

# Do Marine Heatwaves Affect the Intensity of Tropical Cyclones?

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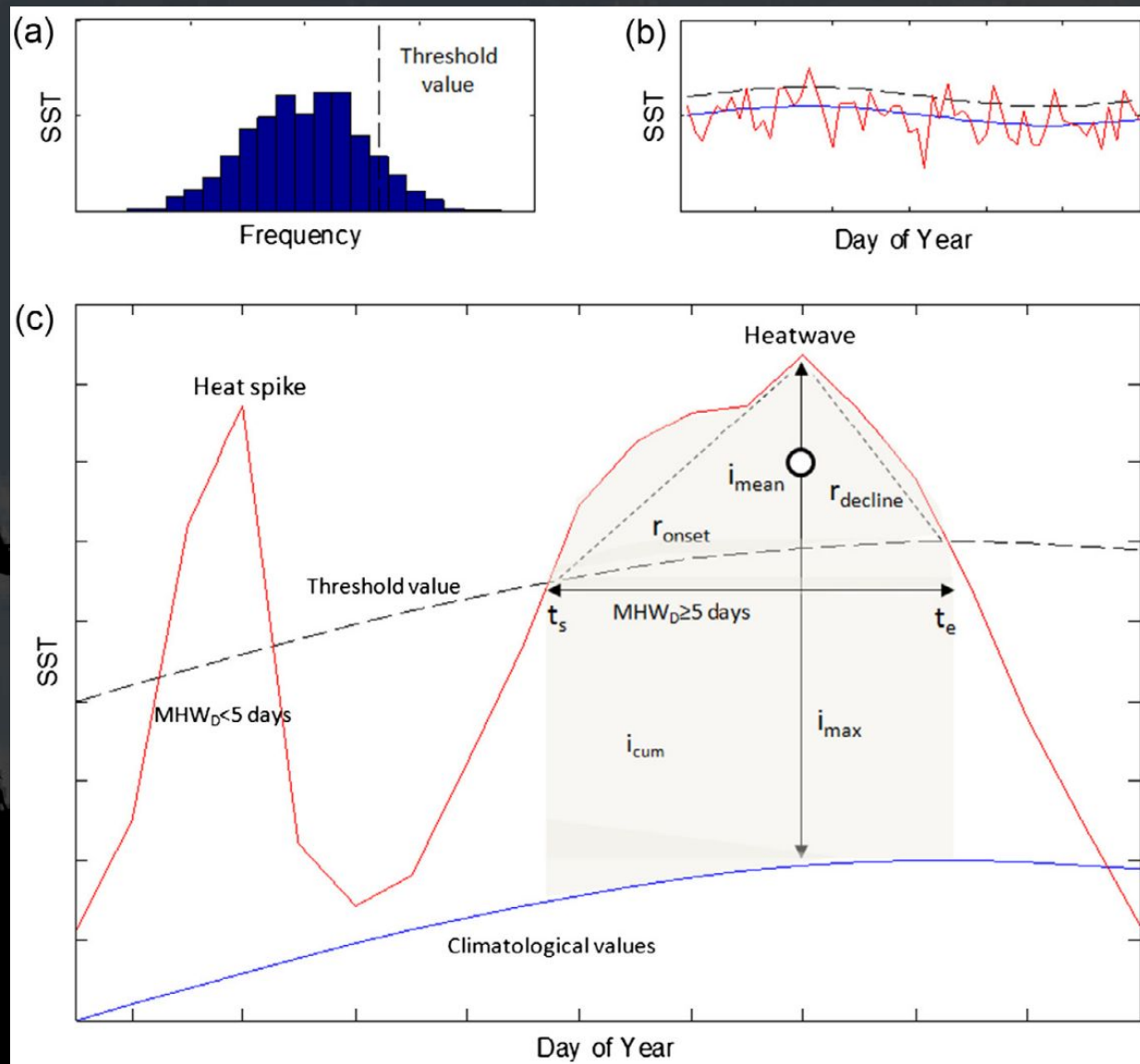
Greg Foltz



