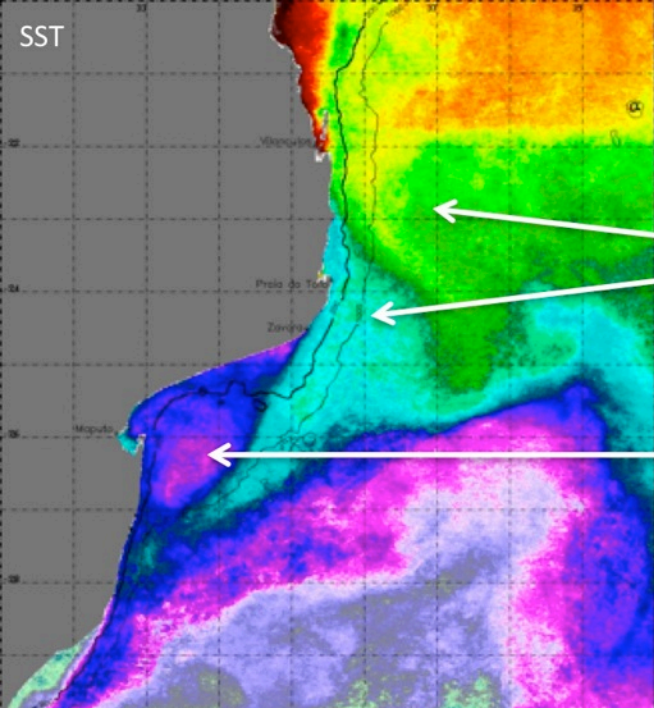


# November/December 2011 oceanography report on southern Mozambique with focus on Tofo's whale sharks



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Marites Canto  
Scarla Weeks



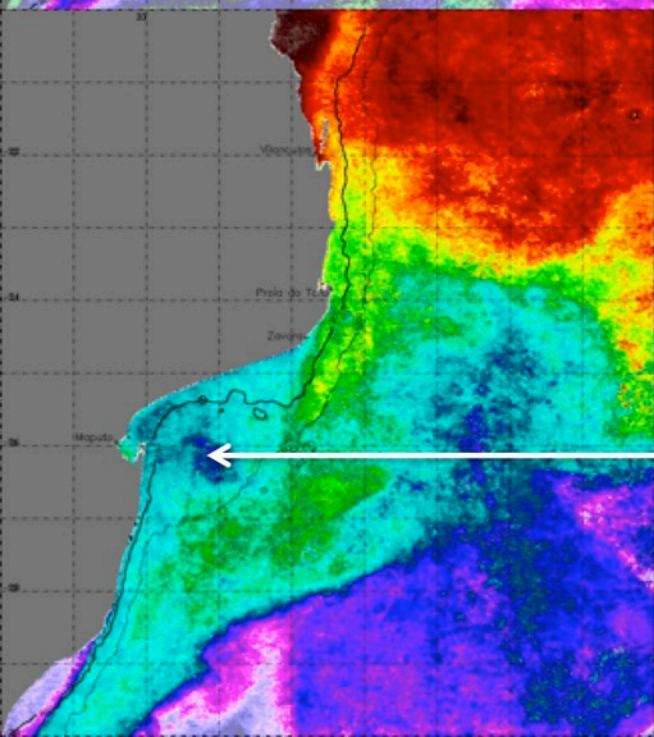


Monthly means November

→ Only intense, persistent features  
apparent in monthly images

Eddy dipole

DB cyclonic eddy

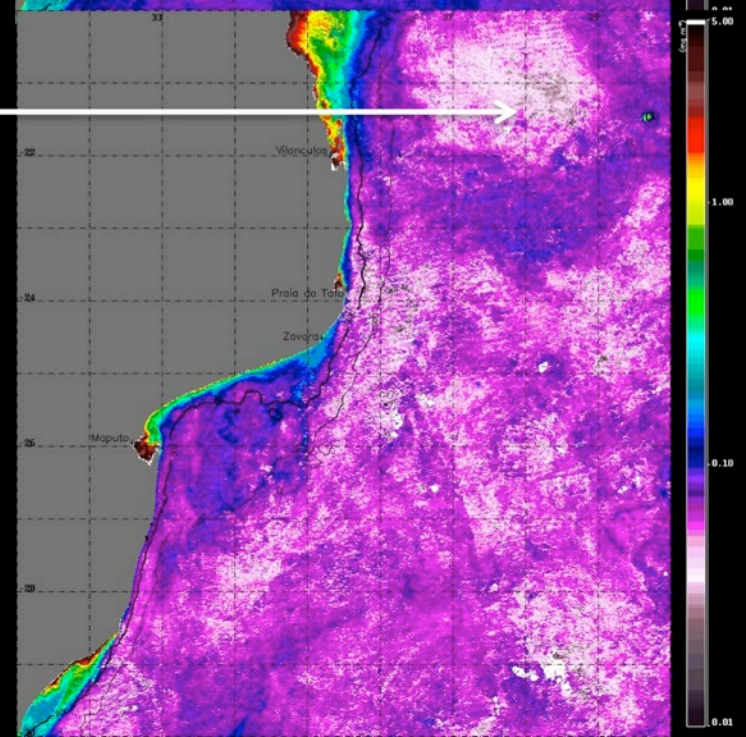
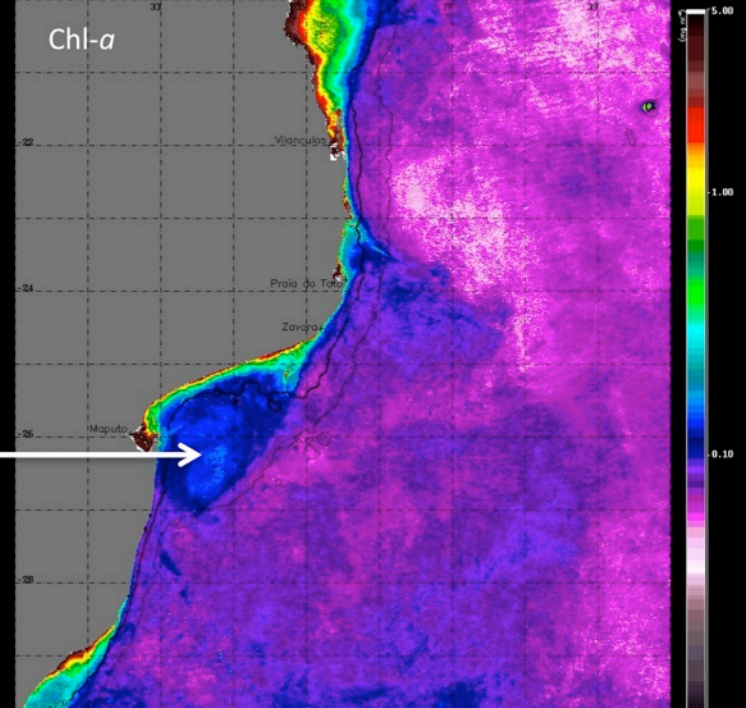


