

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

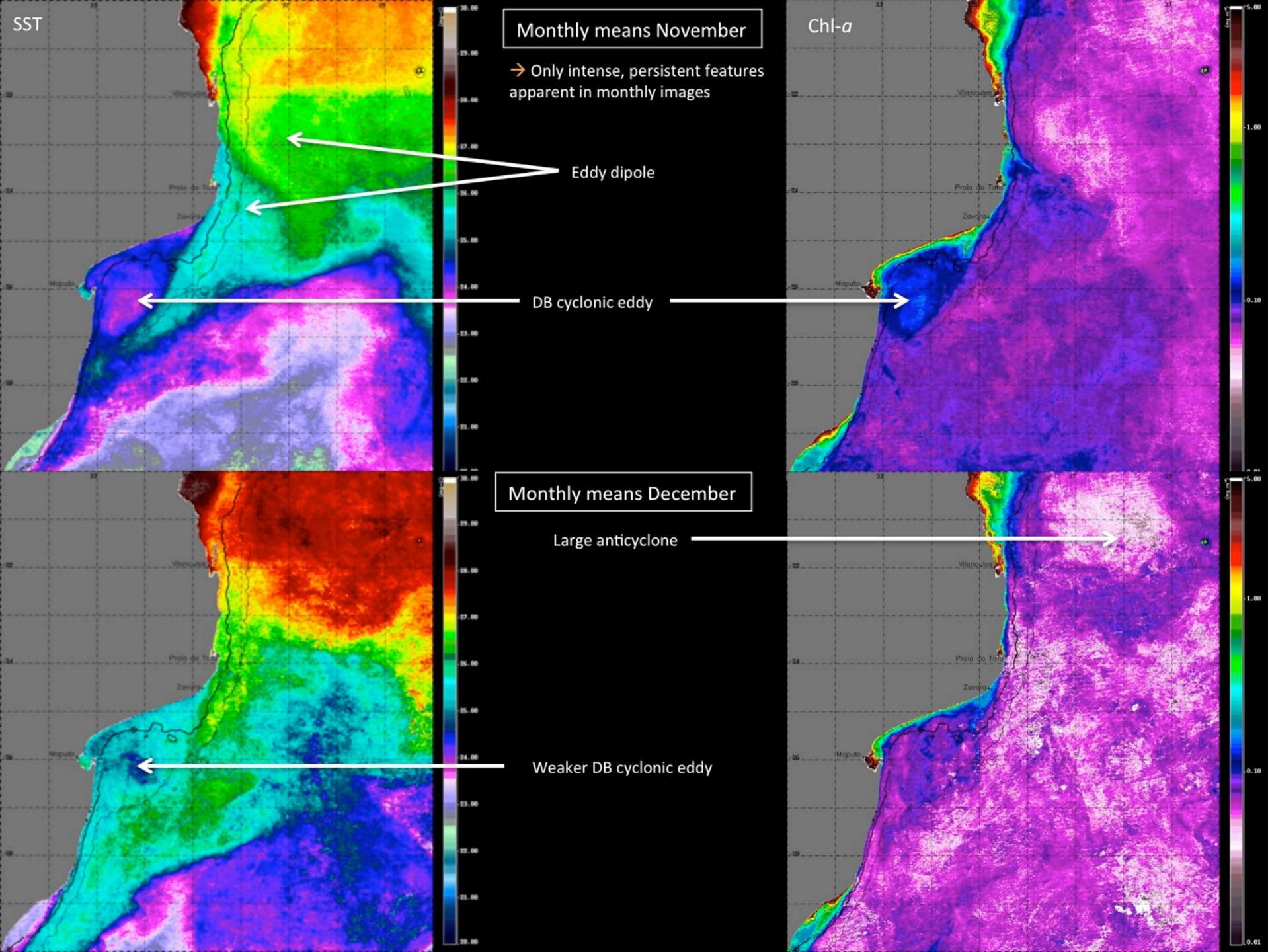


UQ's Biophysical Oceanography Group:

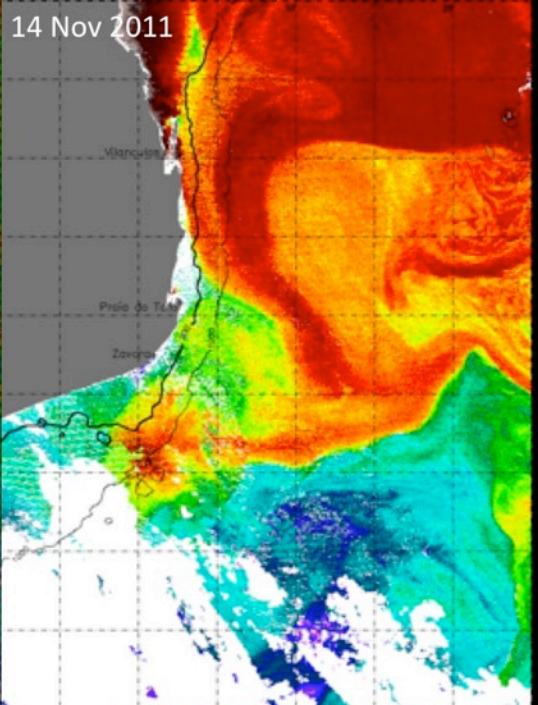
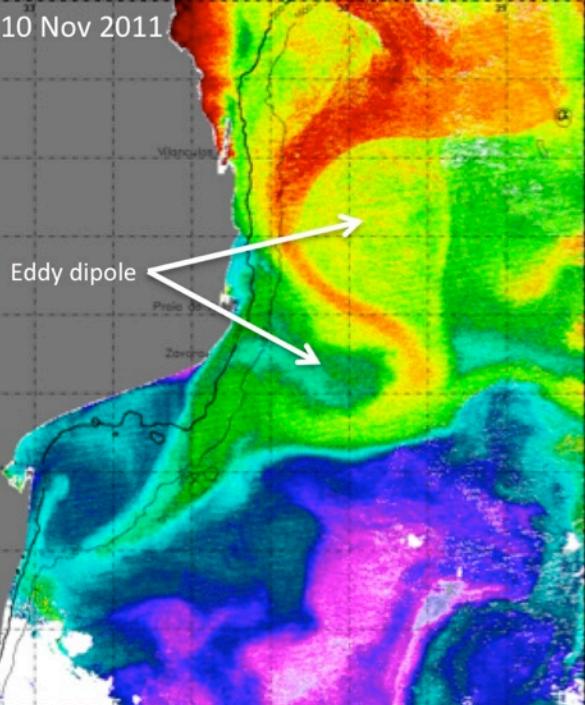
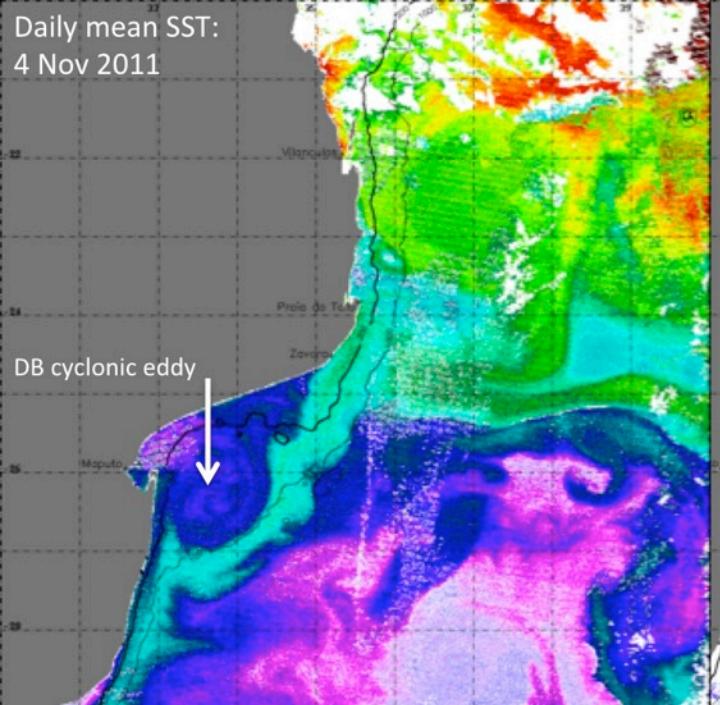
