



Cetacean usage of seamounts of the Great Meteor and Madeira-Tore geological complexes

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Direção Regional dos Assuntos do Mar



Objectives

- Cetacean biodiversity
- Usage of seamount ecosystems
- Environmental drivers of biodiversity and temporal patterns



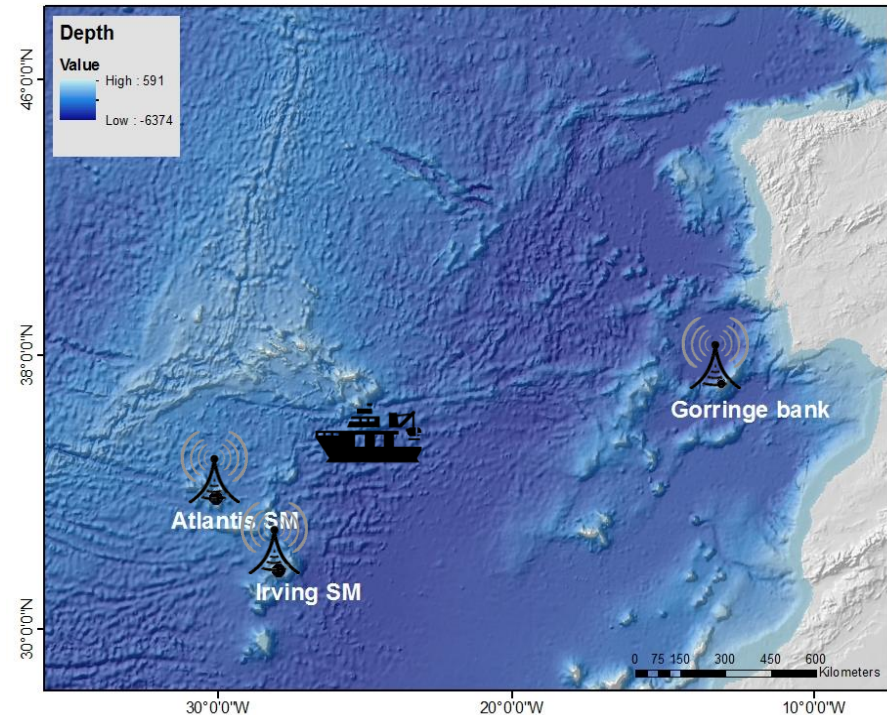