# Marine Heatwave

- Threshold
- Duration

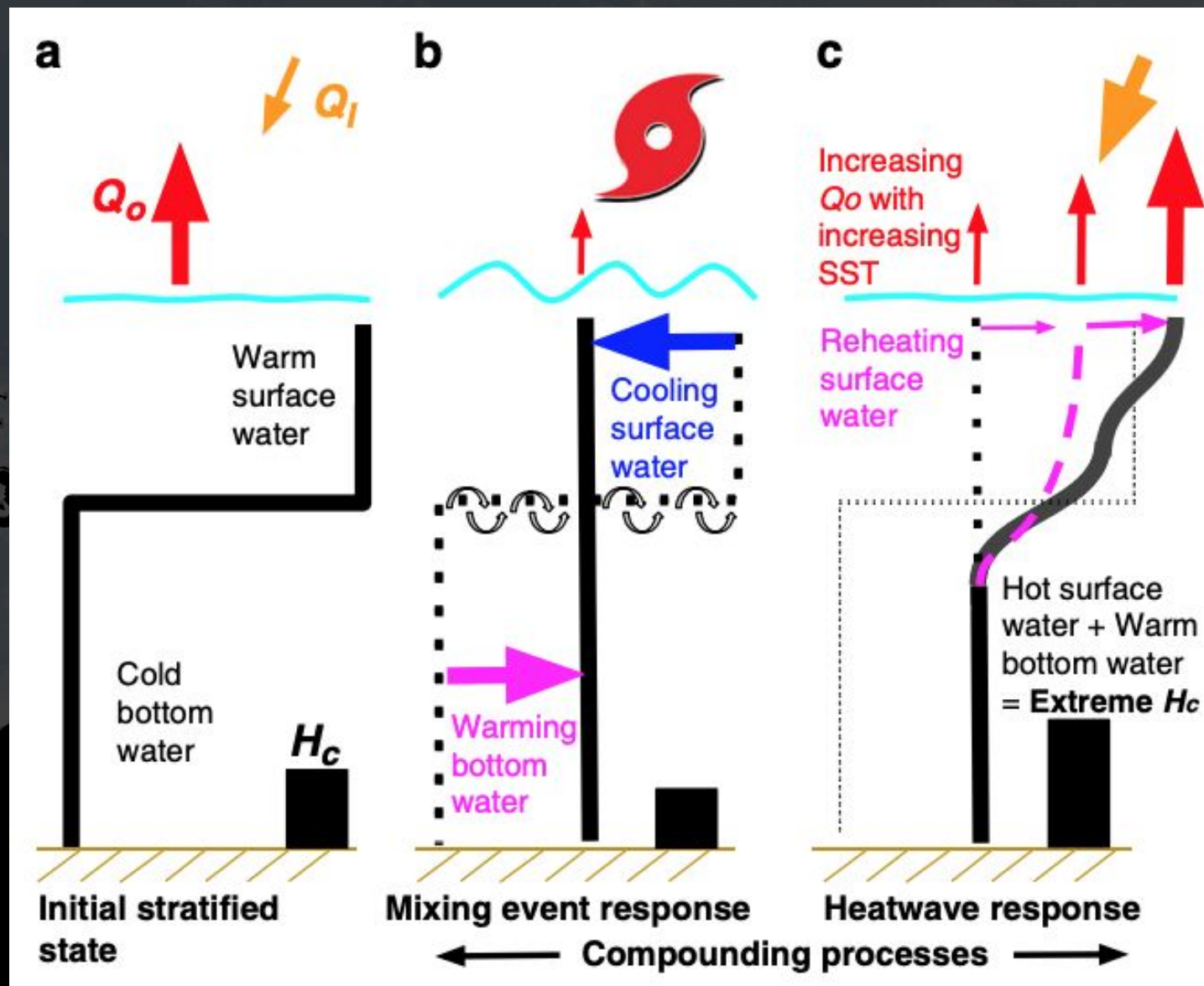
Hobday et al., 2016



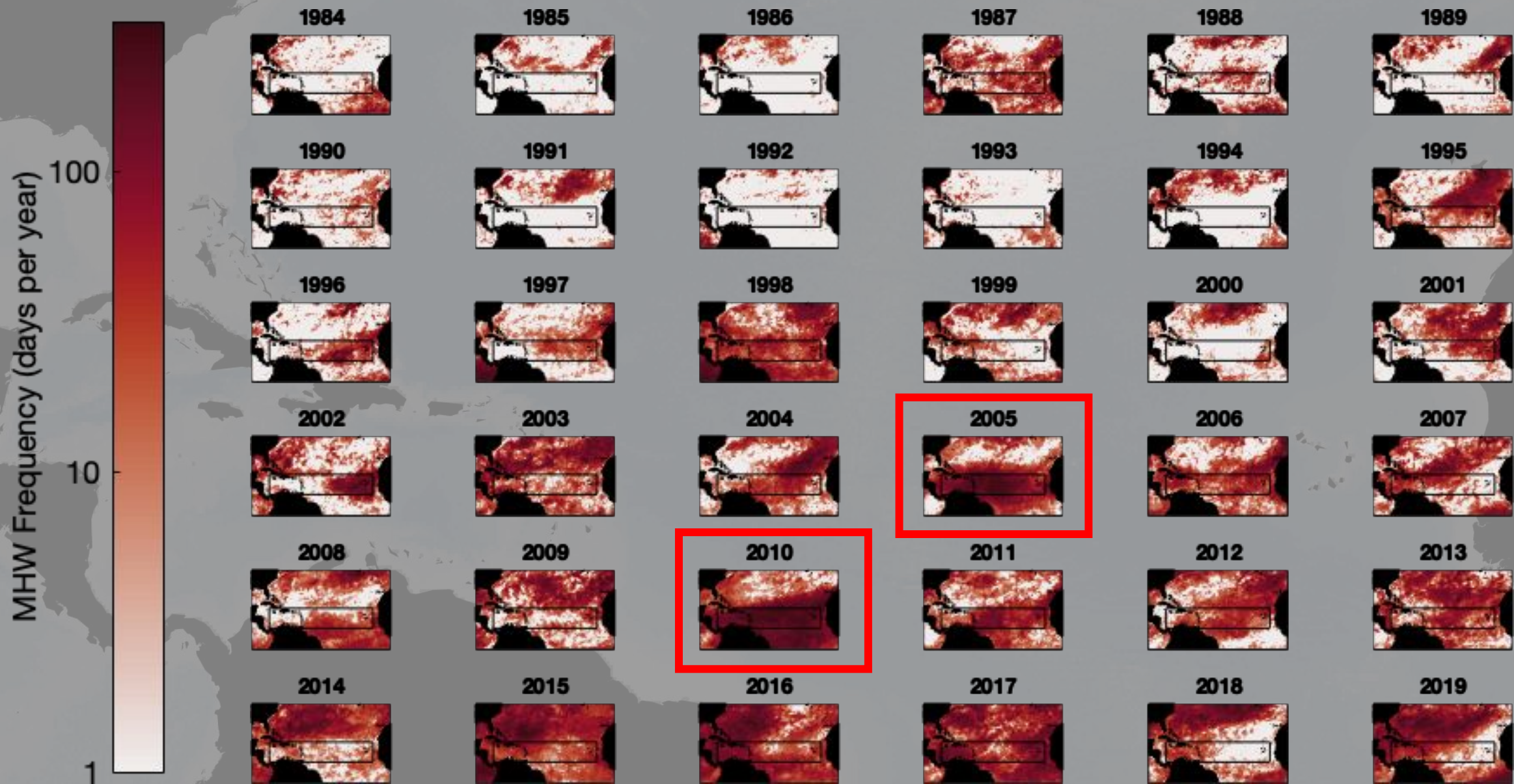
# Compound Event

Hurricane Michael (2018)

