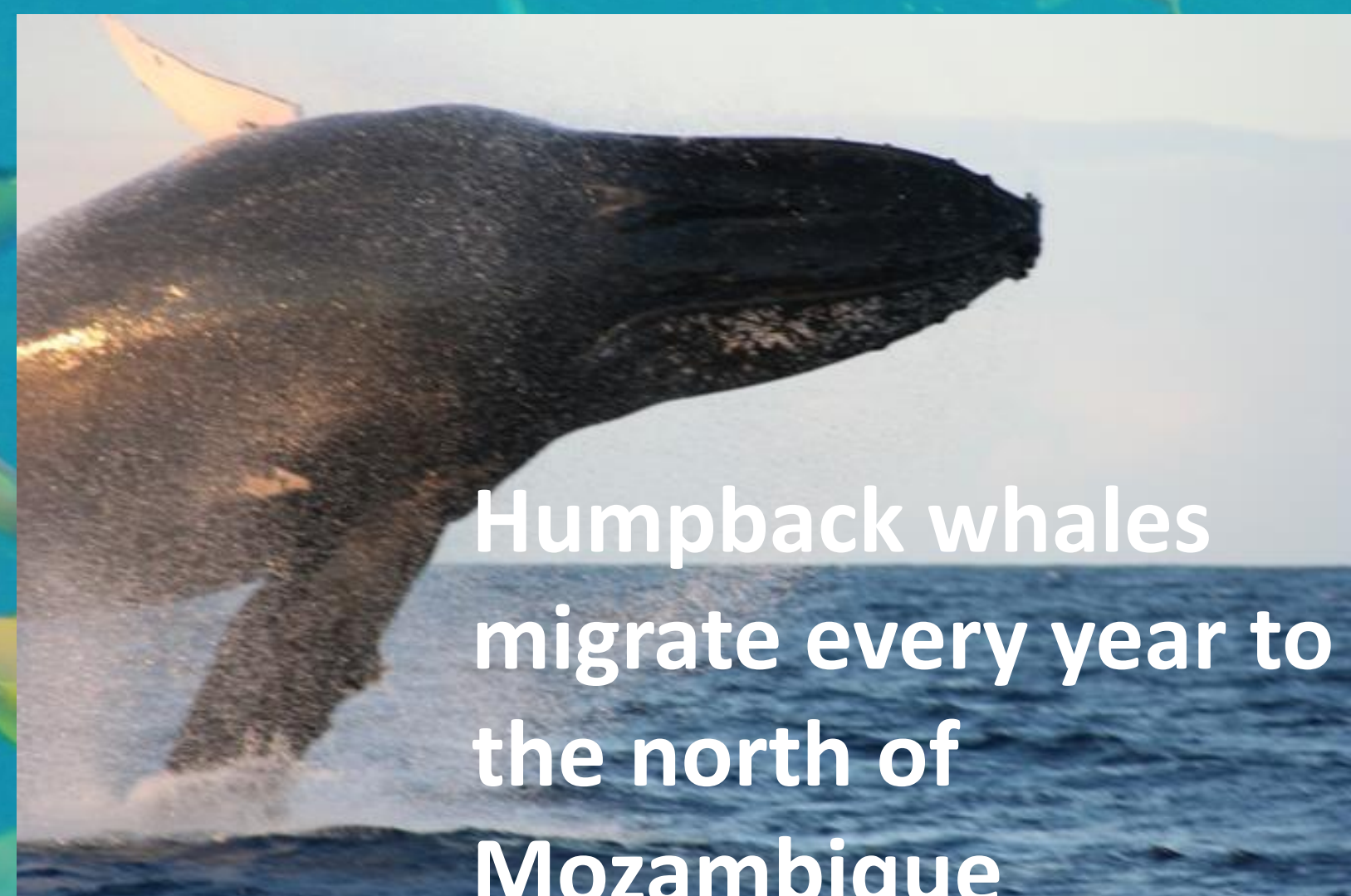


# Biodiversity, Climate change and Gas exploration

