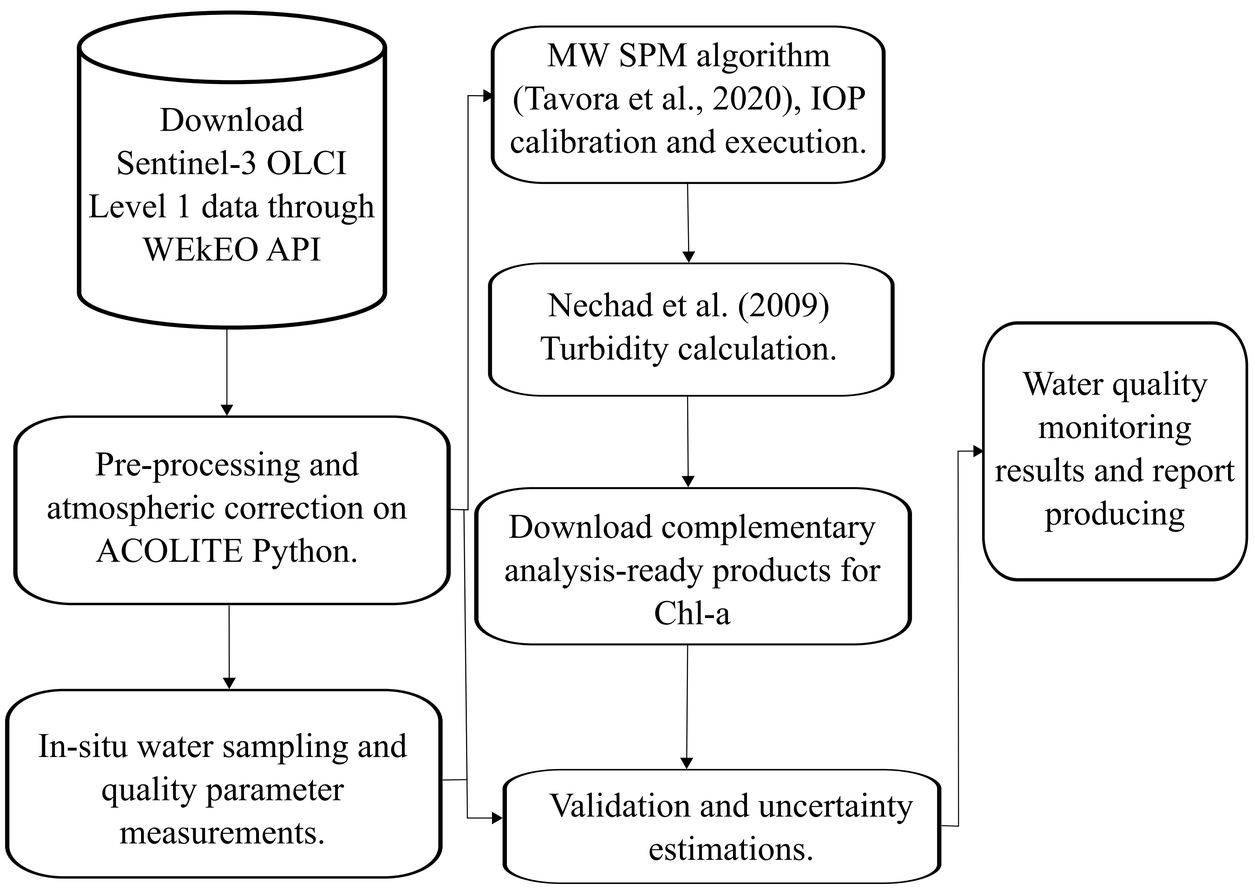