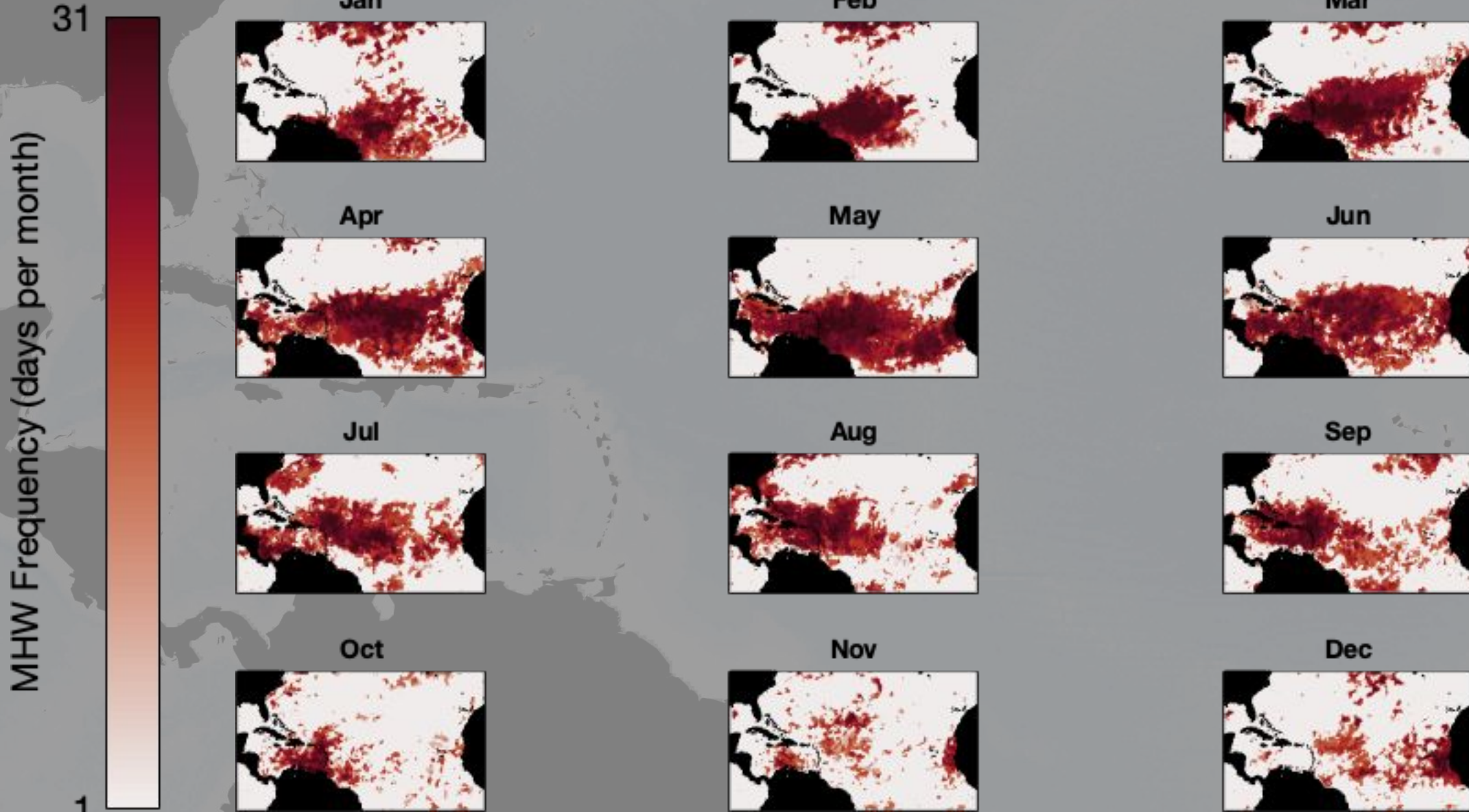
Dzwonkowski et al., 2020



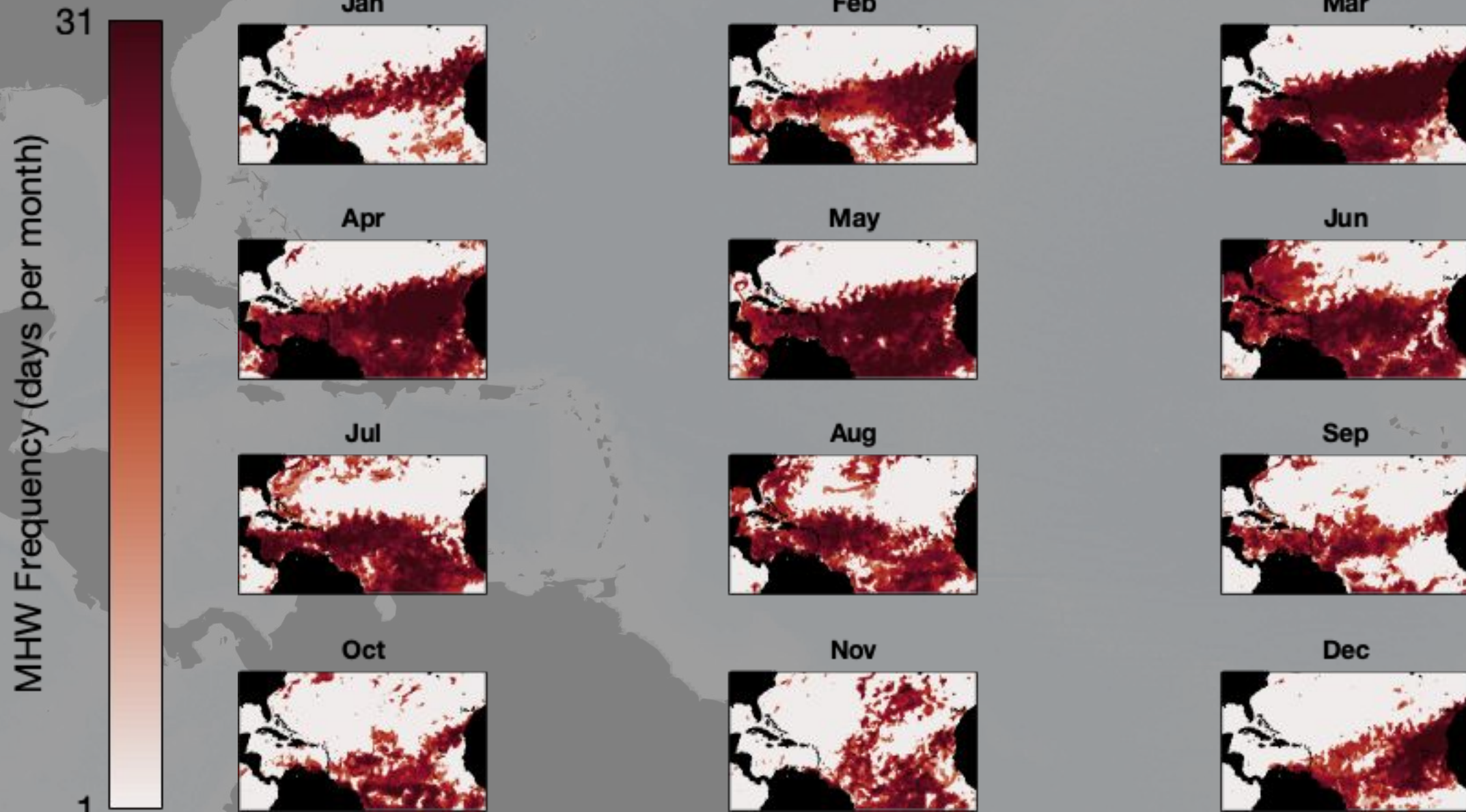
# Marine Heatwave Frequency