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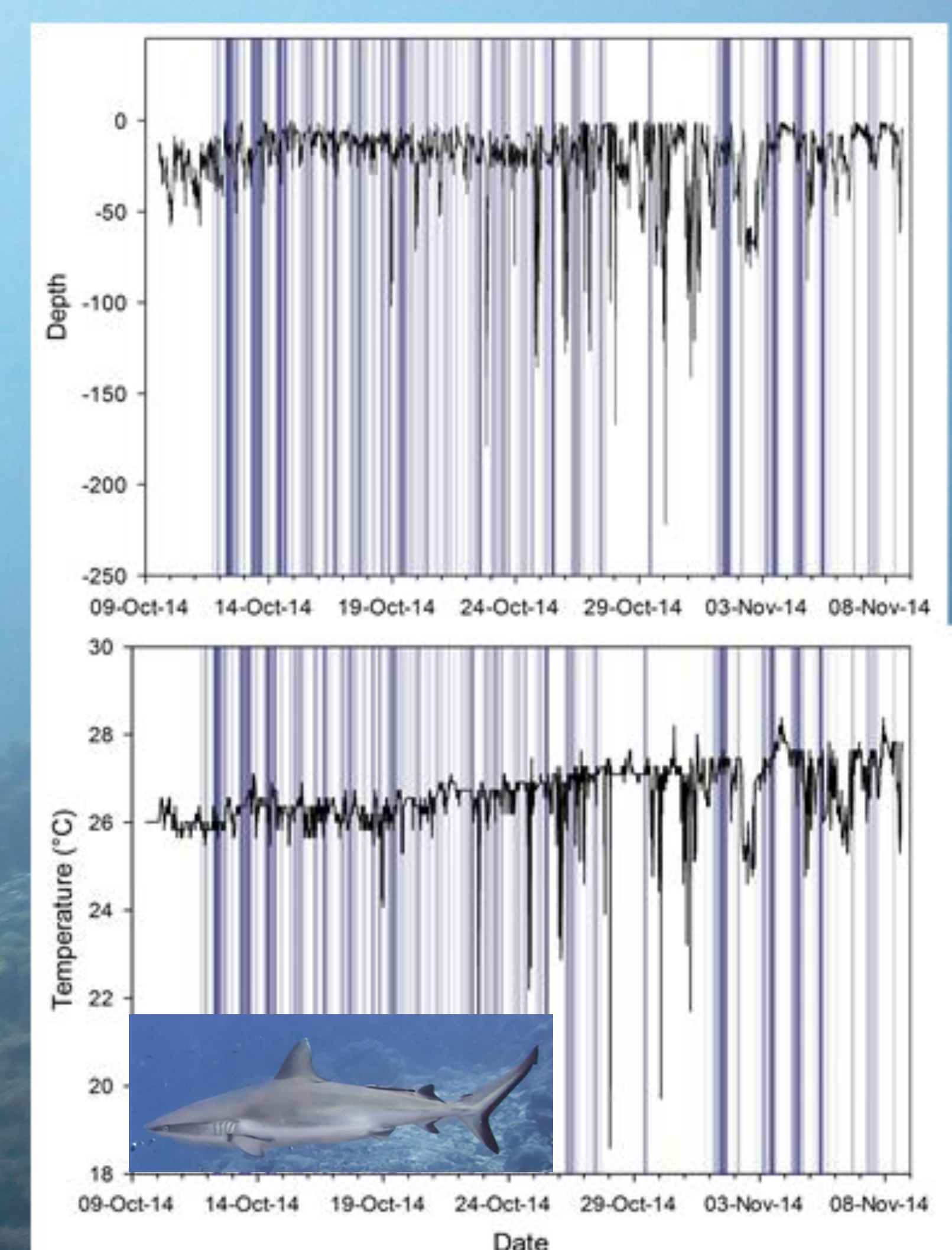
