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# Pantanal's 2020 fire season in perspective: the case of a natural heritage reserve



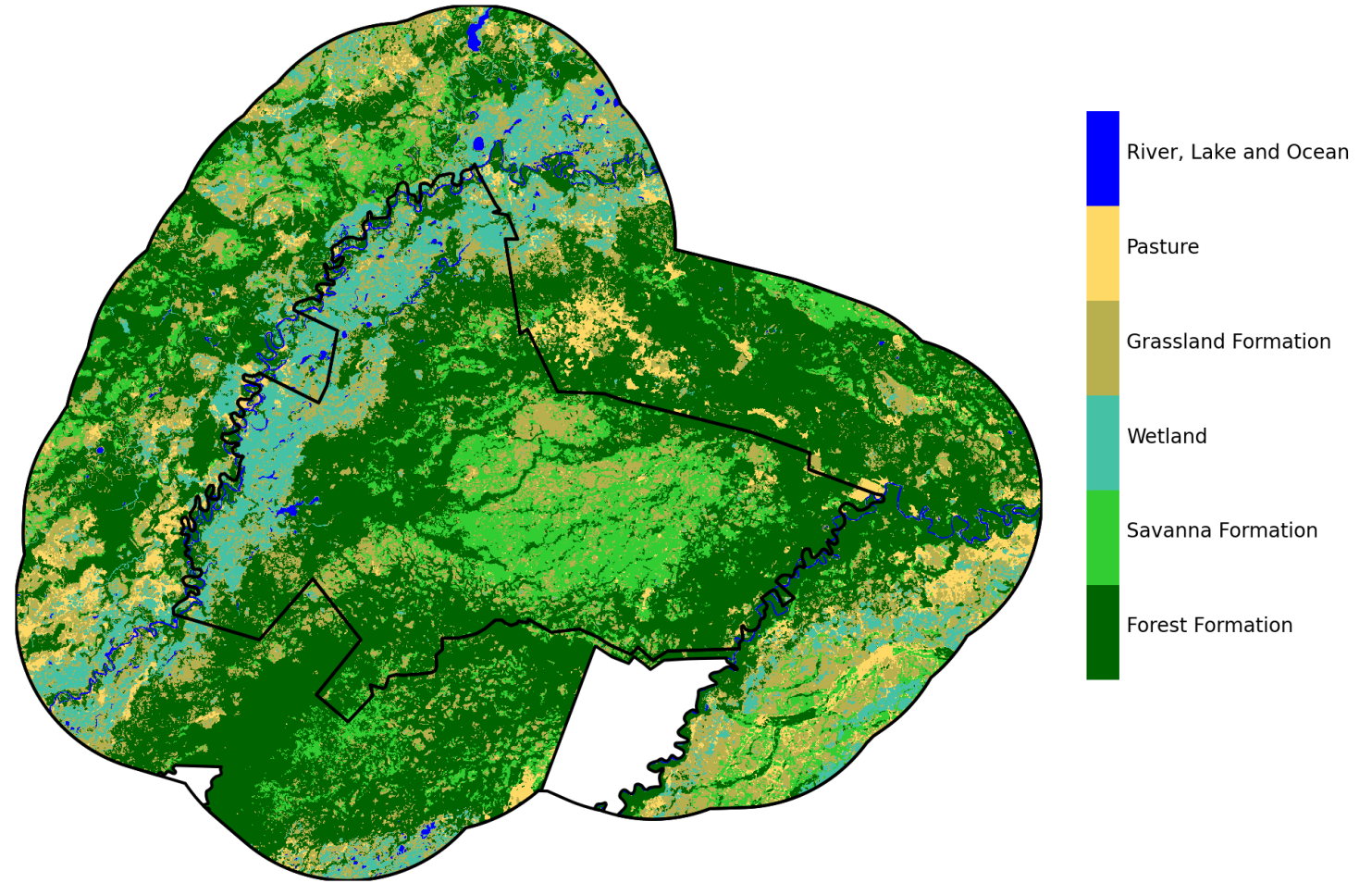
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# The RPPN SESC Pantanal

- It's the largest RPPN in Brazil
- Covers around 108,000 ha in the Brazilian Pantanal
- Mosaic of landscapes
- Sanctuary for protected species such as the hyacinth macaw
- Fire management strategies in place