Chris Rohner

Marites Canto

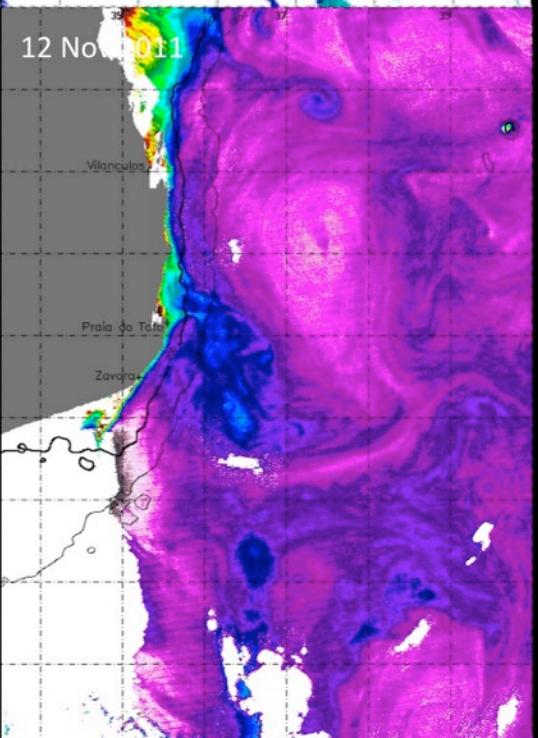
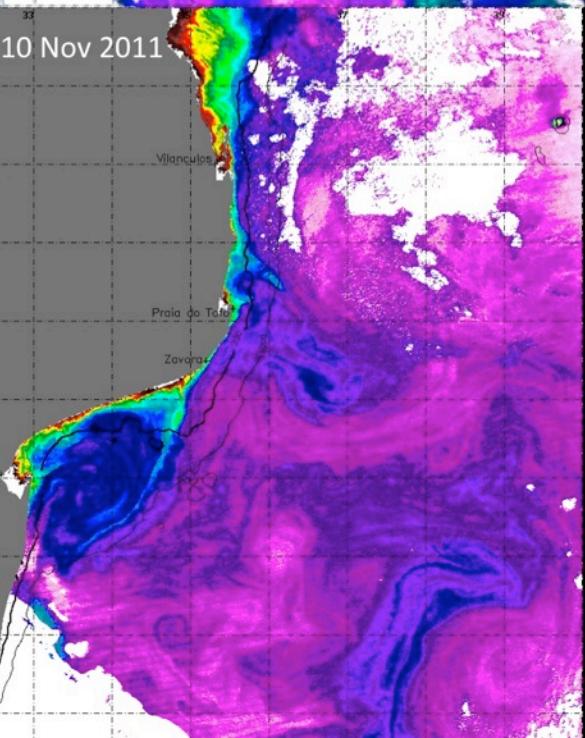