Methods

Visual observations from ship

- Atlantis & Irving

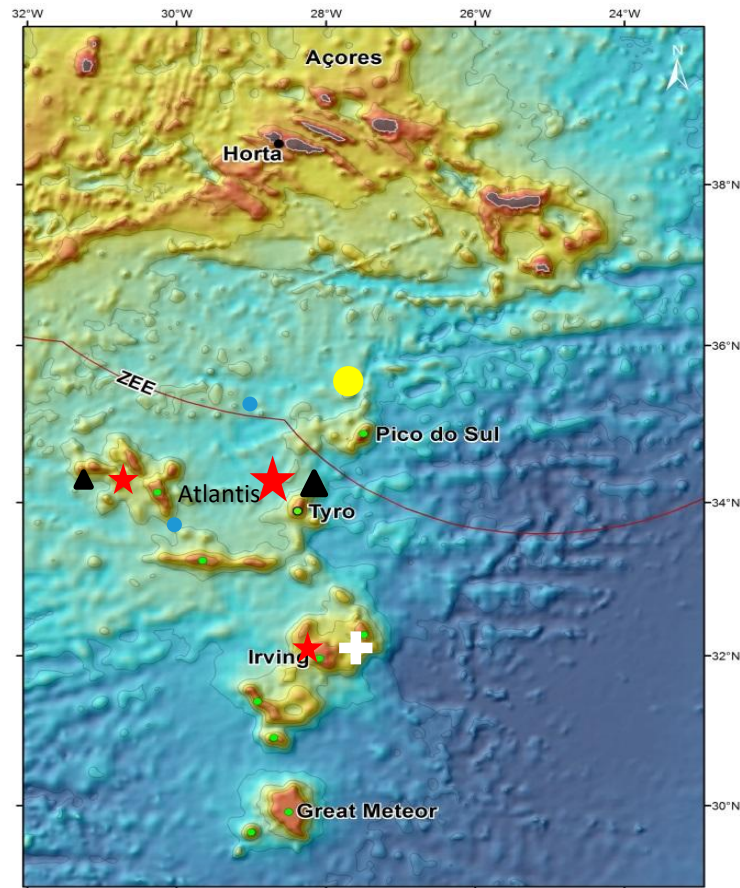
Acoustic monitoring

- Atlantis & Irving: 58 days, Jul-Sep 2015
- Gorringe: 326 days, Sep 2015 – Jul 2016



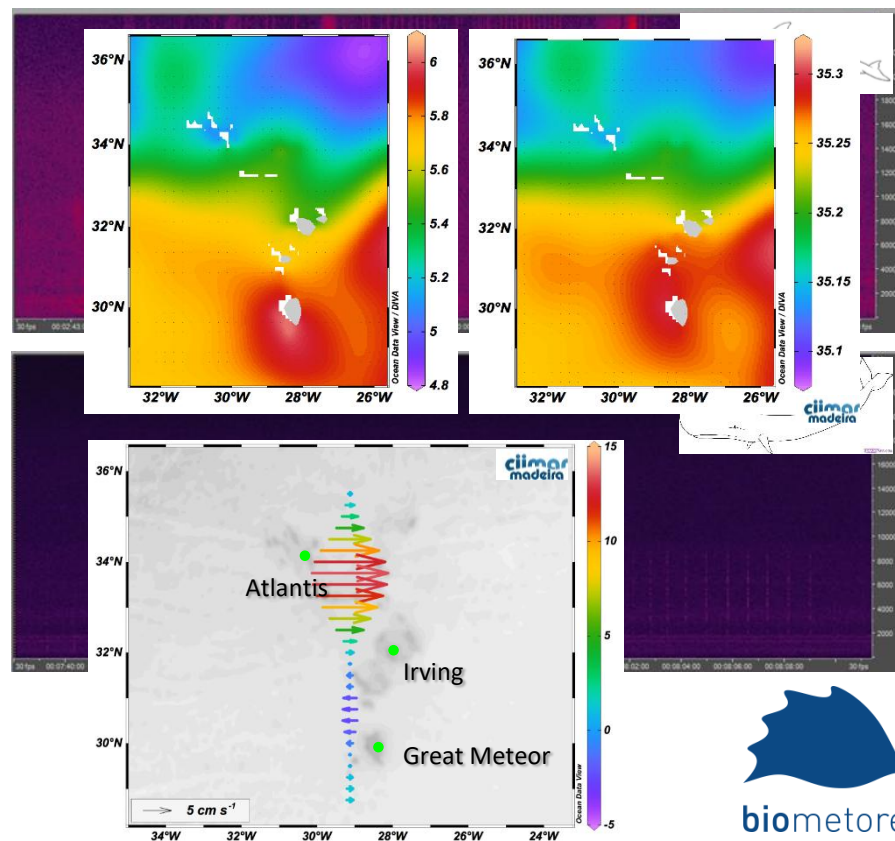
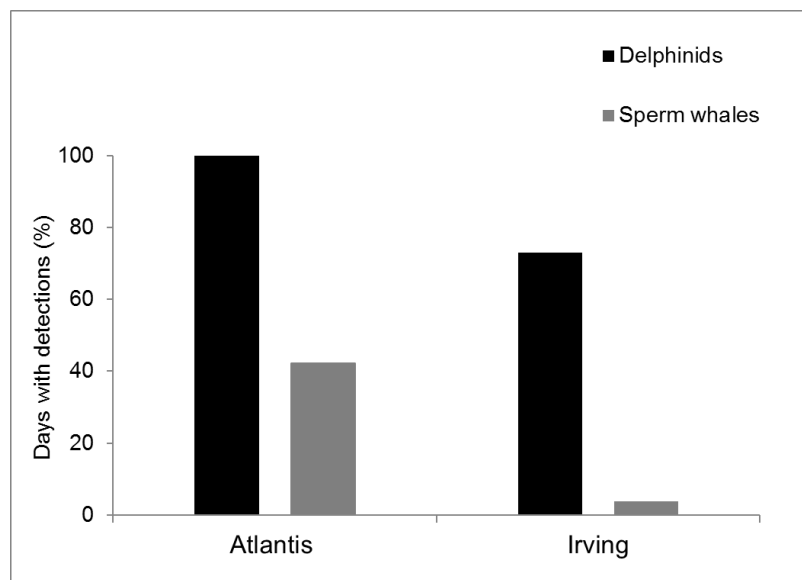
Results & Discussion: Great Meteor