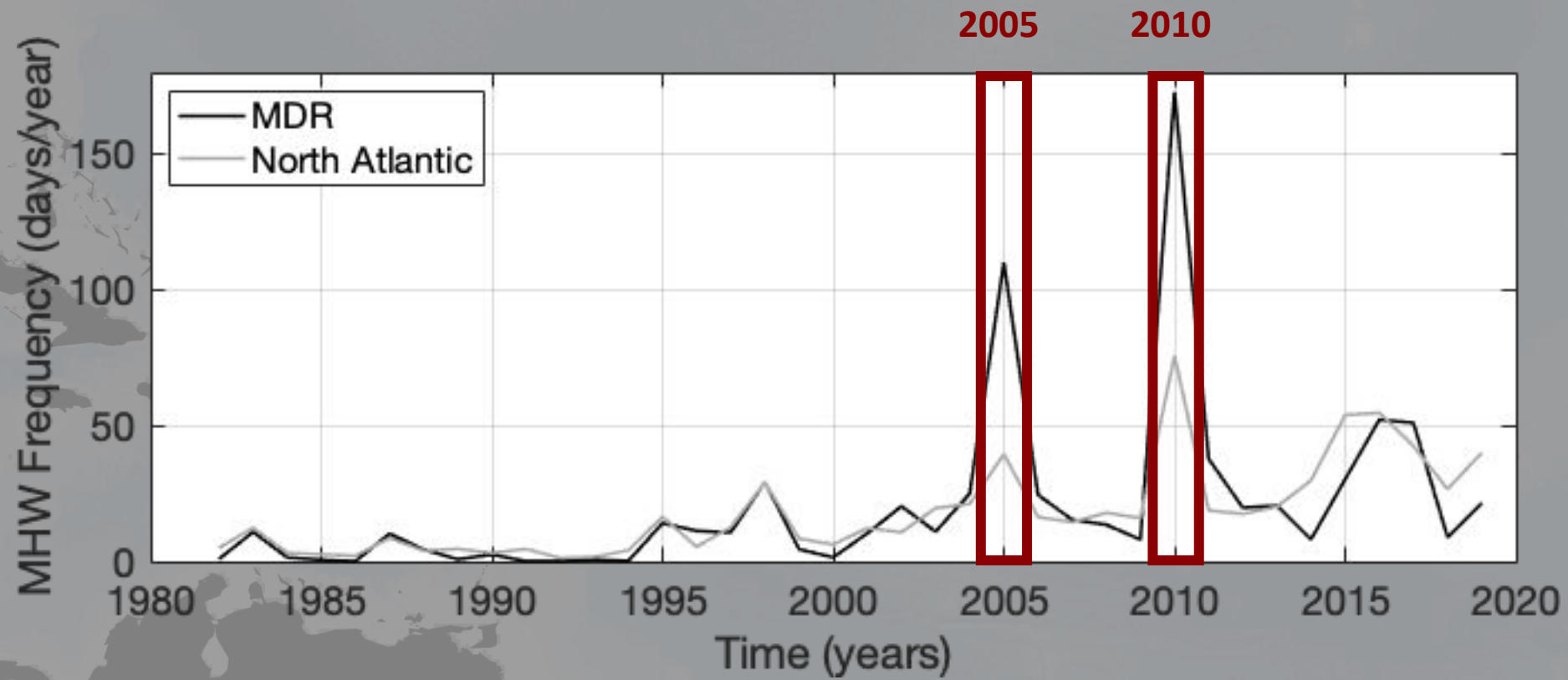


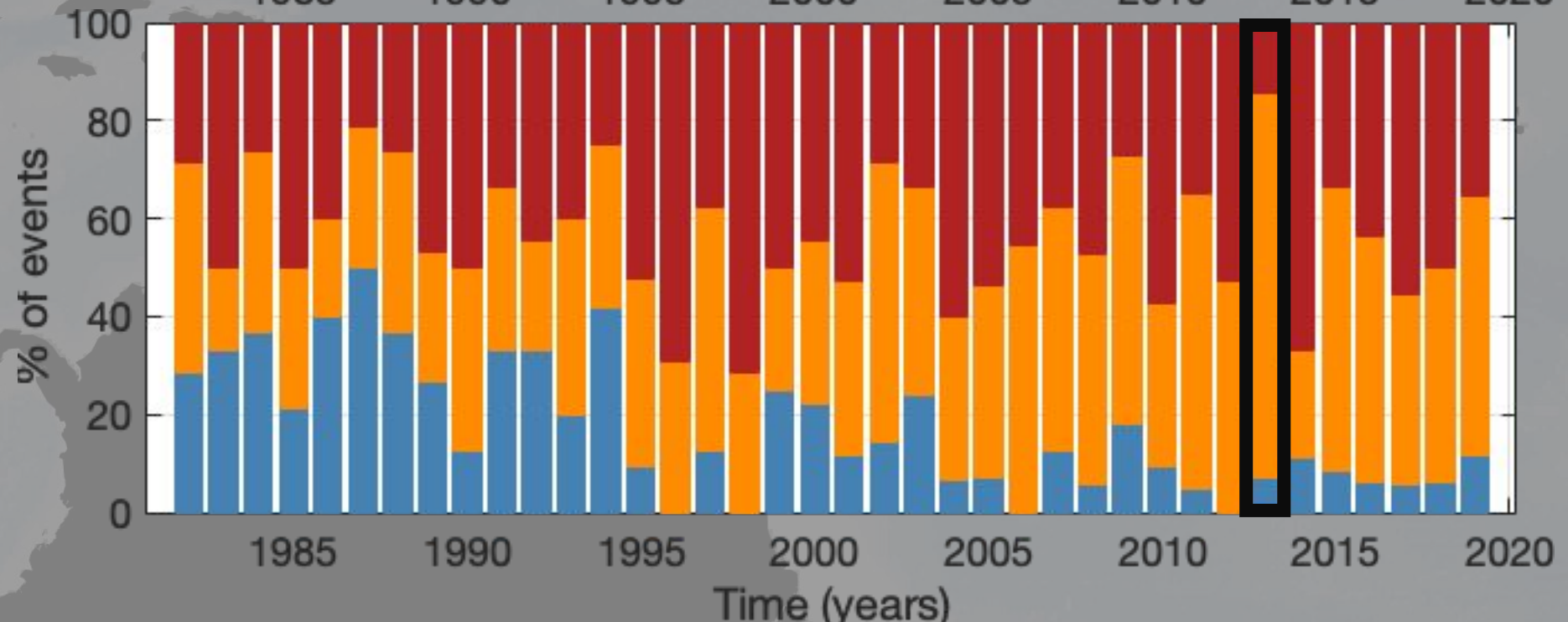
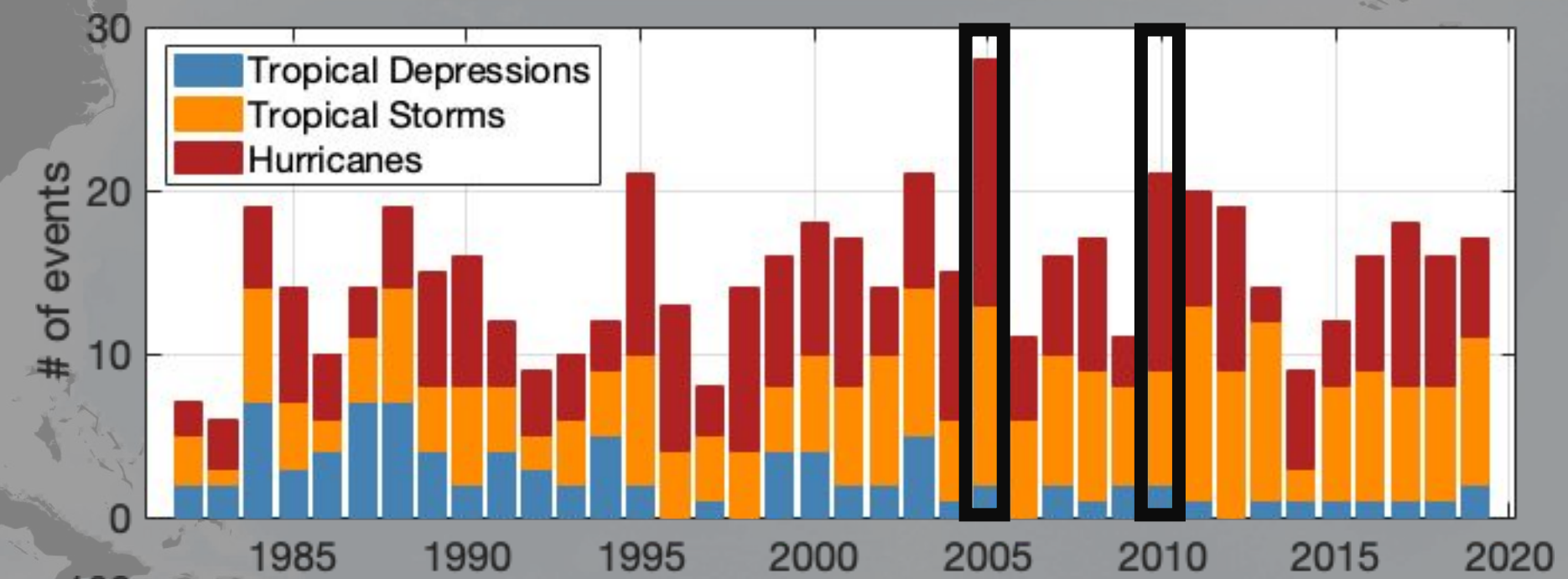
# 2005