Monthly means December

Large anticyclone

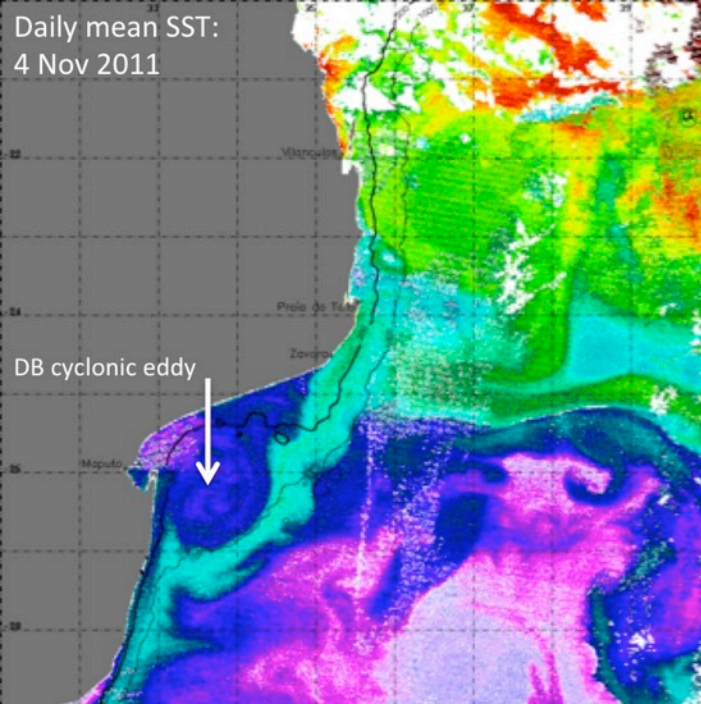
Weaker DB cyclonic eddy

Chl-*a*

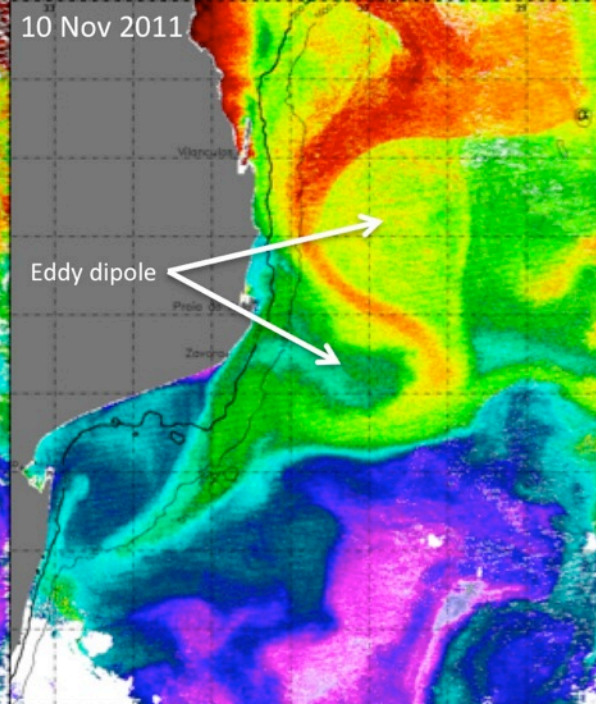




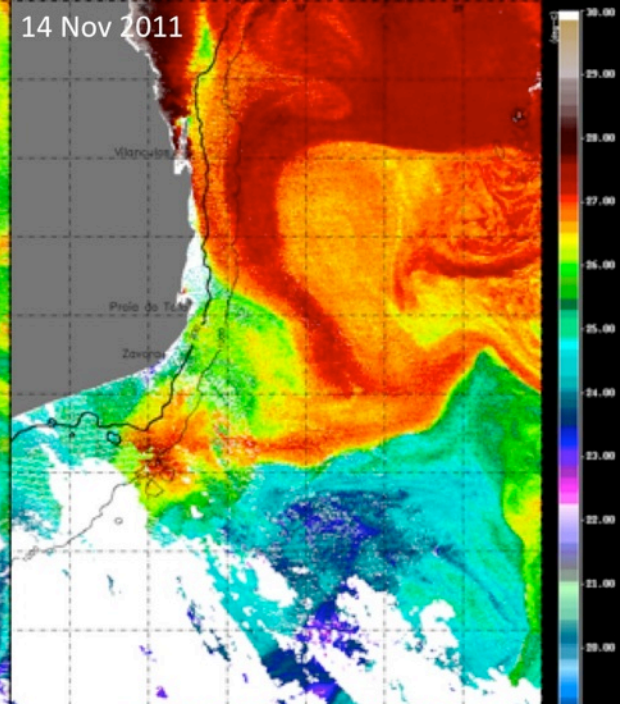
Daily mean SST:  
4 Nov 2011



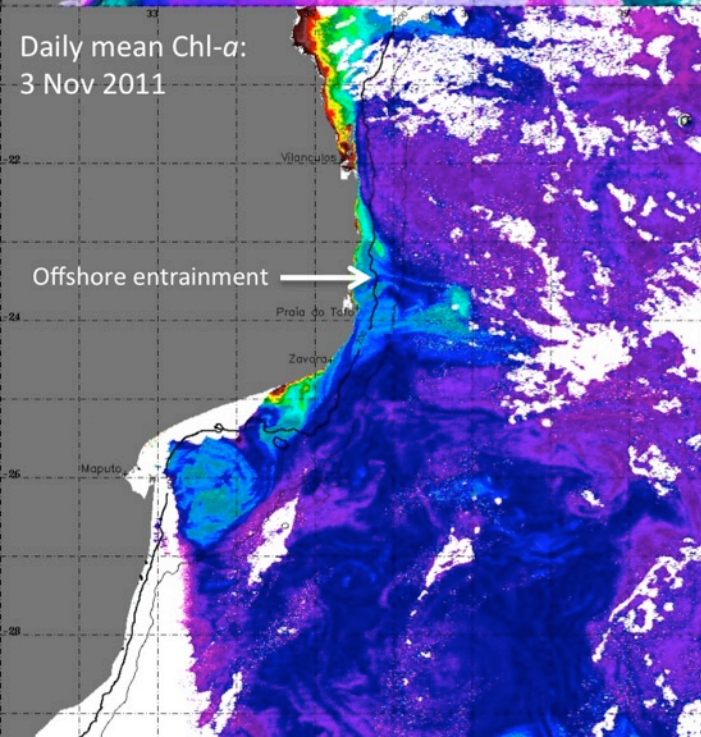
