Part 2

The Rise of Guiana Dolphins in Sepetiba Bay

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Report 2 of 3

Report 2

Part II - The Present - The Perilous Present ofGuiana Dolphins in Sepetiba Bay

Introduction

The past two decades witnessed a profound metamorphosis in Sepetiba Bayas it evolved into the largest steel-making complex in Latin America and apivotal shipping hub. The bay now houses numerous potentially-polluting installations, including oil and gas terminals, steel mills, power stations, ports, and shipyards.

The impact of a fast changing environment

The heightened boat traffic has given rise to significant acousticpollution, disrupting the dolphins'communication and echo-locationbehaviors. The bay's water, oncepristine, now bears the burden of heavy metals and domesticeffluents, posing a severe threat tothe marine ecosystem. Iron dusttransported by some shipping cargos, especially on windy days when it is blown directly into thewater, further contributes to water contamination.

Decades of overfishing, both locally and regionally, have led to a substantial decline in fish stocks in the Americas—ranging from 20% to a staggering 70%. This scarcity of prey has plunged Guiana Dolphins into a struggle for survival. 20 years ago spending only 10% of their time searching for food, they now devote over 60% of their time tothe quest for preys.

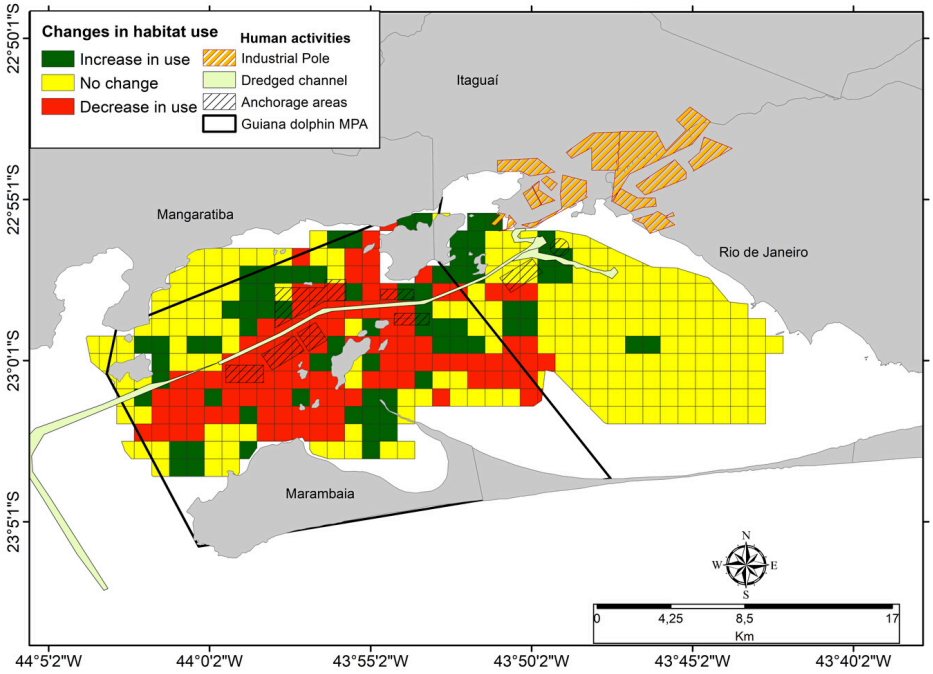
The consequences are stark—Guiana Dolphins are thinner,weaker, and more susceptible toe n tanglement in fishing nets.Photo-identification efforts by researchers reveal alarmingstatistics: 64% of studied dolphinsin Sepetiba Bay exhibit poor body conditions, with 28% classified asemaciated. Traditional fishermen,witnessing the plight of both dolphins and their own livelihoods, have become unlikely allies in conservation efforts.

Since 2015, a Marine Protected Area has been established inSepetiba Bay to regulate industrial activities, offering a glimmer of hope. Fishermen, recognising the symbiotic relationship between the survival of their activity and that of Guiana Dolphins, actively participate in conservation efforts.This collaboration marks a unique turning point as the local community becomes a crucialforce against environment aldegradation.

The Data Explained

Map 1: Changes in habitat use of the dolphins overthose last 20 years

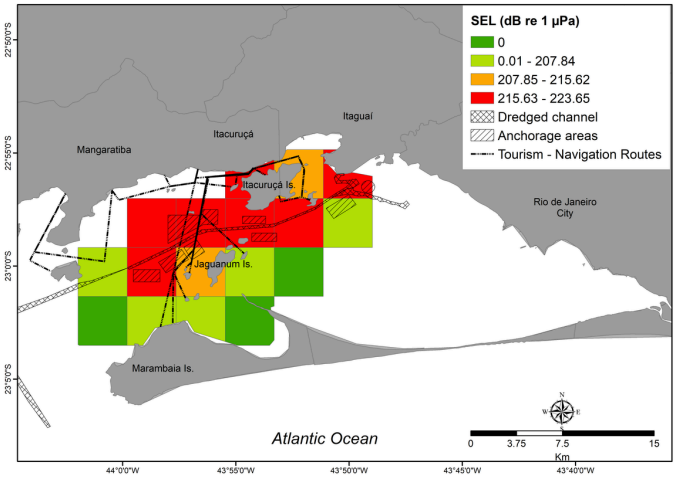
In the red area, where the dolphins are going less than in the past, we cansee the dredged channel used by shipping cargos within the MarineProtected Area. This activities are creating a disturbance for the animals,they no longer use the area on the same scale as they used to.

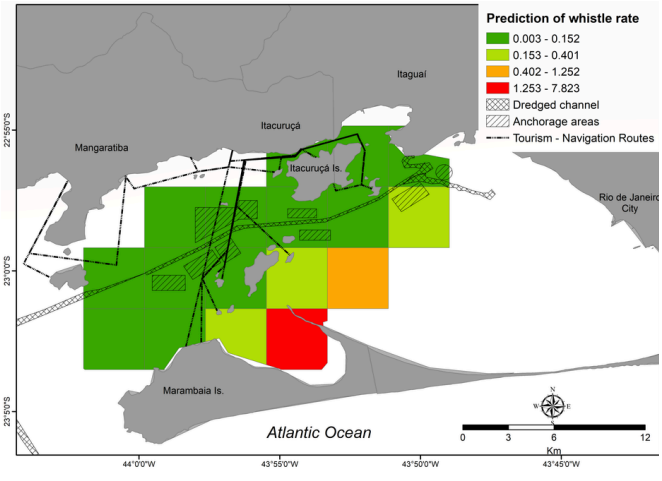


Map 2 & 3: Impact of the dredging channel and its acoustic pollution on the whistle rates of the dolphins

The first map presents the acoustic pollution level in decibels within thearea, we can see intense disturbances around the channel.

The second maps shows that the dolphins reduce their communicationefforts near the channel, they emit less whistles there than they do farfrom this busy area.





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