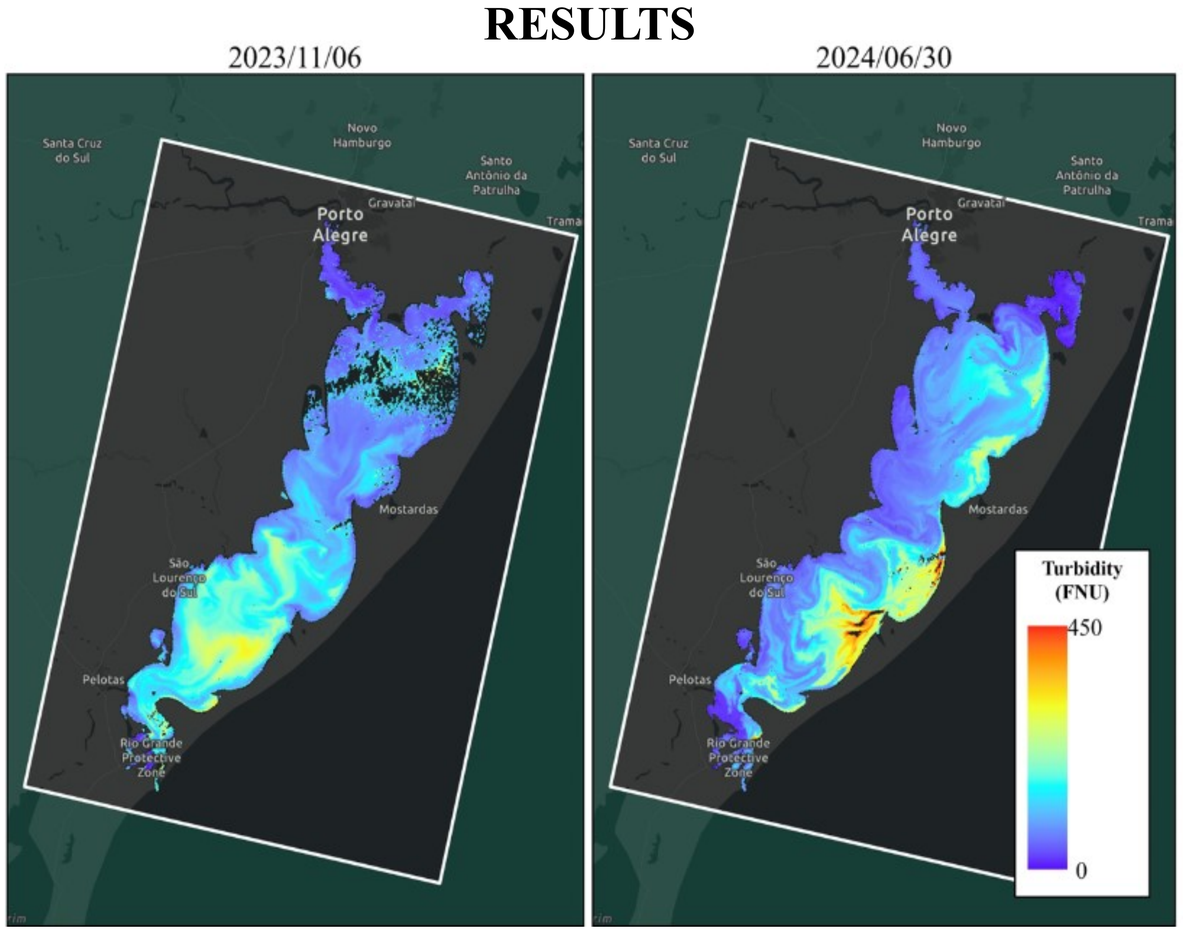
INTRODUCTION