# 2010

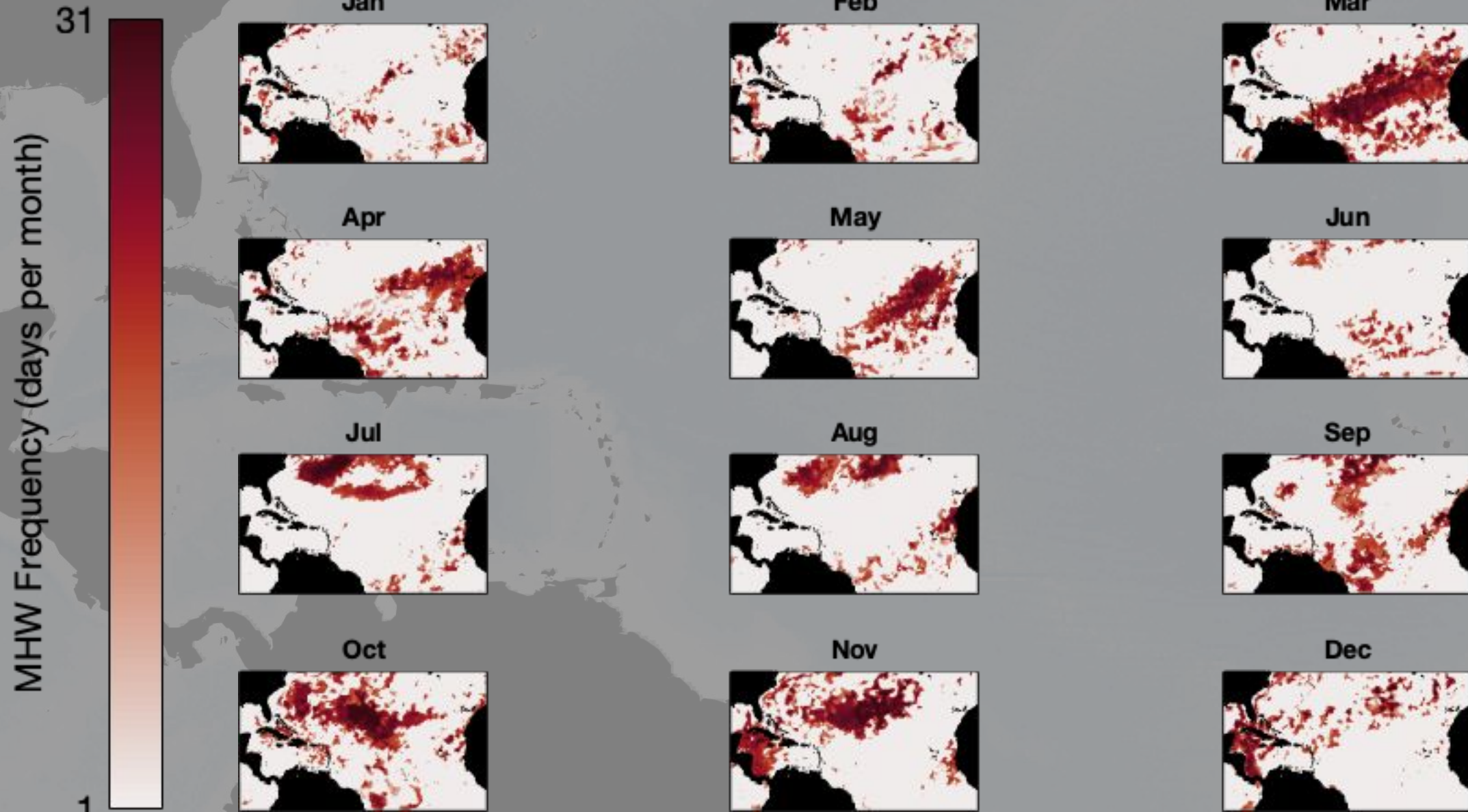


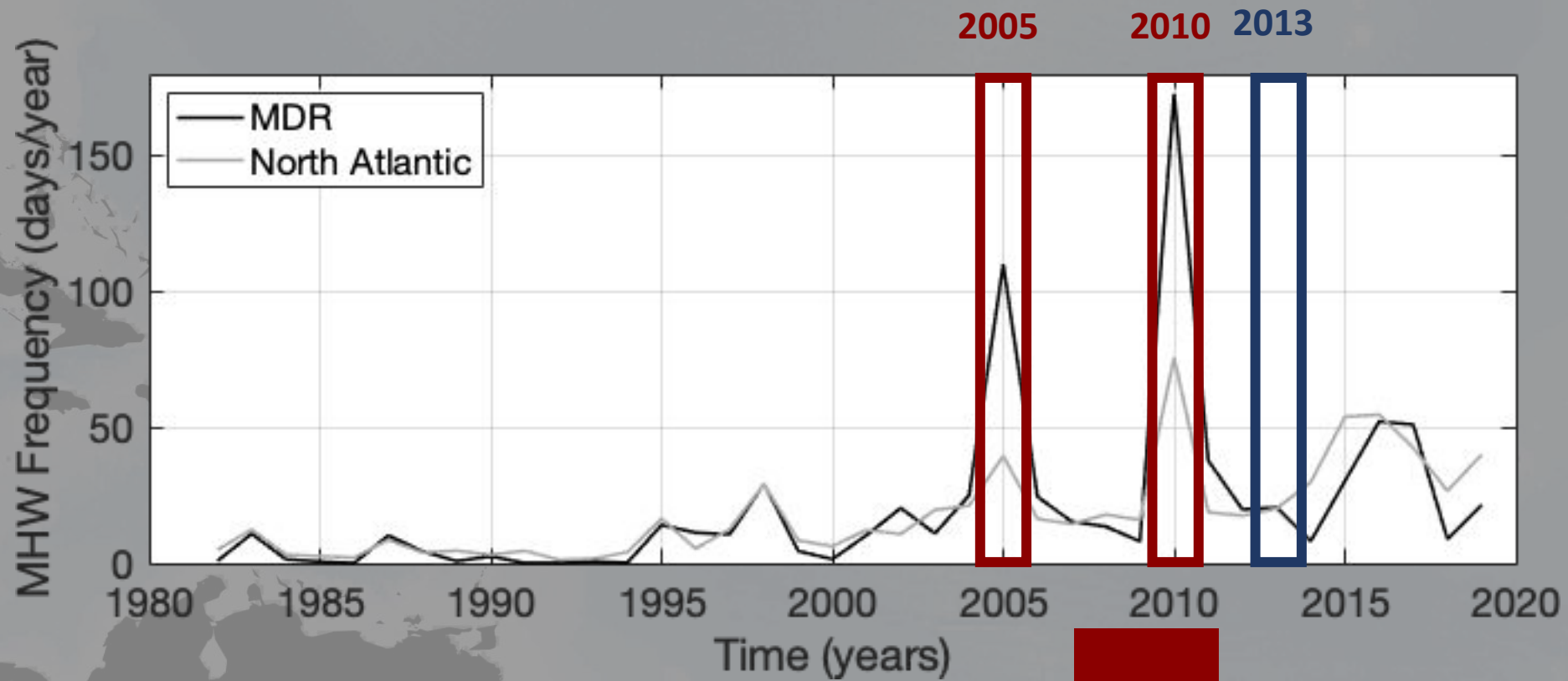






# 2013





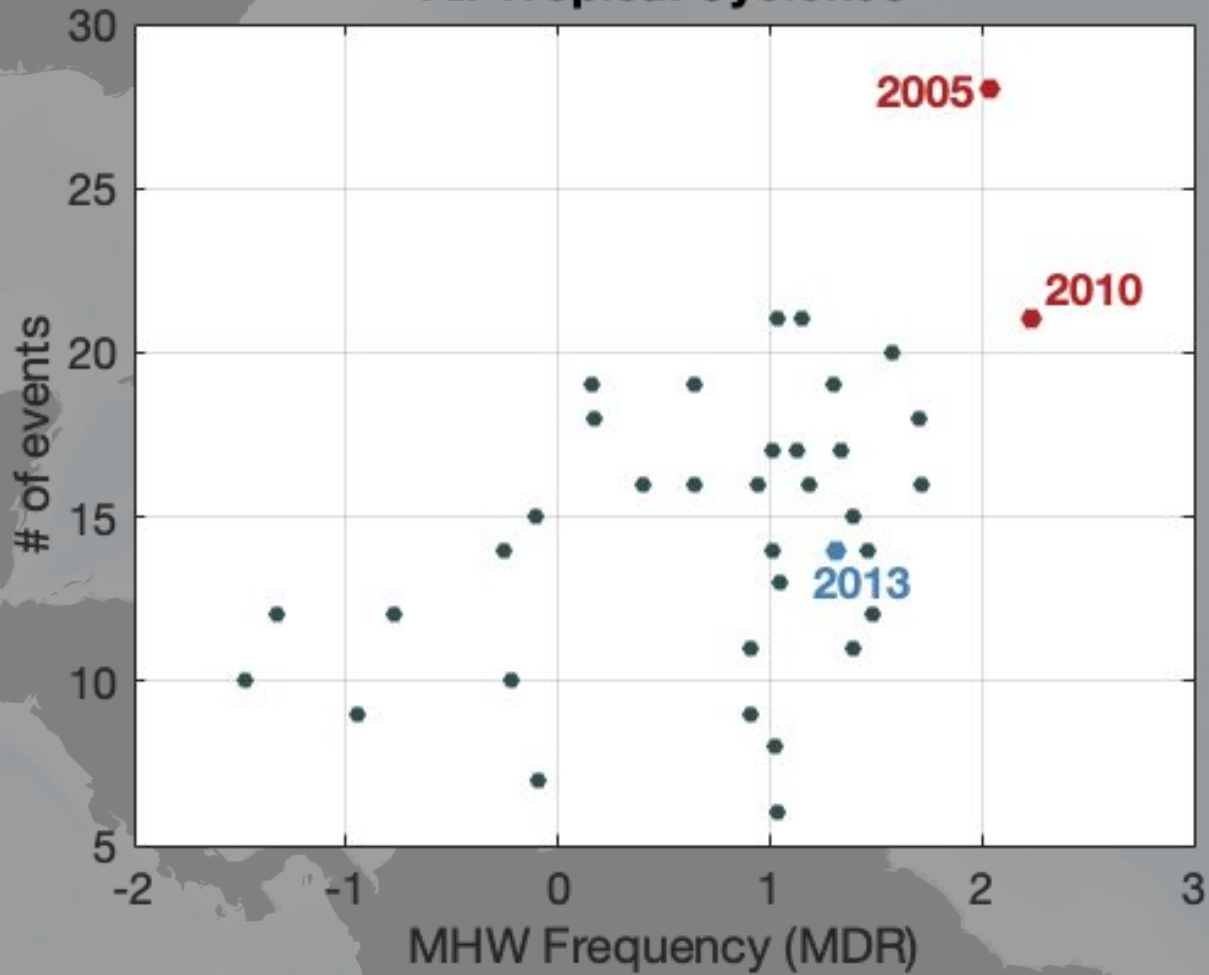
**Rapid Intensification:**

25%