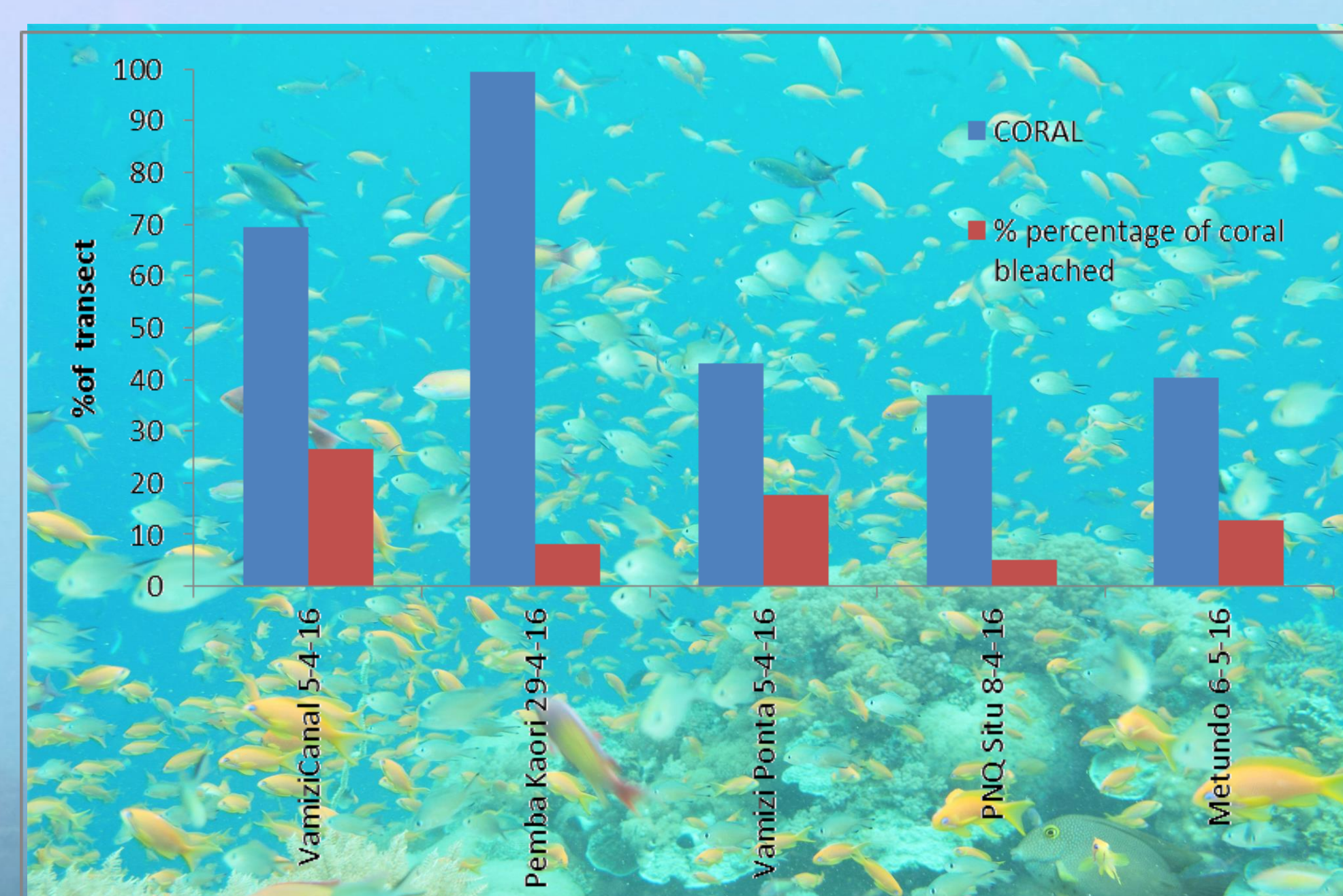
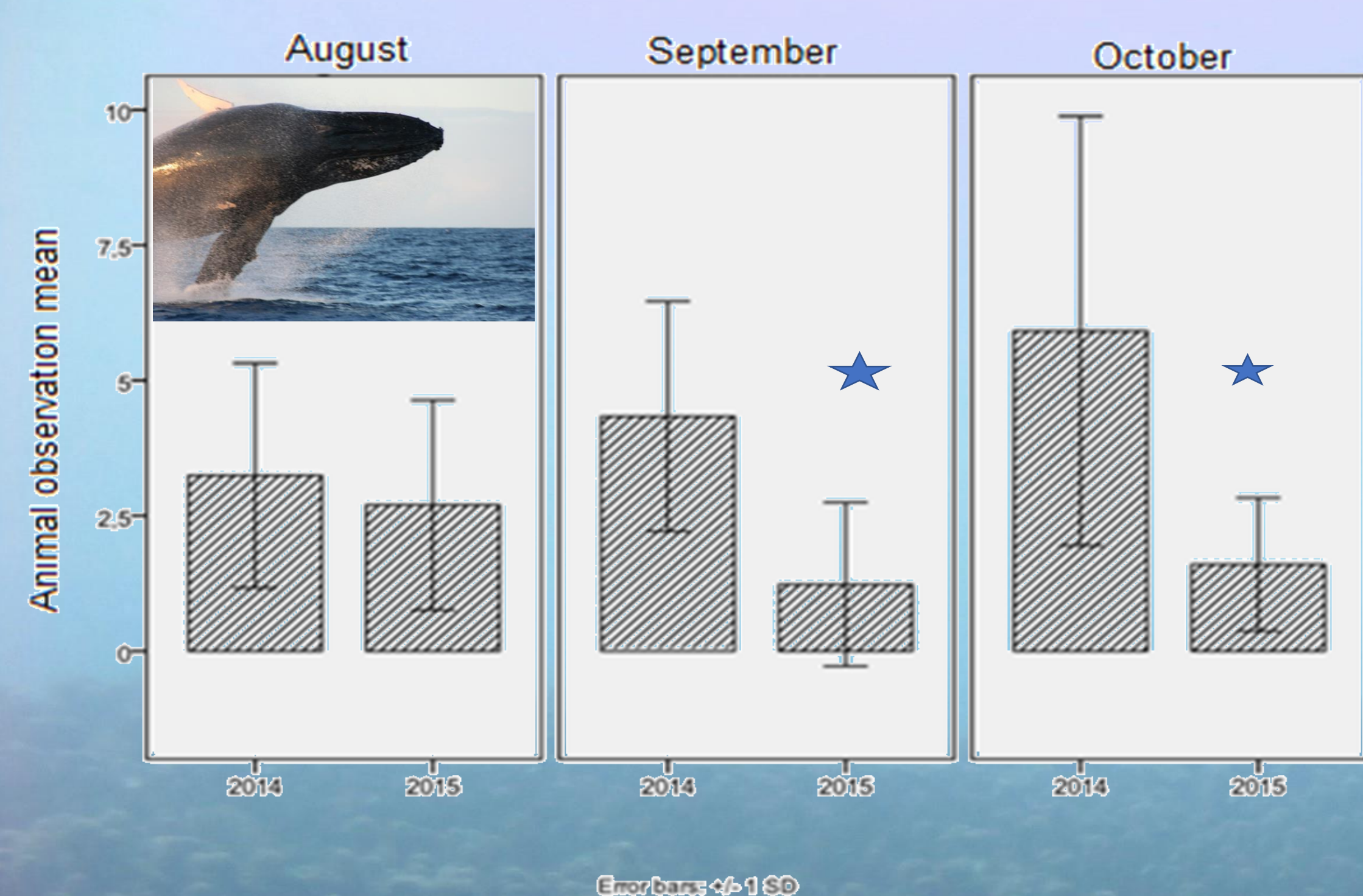
## Abstract