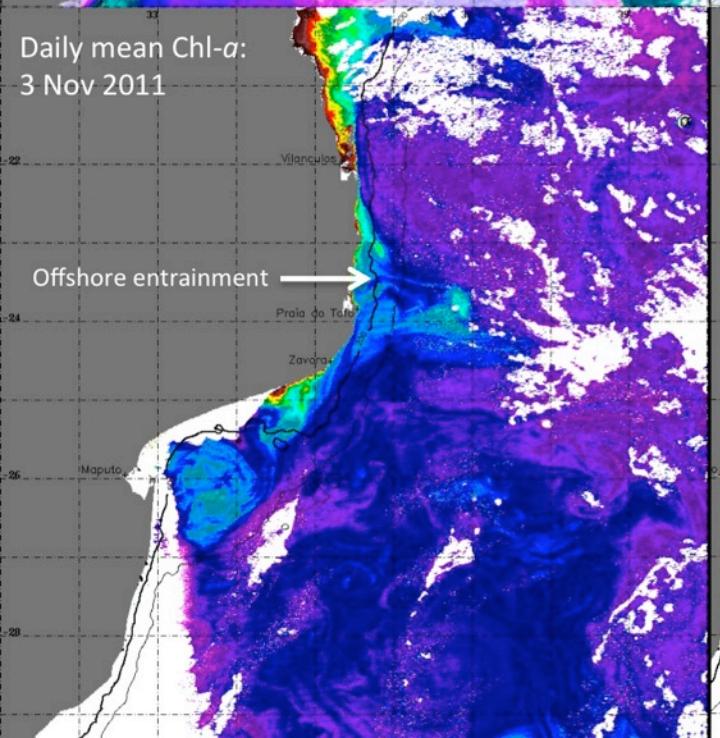
Scarla Weeks



Daily mean SST:
4 Nov 2011



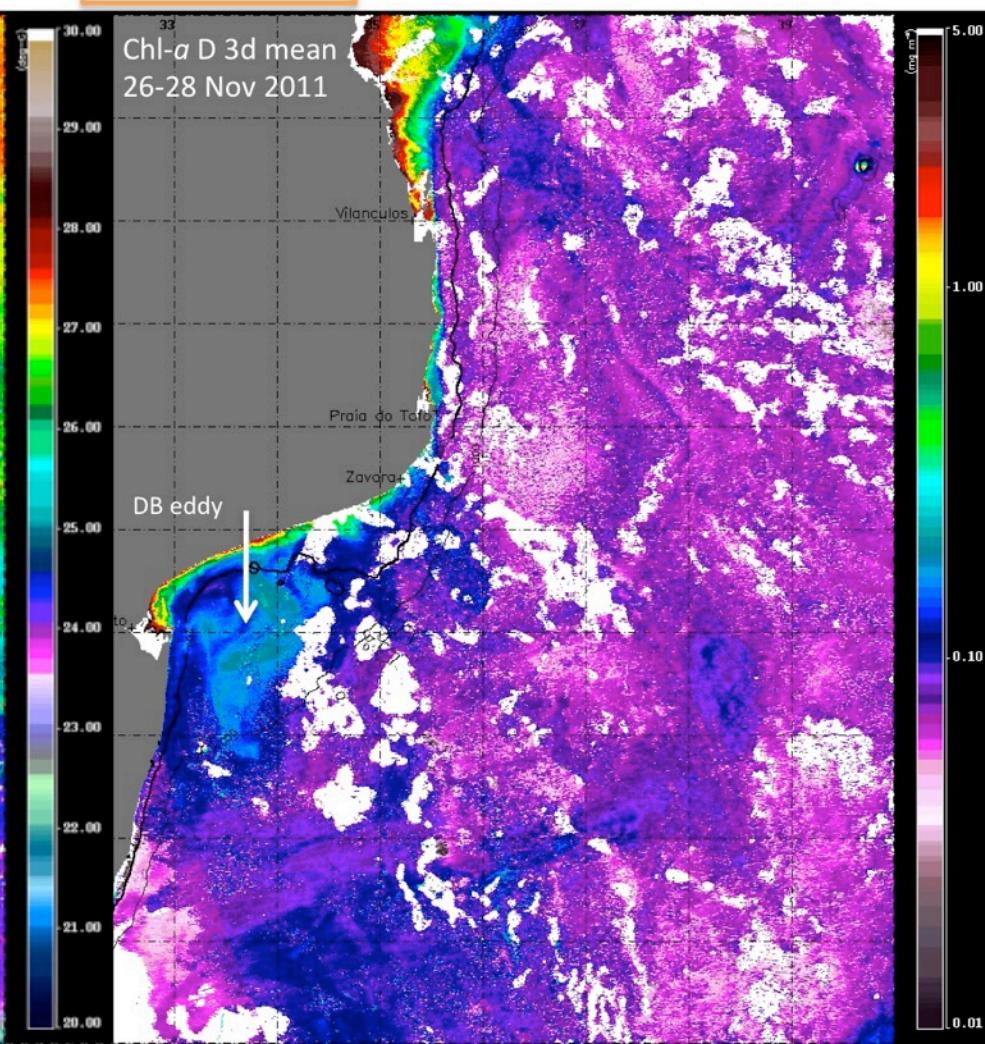