10 Nov 2011



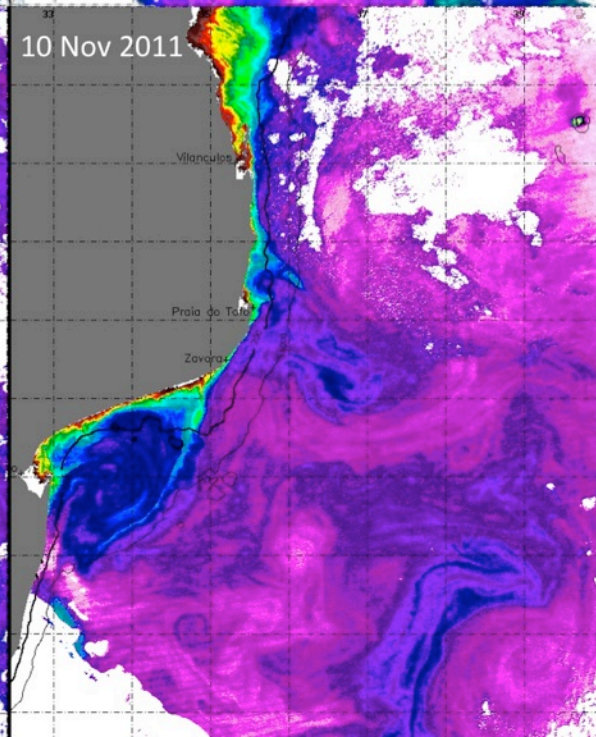
14 Nov 2011



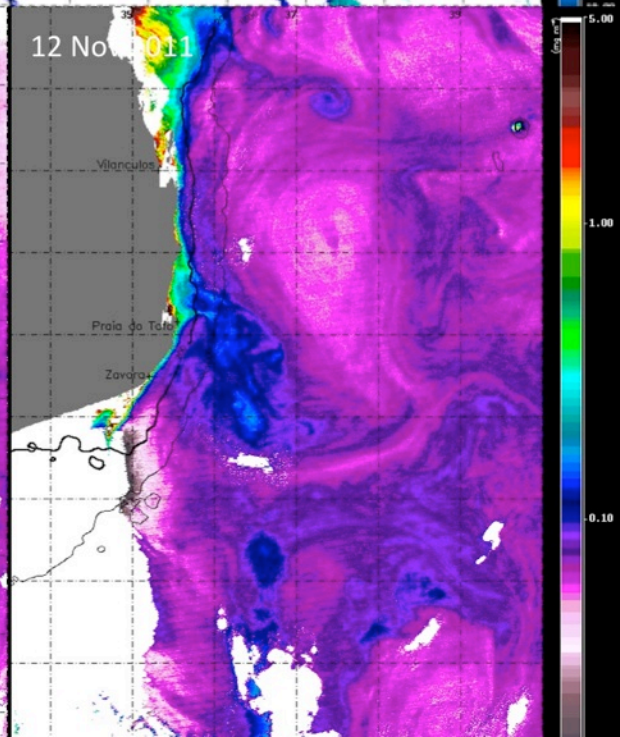
Daily mean Chl- $a$ :  
3 Nov 2011



10 Nov 2011



12 Nov 2011



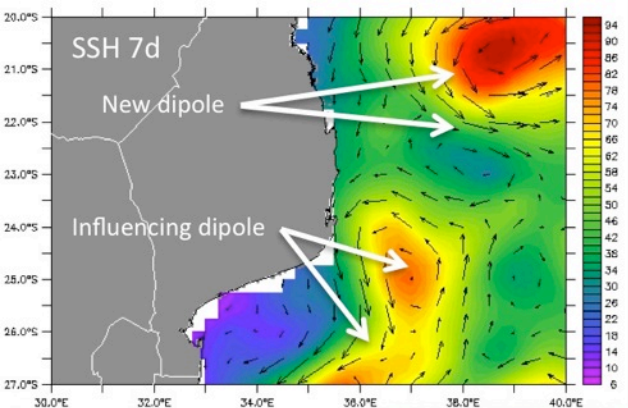


24 – 30 Nov

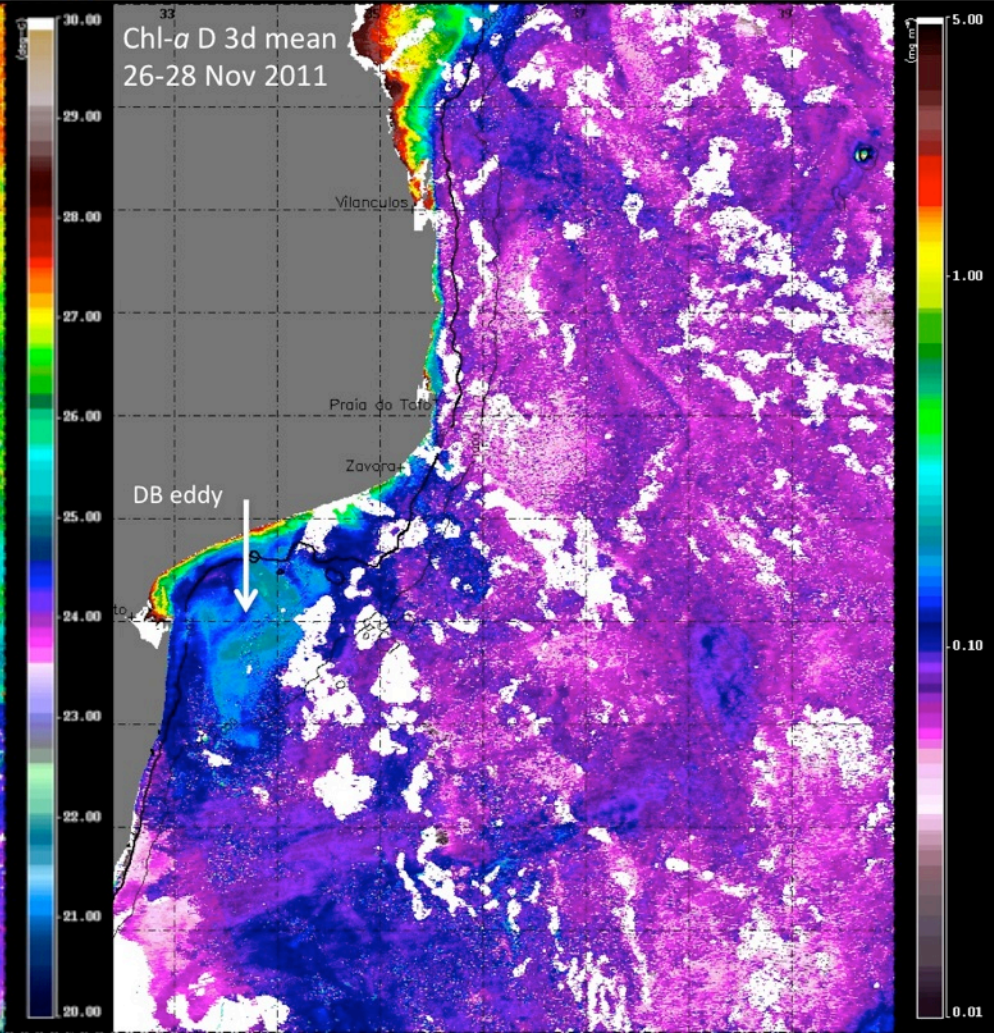