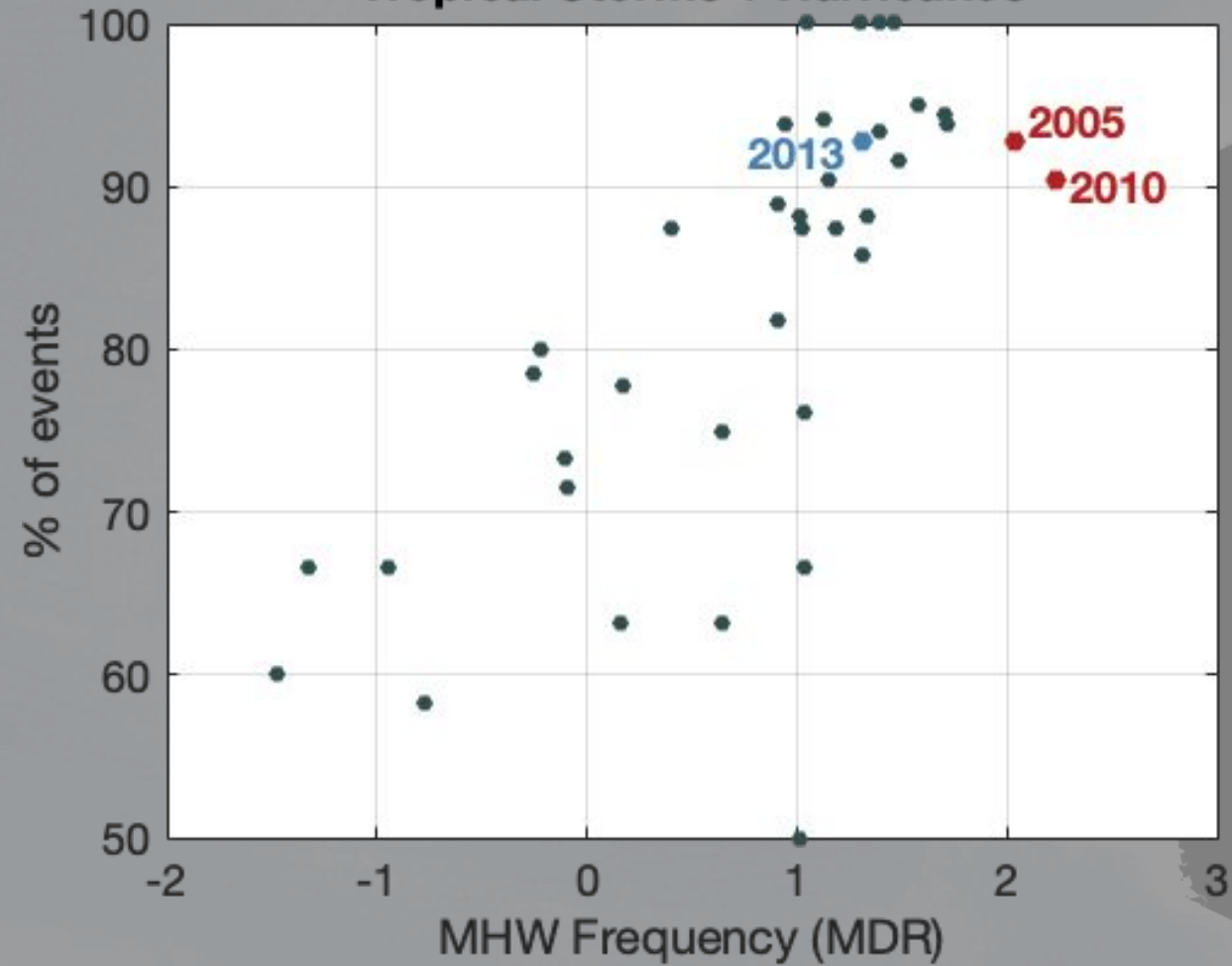
43%

0%

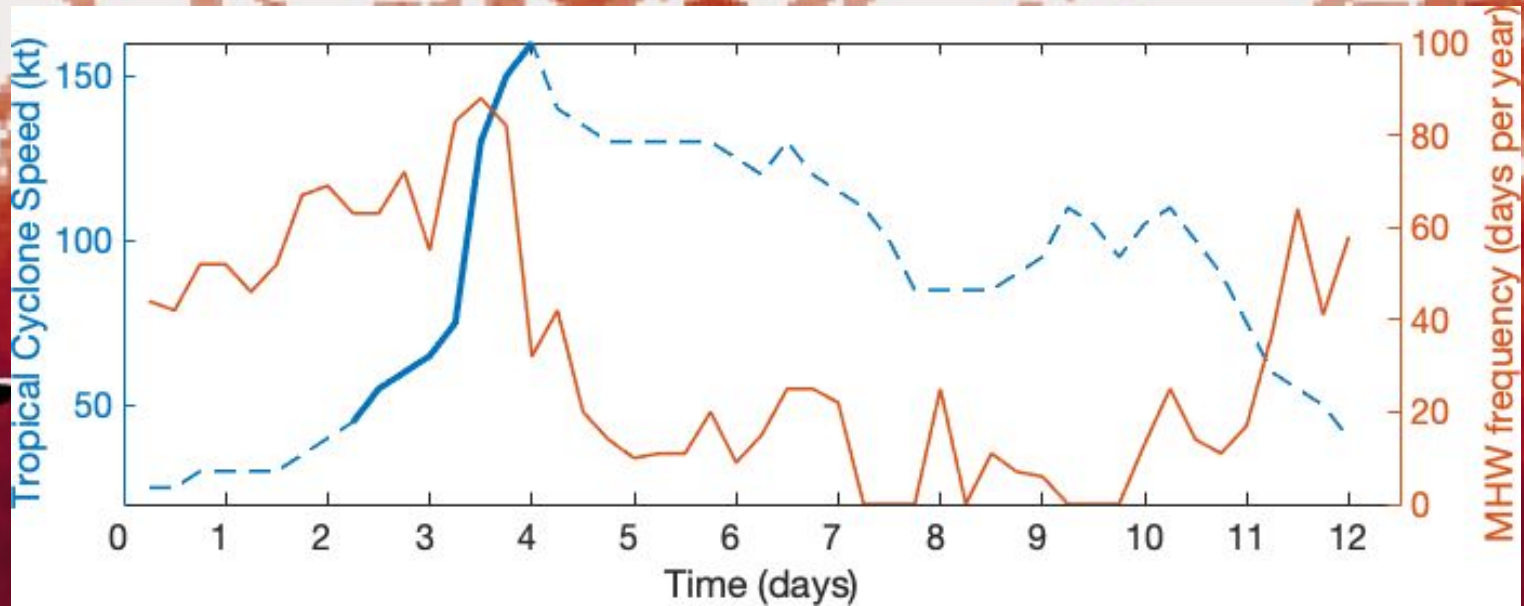
All Tropical Cyclones



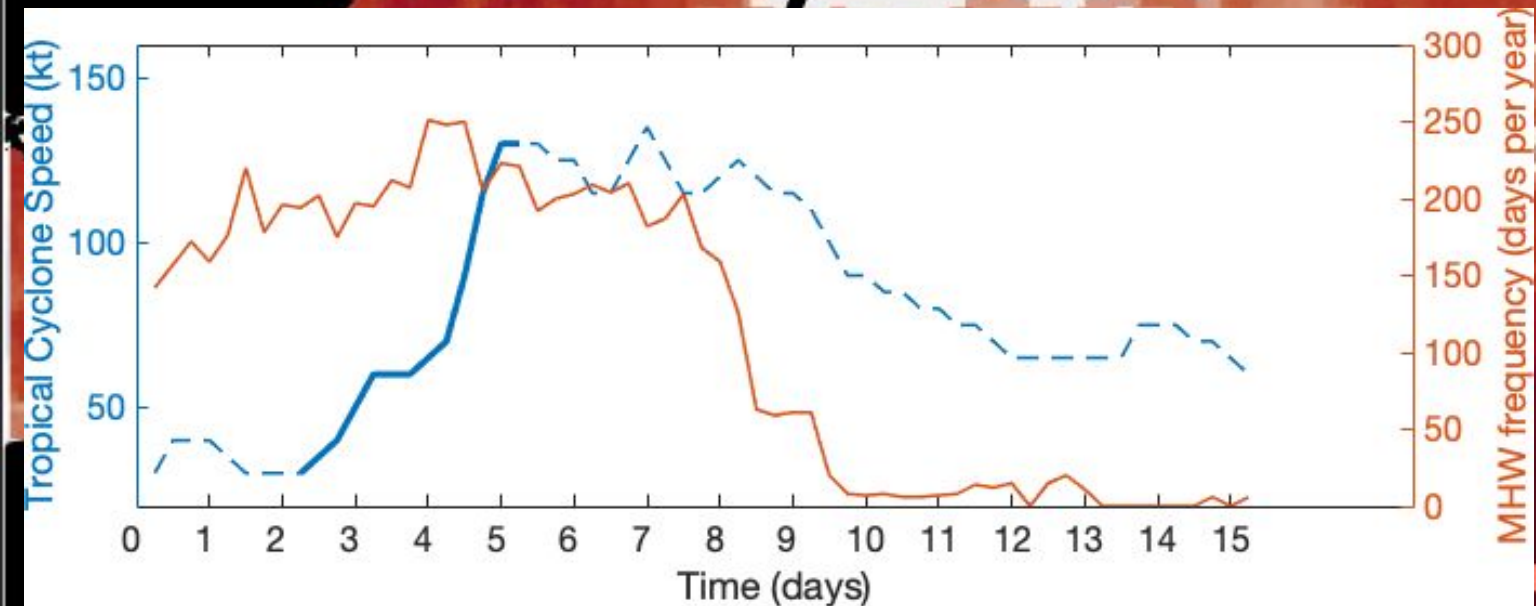
Tropical Storms + Hurricanes