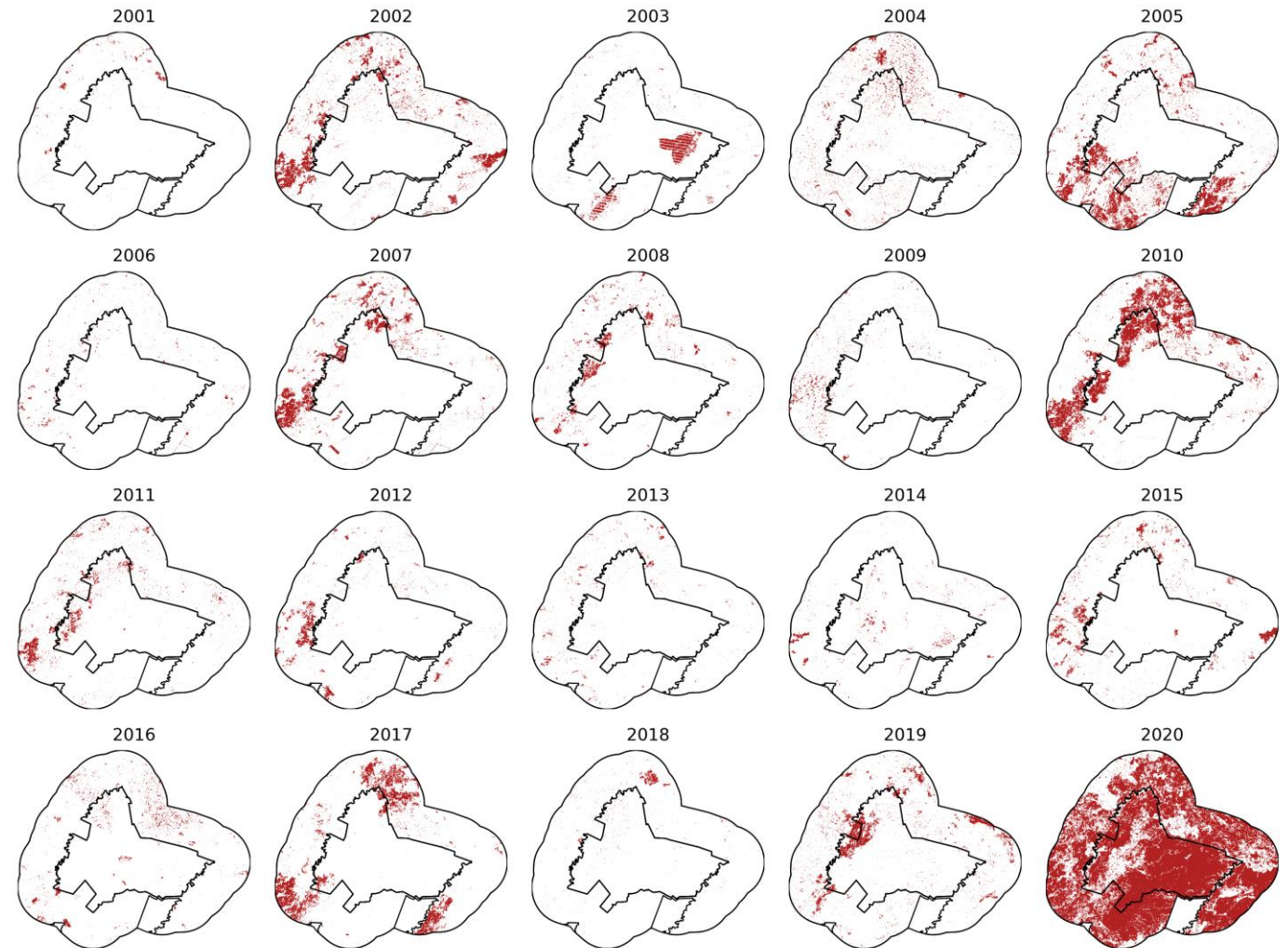
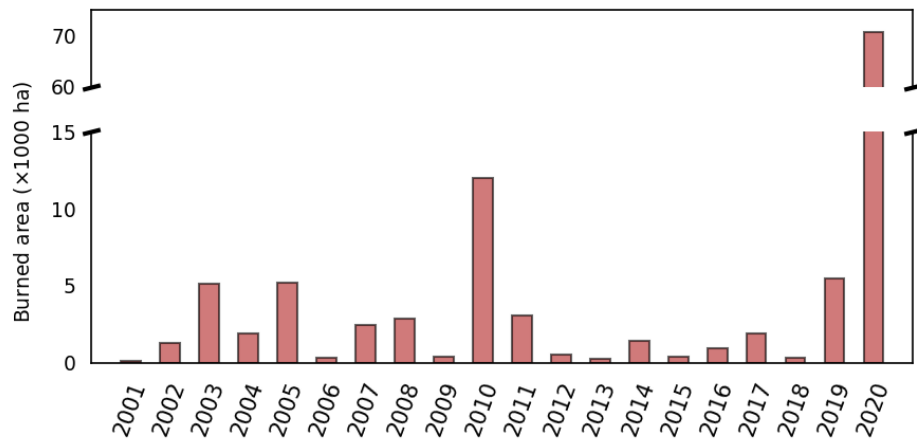
# The 2020 fire season