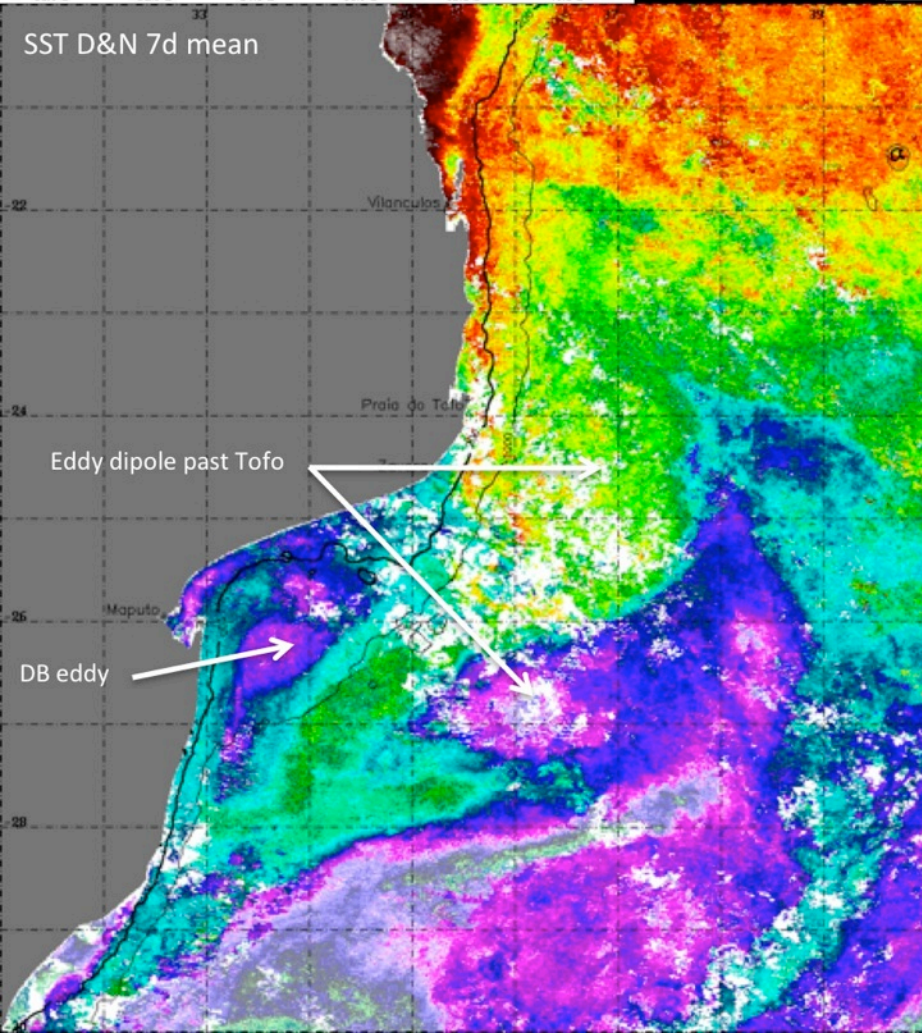
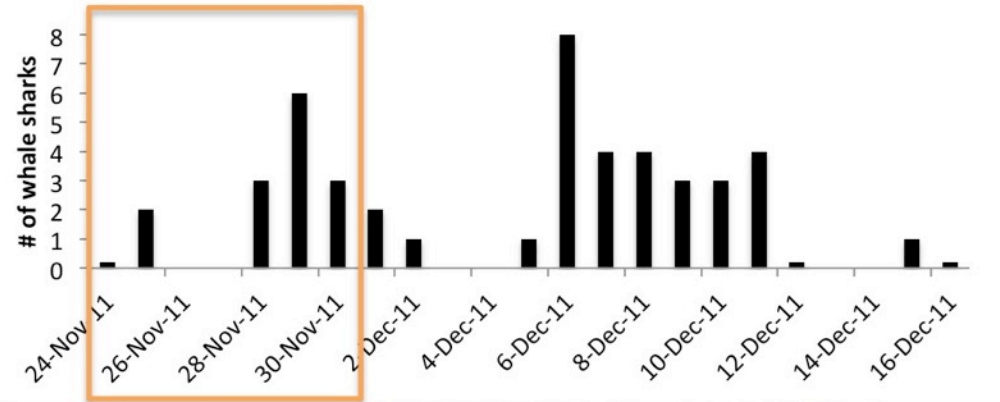
- 2.8 whale sharks seen per trip
- No feeding
- Large aggregation reported from north Tofo Bay
- Coincides with frontal boundary of the anticyclone in the passing eddy dipole