- Low biodiversity and abundance
- Bottlenose dolphin was the most frequently sighted species
- Irving: mixture of temperate and tropical species



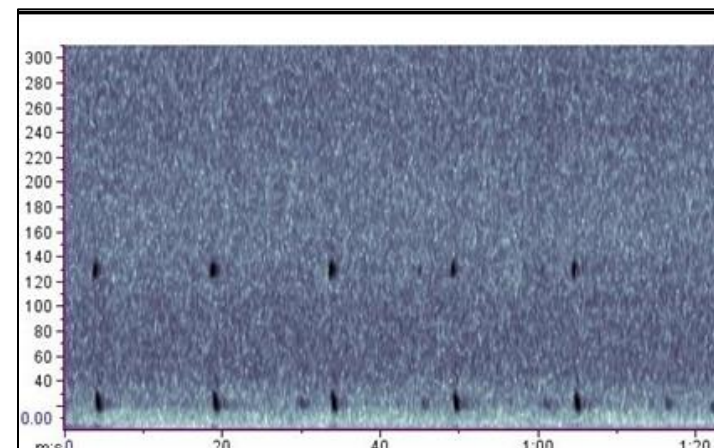
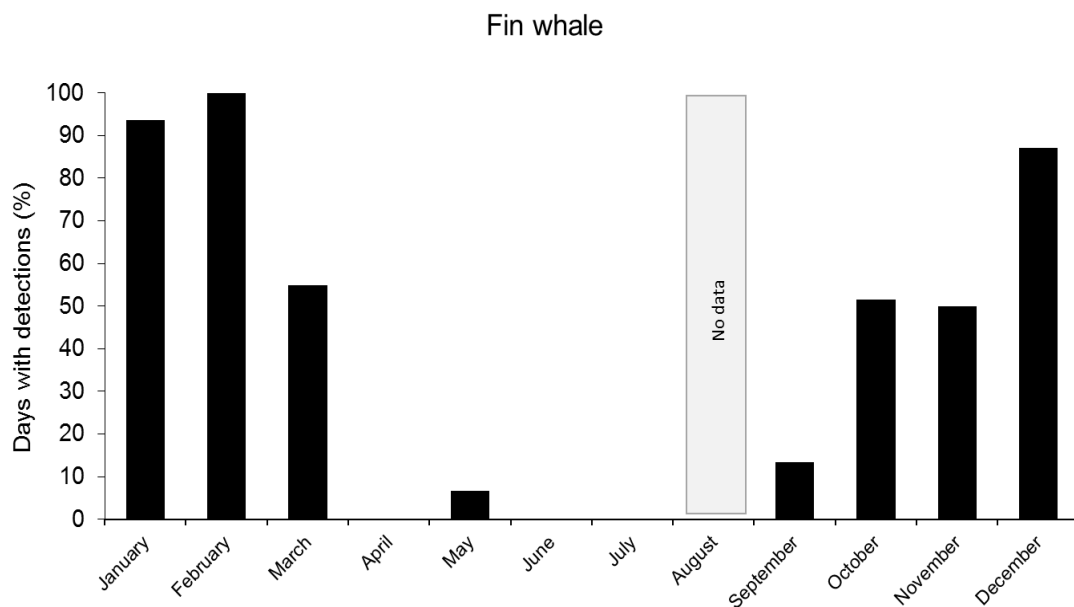
Results & Discussion: Great Meteor