Photos by Jeferson Prado



# An unprecedented year

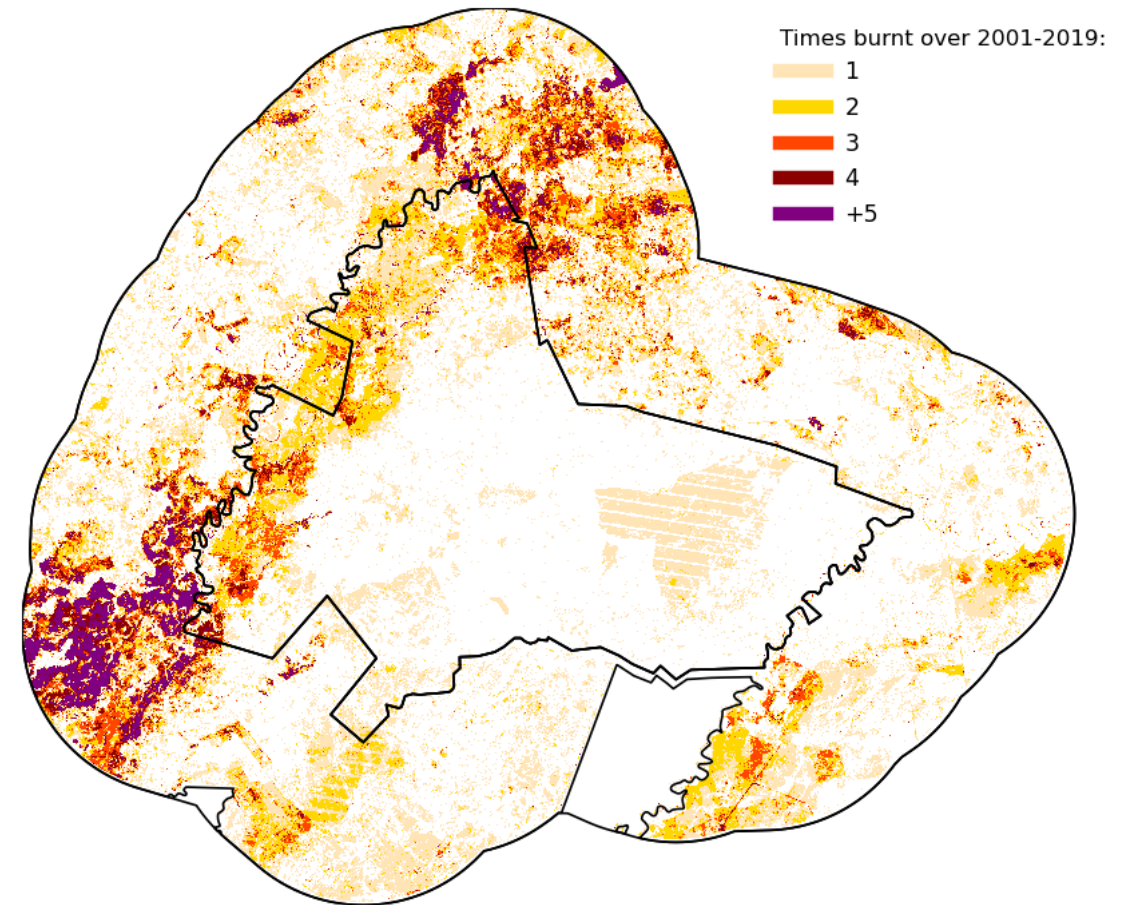
- Remote sensing data (by means of the AQMLS C2 product at 30m spatial resolution) indeed confirmed 2020 as unprecedented in the region