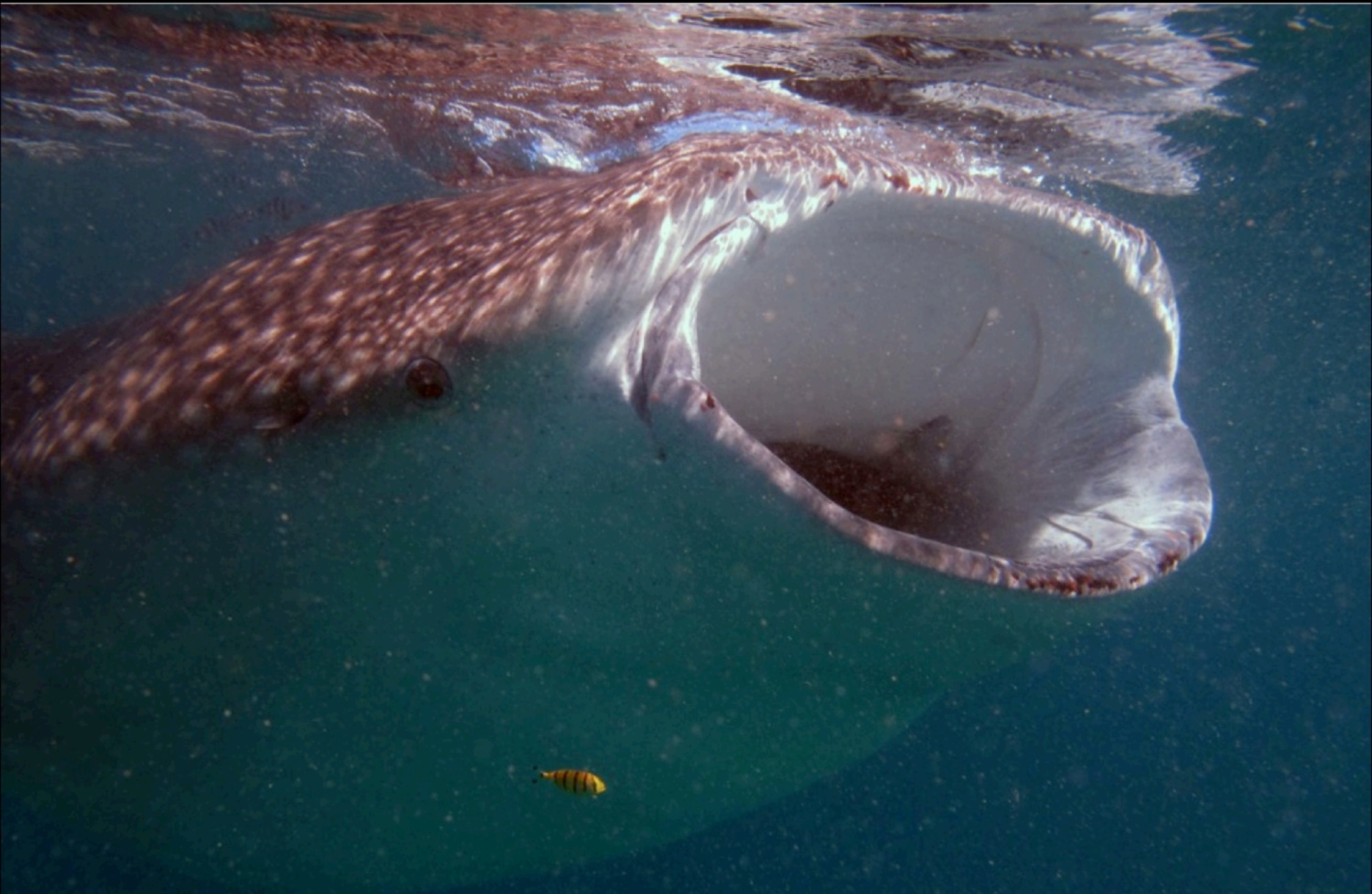
24 – 30 Nov



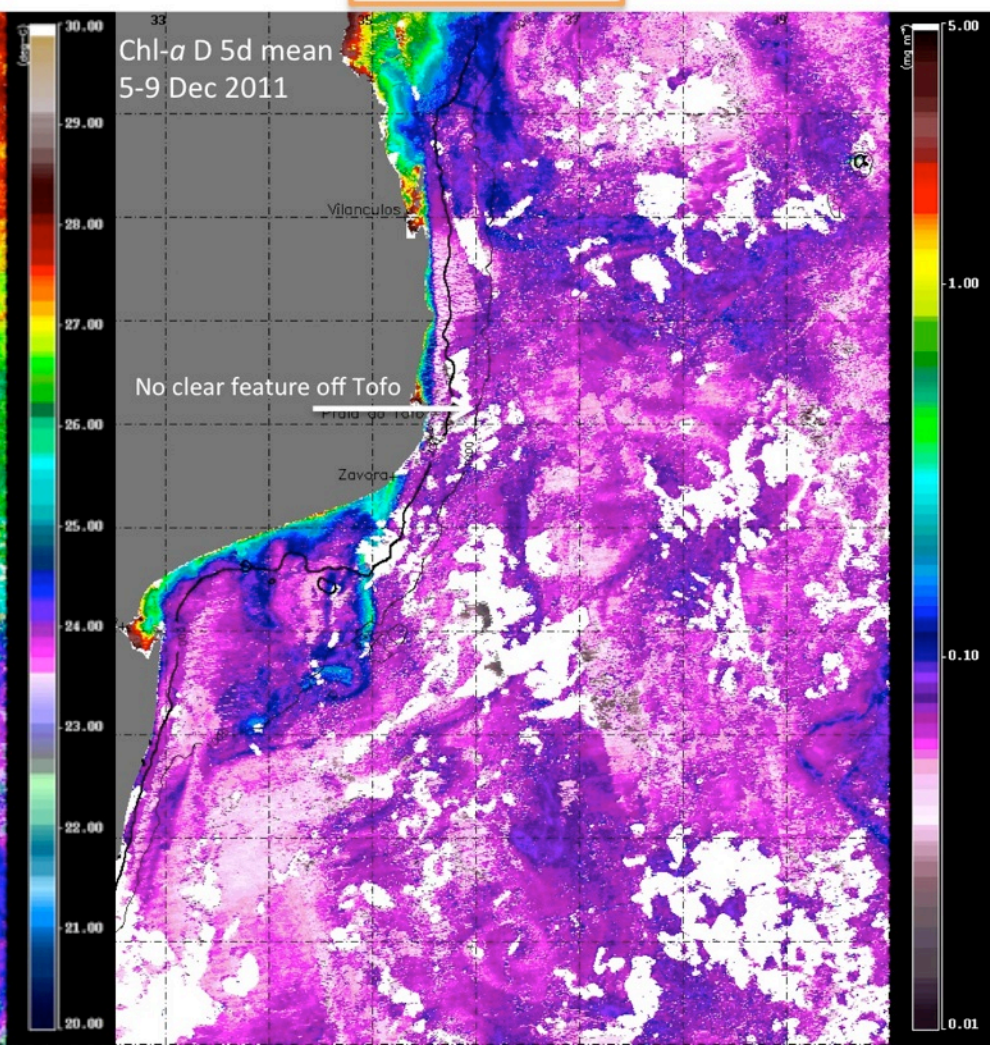