- Atlantis: higher acoustic detections of dolphins & sperm whales
- Most sounds were echolocation clicks indicative of foraging
- Biodiversity and usage patterns may be explained by different climatological regimes and stronger effect of the Azores current in Atlantis

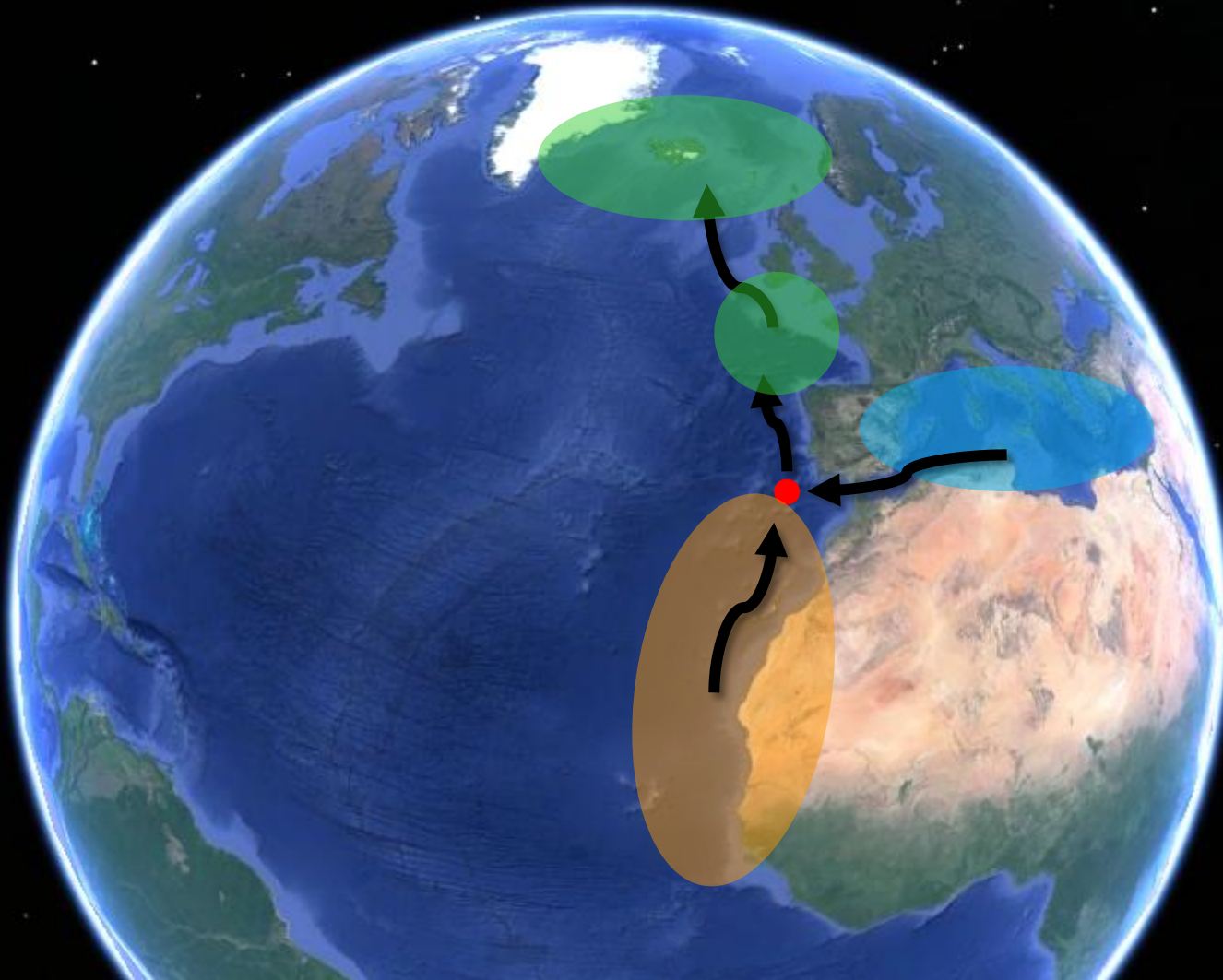


Results & Discussion: Gorringe

- Fin whales frequently detected in autumn-winter
- Sei whale recorded twice
- No detections of blue whales