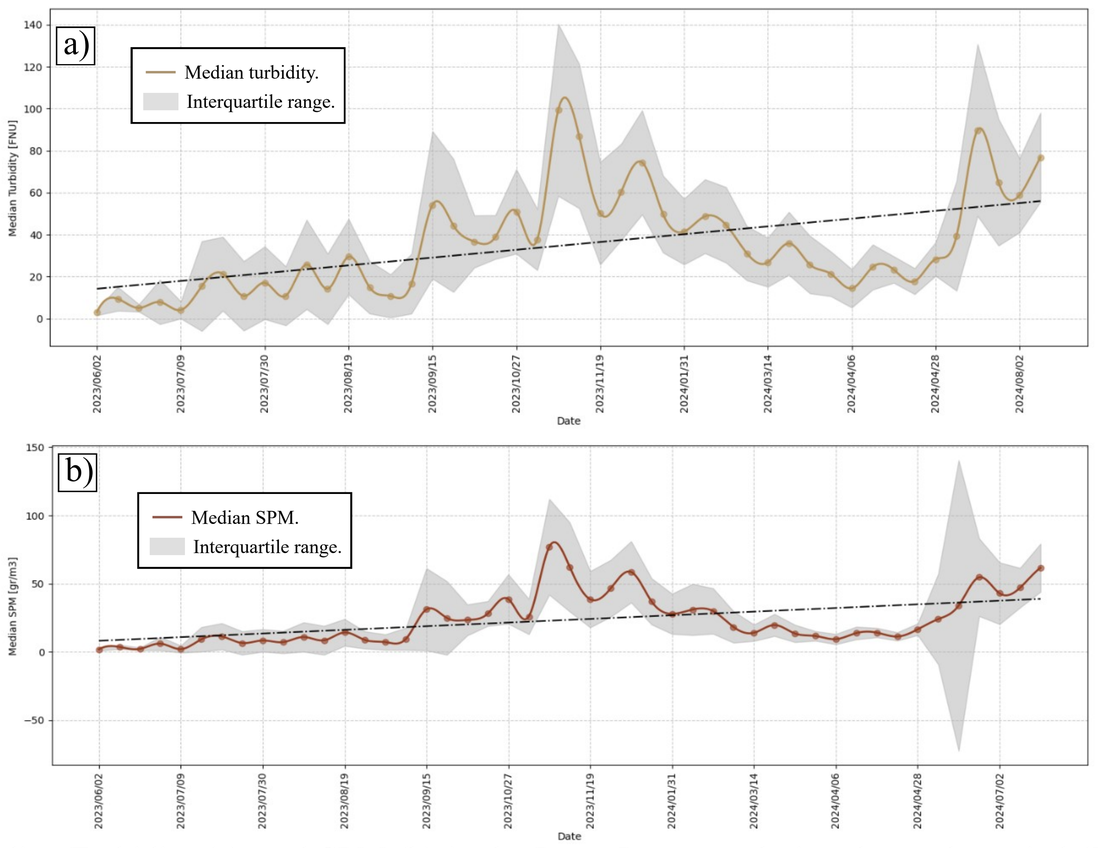
METHODS



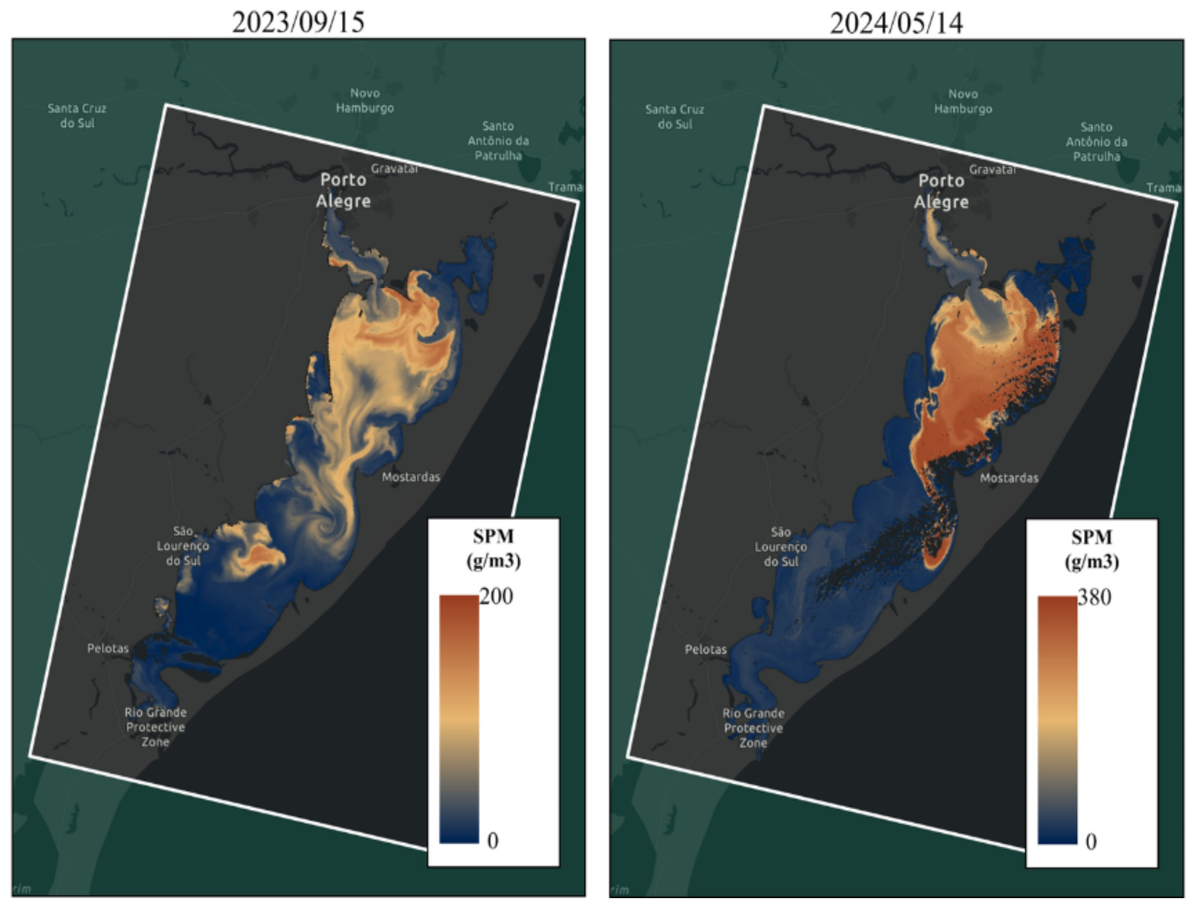
RESULTS



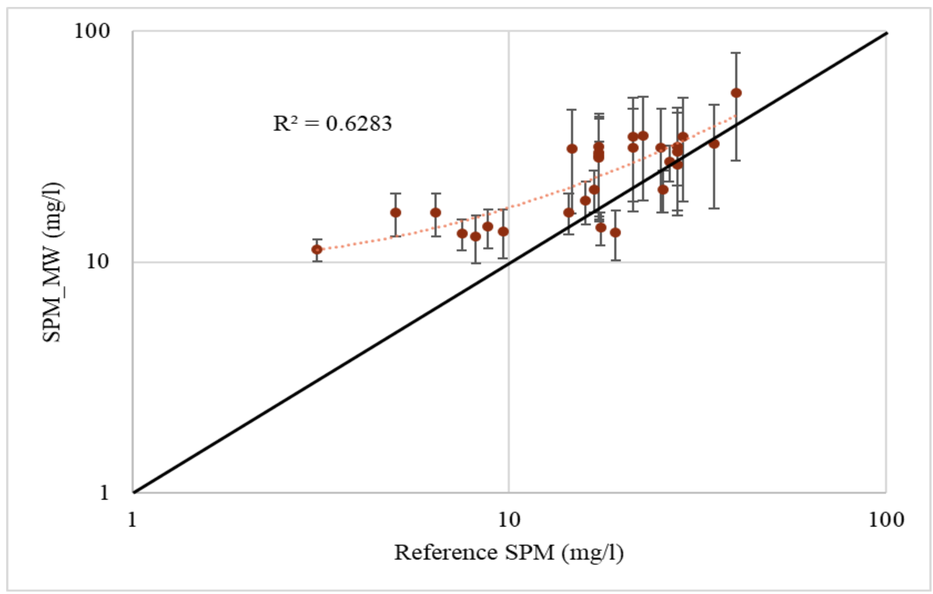
Highest turbidity levels reached during the 2023 and 2024 extreme rainfall events.



Median Turbidity (a), and SPM (b) in the Patos Lagoon, during the study period (June/2023 - August/2024).



Highest SPM levels reached during the 2023 and 2024 extreme rainfall events.



SPM MW concentration validation using reference in-situ measurements.

CONCLUSIONS

* Turbidity in Patos Lagoon and Guaíba River reached its highest median levels during the 2023 extreme rainfall event.
* The extreme rainfall events represented unprecedented input of suspended particulate matter into the Patos Lagoon, specially during 2024.
* It is imperative the implementation of the proposed permanent monitoring system for water quality monitoring for the Guaíba River and the Patos Lagoon.

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