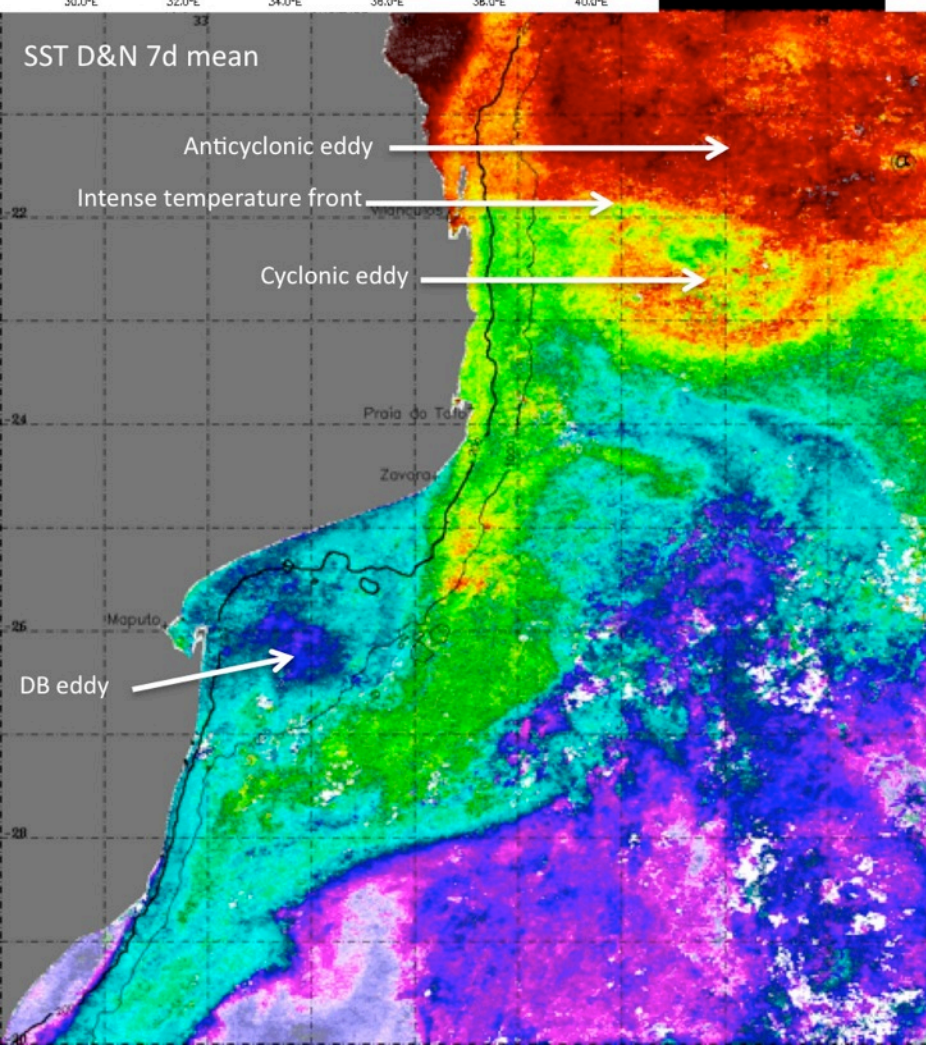
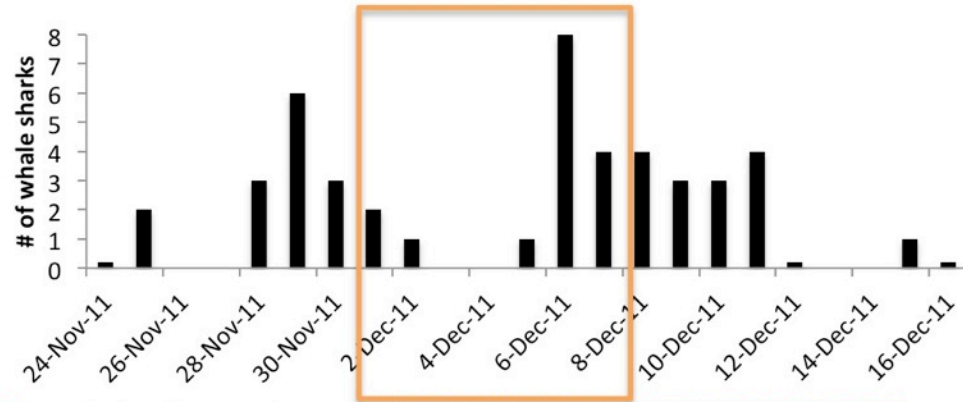
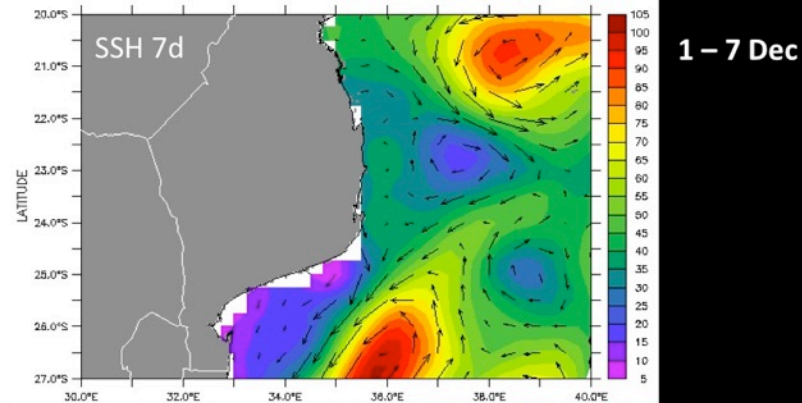