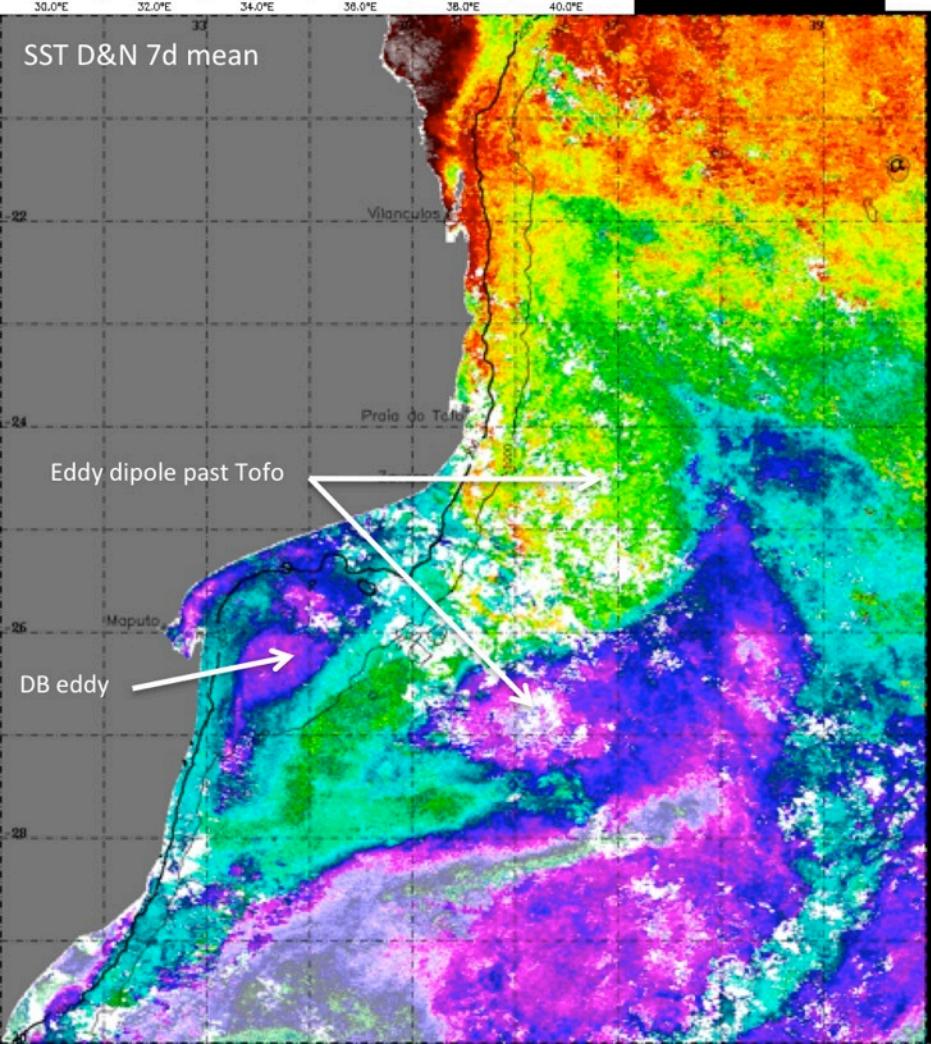
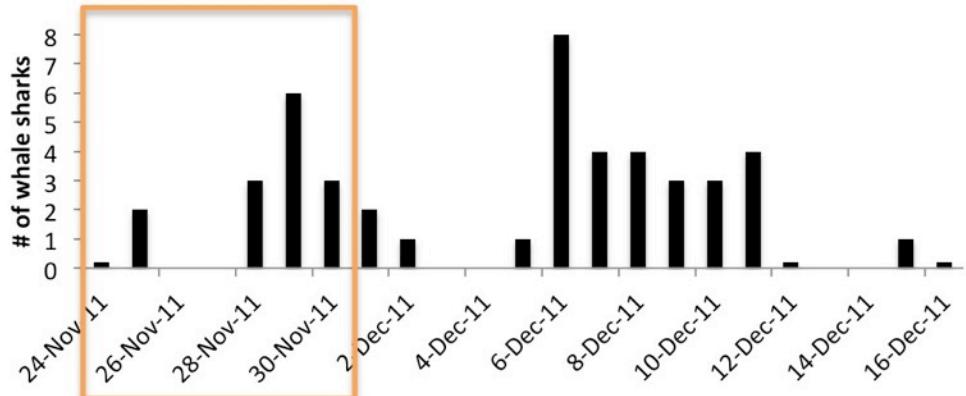
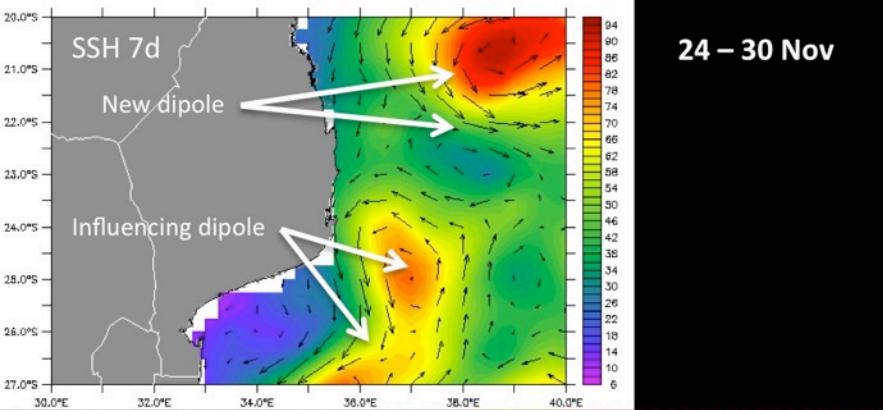