Northern Mozambique is considered the region in the world with the second biggest reef diversity as well as the one containing some of the best preserved reefs in the world. The reefs are formed by species very sensitive to climate changes. However they survived well to the 1998 El Niño, as a result of regional oceanographic phenomena and possibly also due to local *upwellings*. Furthermore, during the years of war, this region was isolated and consequently had no roads and other infra-structures. With the recent economical growth of Cabo Delgado province, due to the discovery of natural gas, new challenges arise to the biodiversity of these unique habitats



The biggest biodiversity of coral and fishes of the Western Indian Ocean. David Obura 2012

One of the last aggregation of reef sharks in the Western Indian Ocean



“Northern Mozambique Quirimbas reefs have a variety of refugia, environmental variability, and high diversity that give these reefs a high potential to adapt to rapid climate change. If this region is to provide adaptive potential to climate change, fishing at a sustainable level and maintaining reef fish biomass, life histories, and functions is a high priority.” Tim McClanahan, 2016

## and Gas exploration

- Exploitation is on high seas -> will have little impact
- Pipeline passage and Gas plant works -> larger impact but only in the construction phase
- “Feather clouds” from cutting and sedimentation-> using the right methodology will reduce the effect
- The need for fishing closures in affected areas-> will have a positive effect on coral communities
- Noise and boat movement will have an impact in marine mammals
- Human pollution and maritime traffic -> ???????