Burned area using the AQMLS C2 product developed by LASA

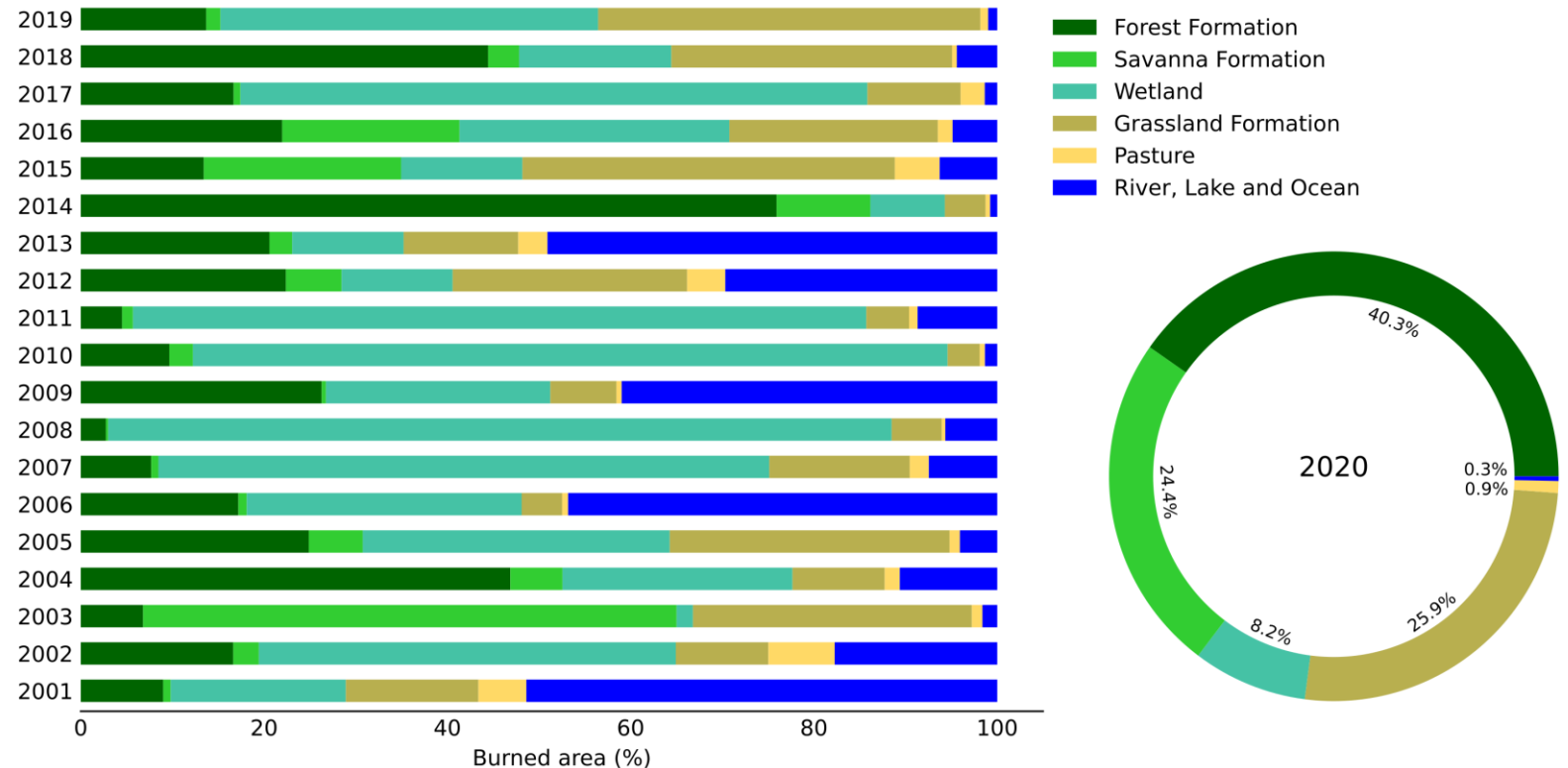
# Changed burning patterns in 2020

- This reserve does not burn regularly
- Over the 2001-2019 period:
  - The vast majority of burned areas occurred only once (60%)
  - 35% burned twice or thrice
  - And only 5% burned more than 3 times



# Changed burning patterns in 2020

- During the 2001-2019 period the majority of burned areas were on wetlands and grasslands
- 2020 changed these patterns, with 40% of burned areas occurring in forested areas, followed by grasslands and savannas



# Future perspectives

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- These results are being used to improve fire management strategies and estimate carbon stocks in the reserve
- Future estimations require scenarios for future burned areas and thus future work includes adding climate information, by means of ERA5 and then regional climate models





# Thank you

Any questions/comments/suggestions please do reach out!

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