Daily mean Chl- α :
3 Nov 2011



24 – 30 Nov

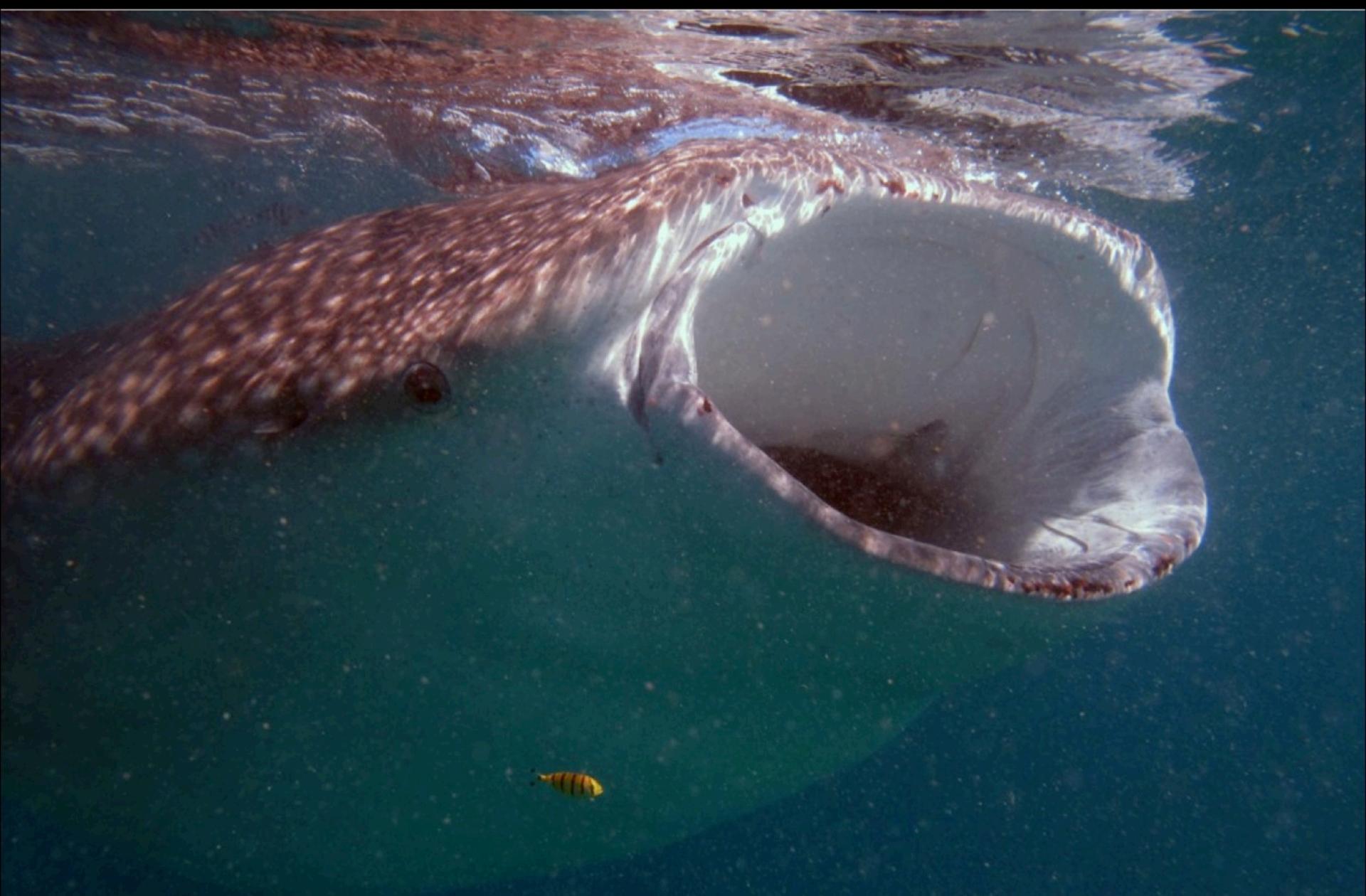
- 2.8 whale sharks seen per trip
- No feeding
