10% of the global carbon stocks

It is spread over 9 countries in South America, of which Brazil has the largest share.

Occupies 4.2 million km$^2$ of Brazil’s territory, equivalent to 49% of the country’s area.

2.1 million km$^2$ legally protected
433 thousand indigenous people live in the Brazilian Amazon.

311 species of mammals and more than 1 thousand bird species.

40% of Amazon fish species have not been yet described.

40,000 species of plants.
20% of the world’s fresh waters availability

35% of world’s tropical forests
Deforestation of the Brazilian Amazon has hit the highest annual level in a decade.

Agriculture and cattle expansion leading to wildfires, which have effects on Hg mobilisation.

Political scenario increasing threats and illegality.

TREASURE AT RISK
AND HUGE THREATS COMING IN

- **Deforestation**, land conflicts, degradation of aquatic and terrestrial ecosystems, impacts on traditional communities: food security and public health
Original Contribution

Mercury in Populations of River Dolphins of the Amazon and Orinoco Basins

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Abstract: In the Amazon and Orinoco basins, mercury has been released from artisanal and industrial gold mining, which can result in elevated mercury concentrations in river dolphins. This study aimed to assess mercury levels in river dolphins from the Amazon and Orinoco basins and to evaluate the potential impact on their health.

The results showed that mercury concentrations in river dolphins were significantly higher in the Amazon basin compared to the Orinoco basin. The study highlights the need for increased monitoring and management of mercury pollution in these areas to protect the health of river dolphins and the ecosystem as a whole.
Highest level ever recorded in a wild felid.

MAY JUNIOR, Joares A. et al. Mercury content in the fur of jaguars (Panthera onca) from two areas under different levels of gold mining impact in the Brazilian Pantanal.
PROTECTED AREAS
Original Research Paper

Mercury Contamination within Protected Areas in the Brazilian Northern Amazon-Amapá State

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Abstract: Mercury contamination is a long-standing environmental and social problem, notably in the Amazon. The widespread use of mercury in artisanal and small-scale gold mining has driven contamination of the environment and the people, threatening biodiversity, human health and livelihoods of traditional populations. Along the border area between Brazil and French Guiana, illegal gold mining is considered a critical threat to biodiversity, a social and economic problem and a political and diplomatic issue. On the Brazilian side in Amapá state, stands the world’s largest tropical forest National Park-Tumucumaque National Park (TNP). Despite its critical importance for the maintenance of ecosystem services, little is known about anthropic impacts in the area, including mercury contamination. The present study aims to assess the current levels of mercury contamination of carnivorous fish species in the TNP region as the starting point for the assessment of its impact over the integrity of protected areas and local communities. Fish samples were collected at 33 sampling sites within TNP and its surroundings. Samples of 187 most consumed local fish belonging to 12 species were analyzed for mercury content. Among the contaminants, the mercury was found to be the most prevalent species.
Human Mercury Exposure in Yanomami Indigenous Villages from the Brazilian Amazon

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Abstract: In the Brazilian Amazon, where the majority of Yanomami villages are settled, mercury (Hg) exposure due to artisanal small-scale gold mining (ASGM) has been reported since the 1980s. This study assessed mercury exposure in the Yanomami reserve and whether the level of contamination was related to the ASGM geographical location. It was conducted using a cross-sectional study of 19 villages. Direct interviews were performed and hair samples were used as a bioindicator of Hg exposure. The Parallelogram Ratio (PR) was estimated as an indicator of liver damage.
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IMPROVING ACTIONS AT REGIONAL SCALE