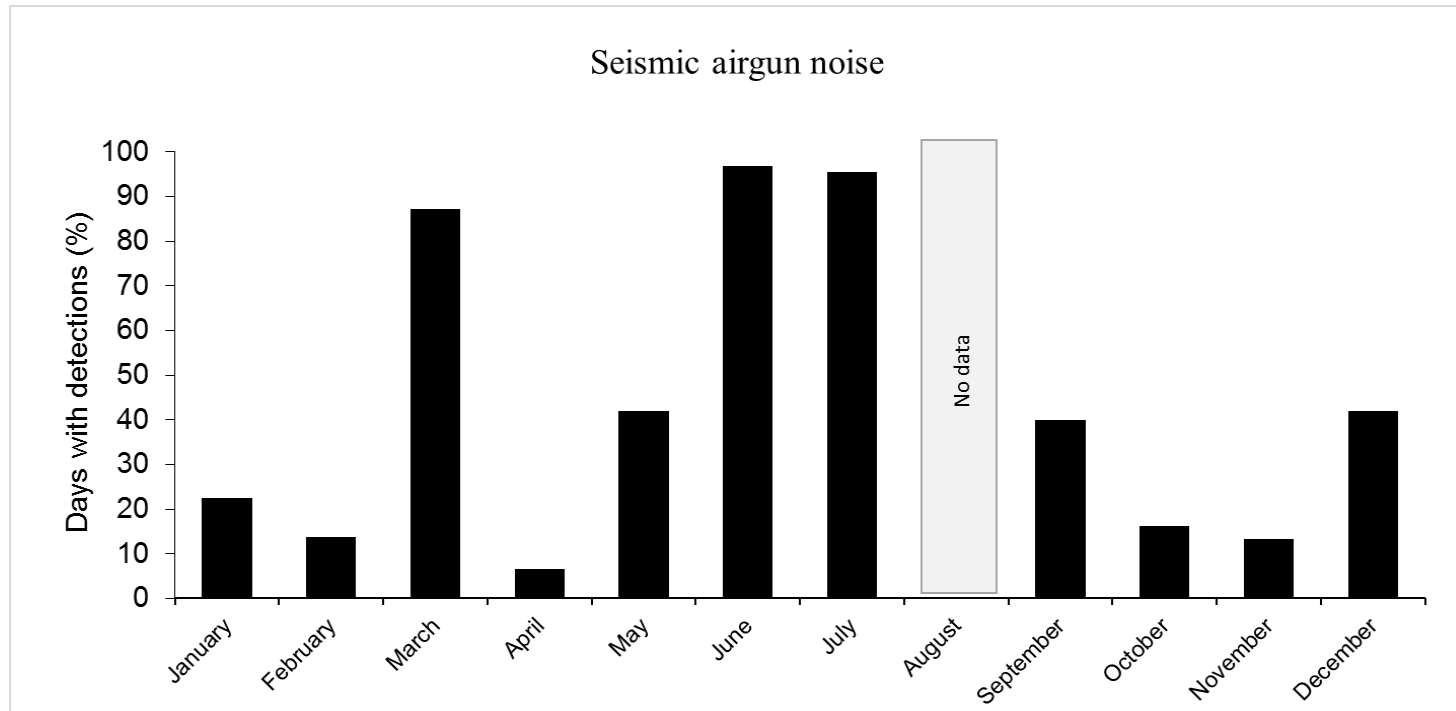


Gorringe: a migratory and/or wintering habitat for fin whales



Conclusions

- Dolphins regularly use seamounts of the Great Meteor to forage and therefore are an important component of these ecosystems
- Azores current crossing the Great Meteor responsible for a biogeographical transition zone in the cetacean community
- Gorringe is a critical habitat for the endangered fin whale



Constant presence of airgun noise from seismic surveys in Gorringle is a major threat to fin whales and other cetaceans



Thank You



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