# Hurricane Wilma, Oct 2005

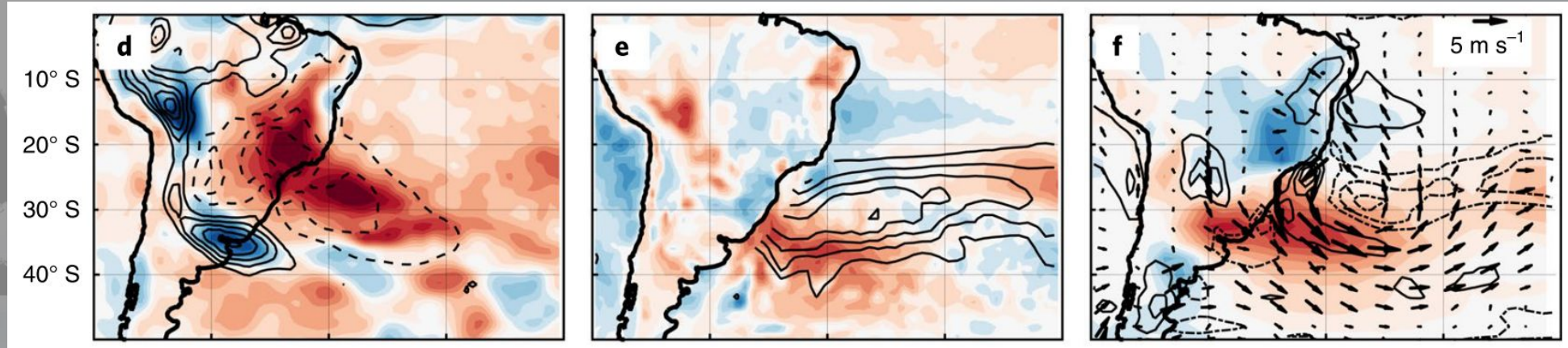


# Hurricane Igor, Sep 2010



1 10 100  
MHW Frequency (days per year)

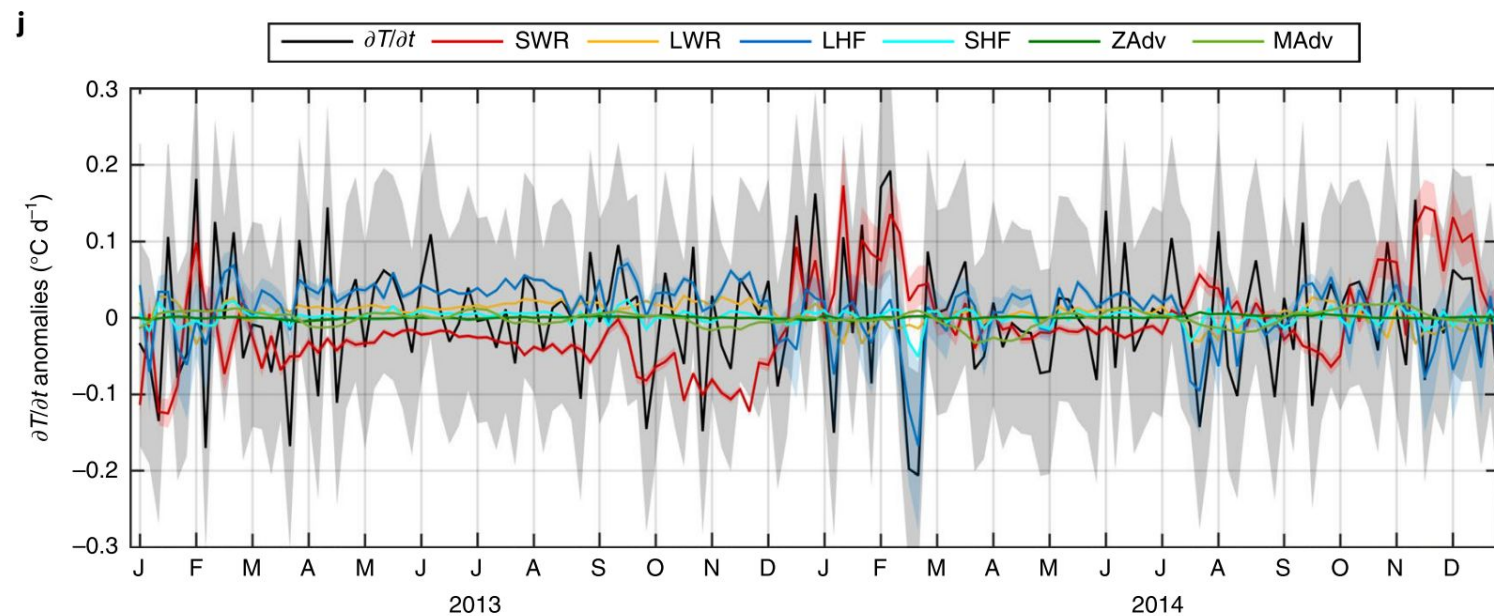
# Moving forward...