1 – 7 Dec

- 3 whale sharks seen per trip
- Lots of feeding observed
- Dense plankton patches of mainly big copepods, salpes and jellyfish → lag from dipole?







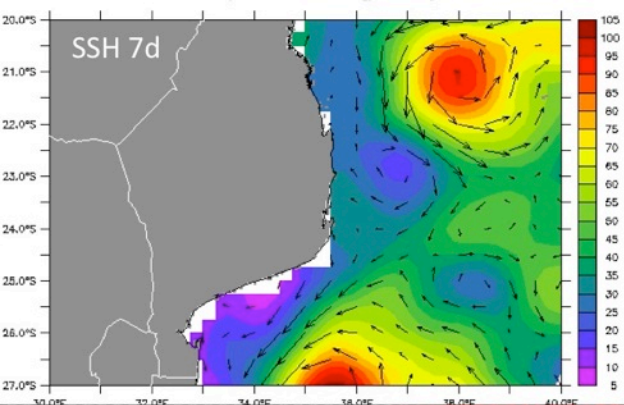


8 – 14 Dec

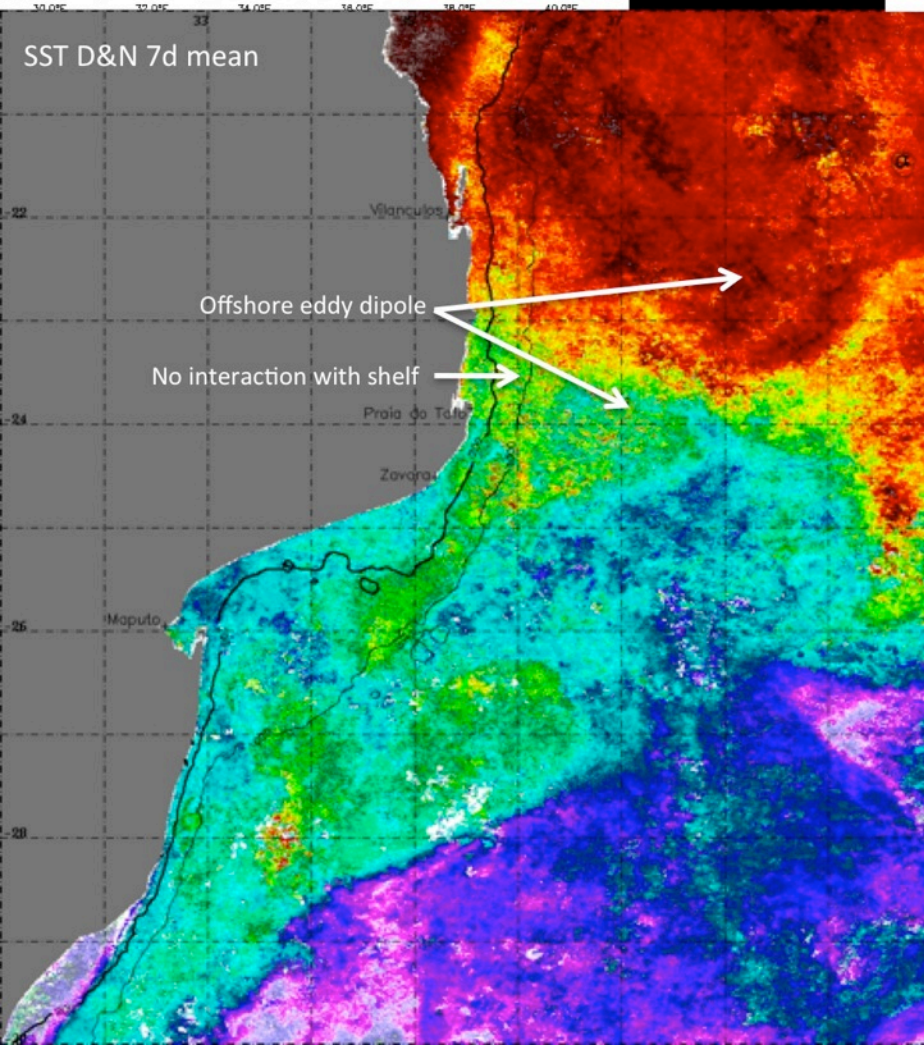
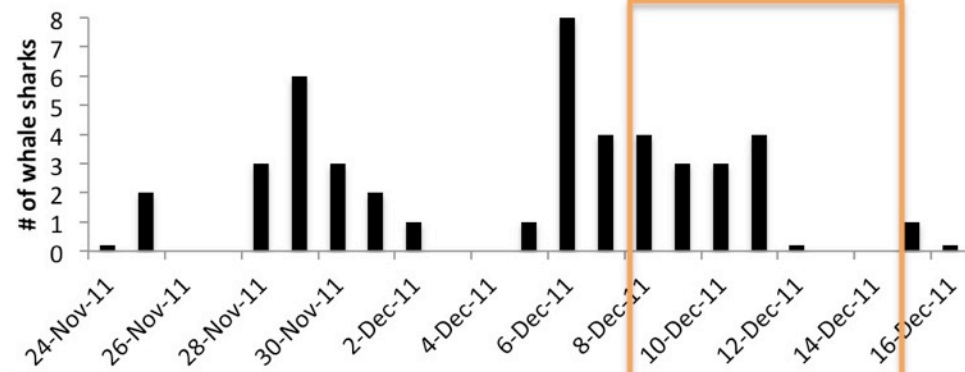
- 3 whale sharks seen per trip
- Still some feeding observed, but mainly manta rays were feeding at the surface
- Unusually stable conditions at Tofo
- No feature for whale sharks to move offshore with?