## MHW and OHC

- Onset
- Peak
- Decay

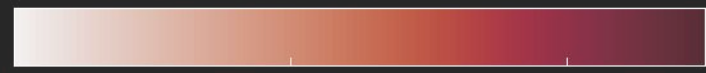
Rodrigues et al.,  
2019



2010

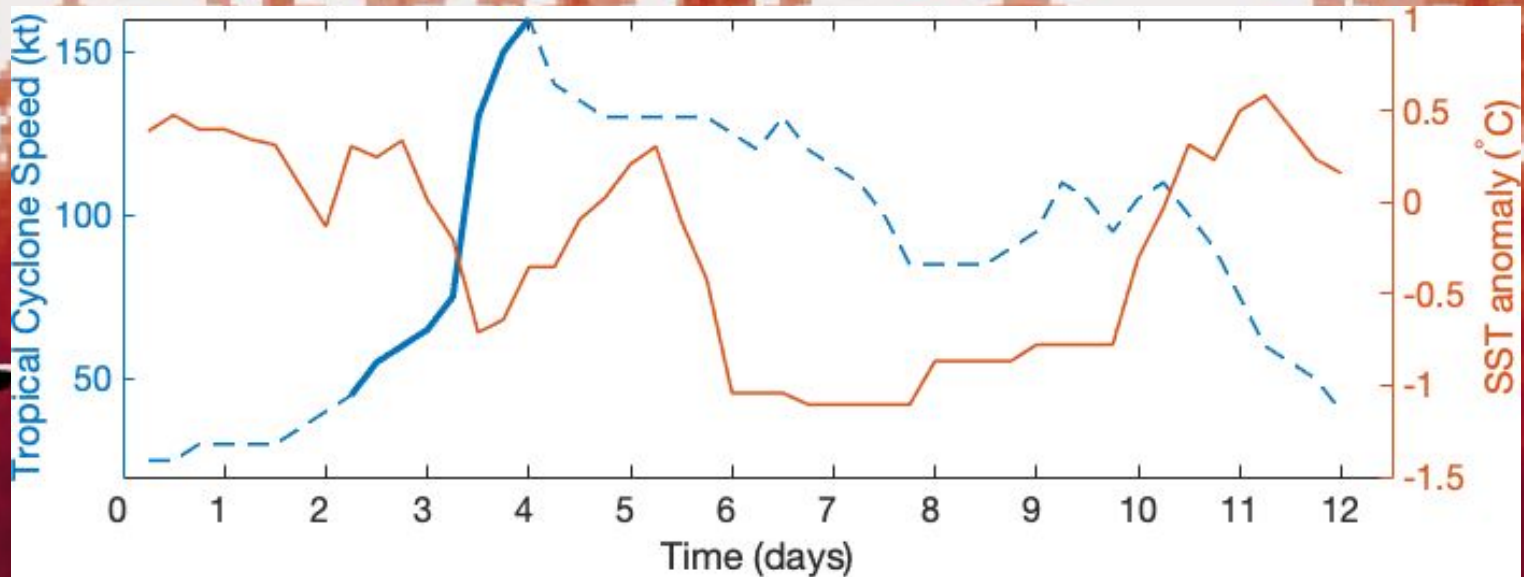
Thank you!

Questions?



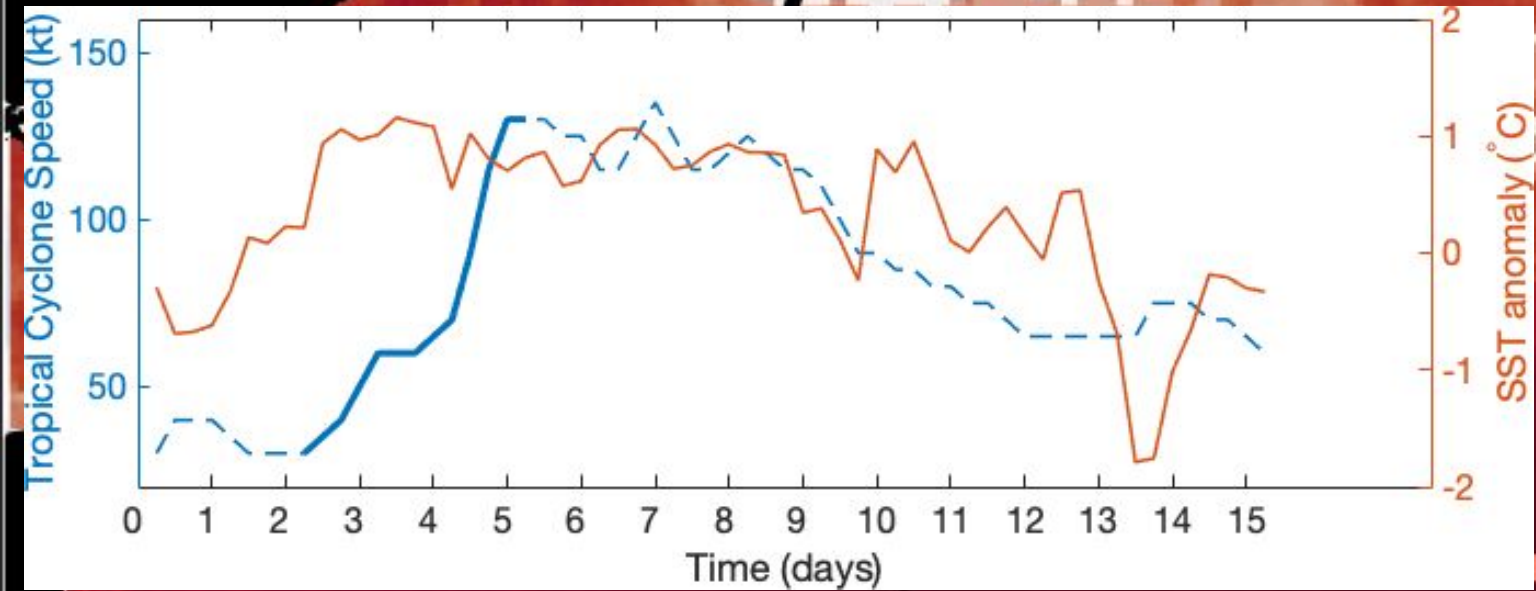
1      10      100  
MHW Frequency (days per year)

# Hurricane Wilma, Oct 2005





# Hurricane Igor, Sep 2010



1 10 100  
MHW Frequency (days per year)