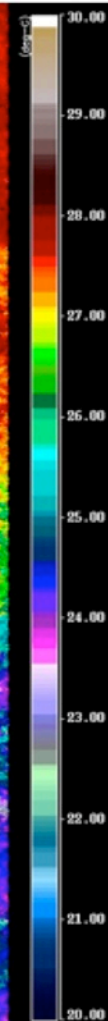




8 – 14 Dec



Chl-*a* → too cloudy





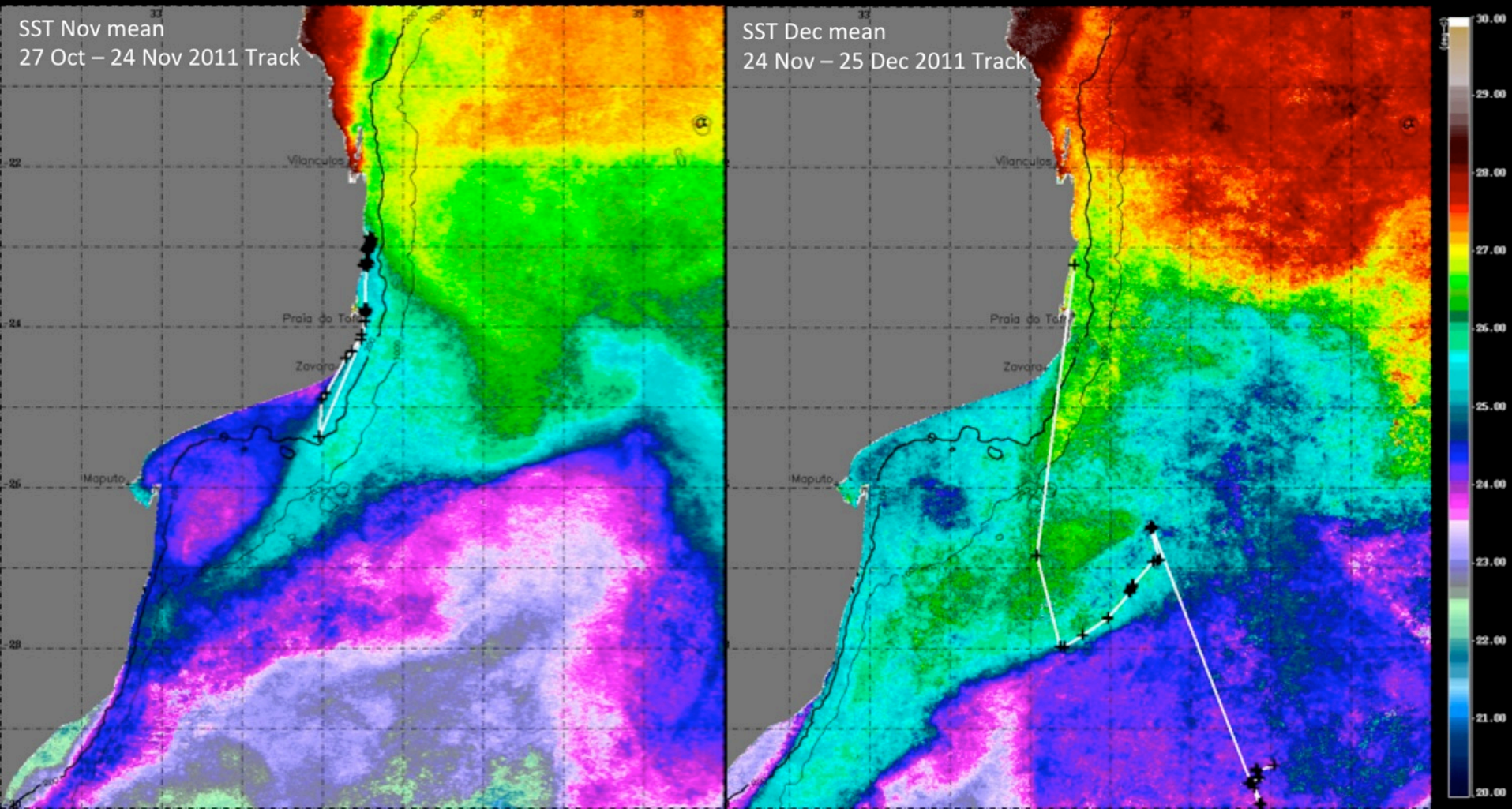
## Track overlay for 'Jenny' - Tagged in Tofo on 27 Oct 2011

### First 4 weeks:

- Moved southward to the shelf edge south of Zavora
- Then back north past Tofo to Zambia Reef, where she spent ~2 weeks
- Movement on the shelf only, usually in <30 m water depth

### Second 4 weeks:

- Fast southward movement with no surfacing until 27 °S
- In the open ocean since then, in water >2000 m
- Further track overlays with shorter means will help identify features that may impact whale shark movements





# Track overlay for 'P:Daddy' - Tagged in Tofo on 28 Nov 2011

## First 4 weeks:

- Moved southward along the coast
- Then far swim to 27 °S with no surfacing in between
- Movement along the edge of an anticyclone and the front between an eddy dipole
- ➔ Shorter means of SST and Chl-*a* will improve our understanding of whale shark movement