- Large aggregation reported from north Tofo Bay
- Coincides with frontal boundary of the anticyclone in the passing eddy dipole

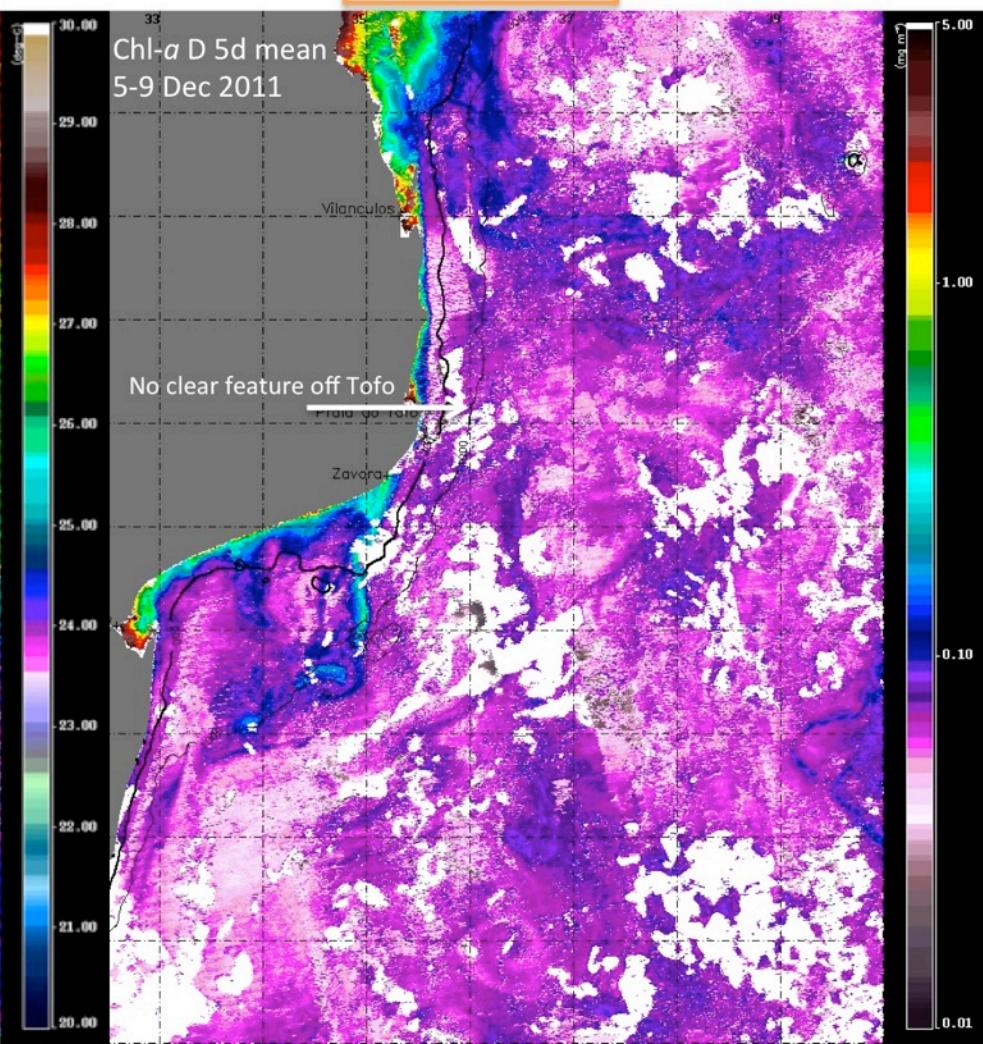
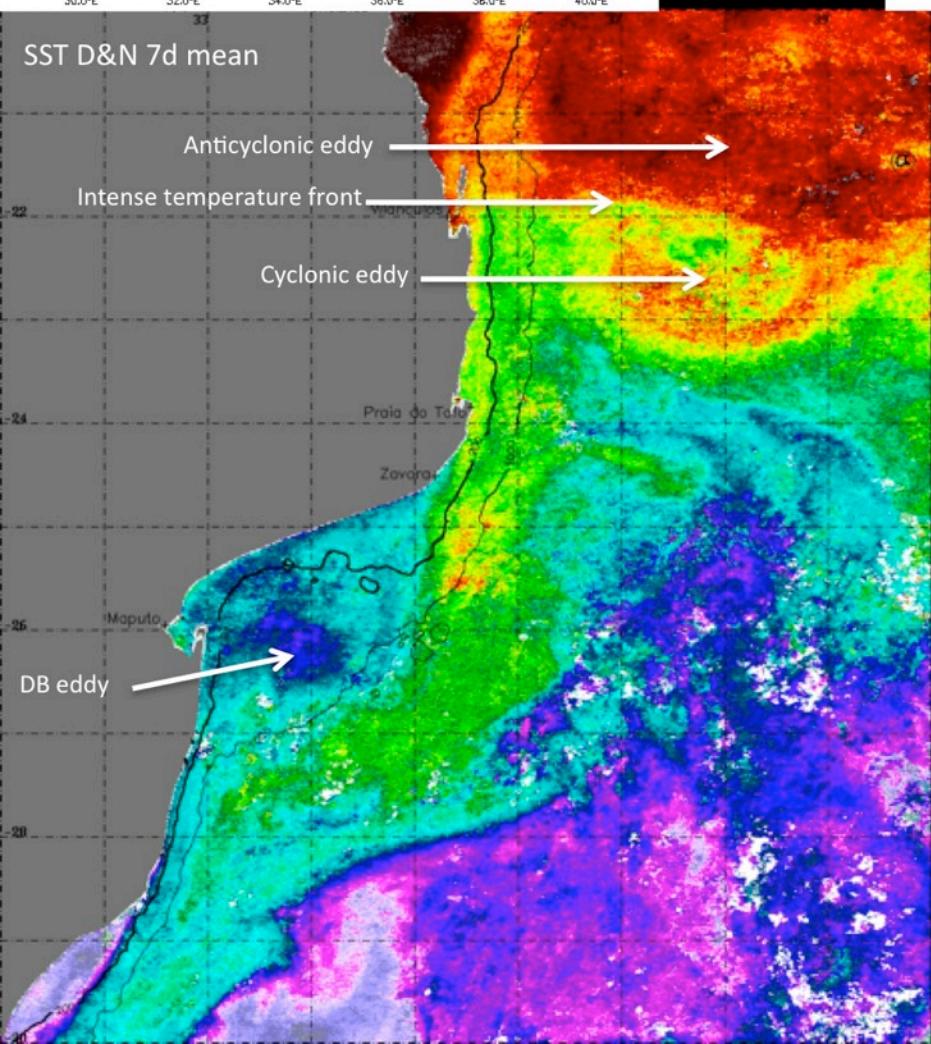
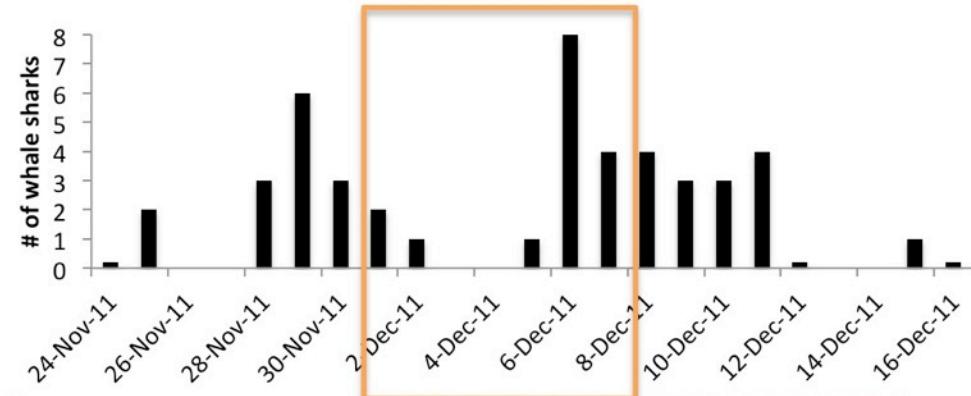
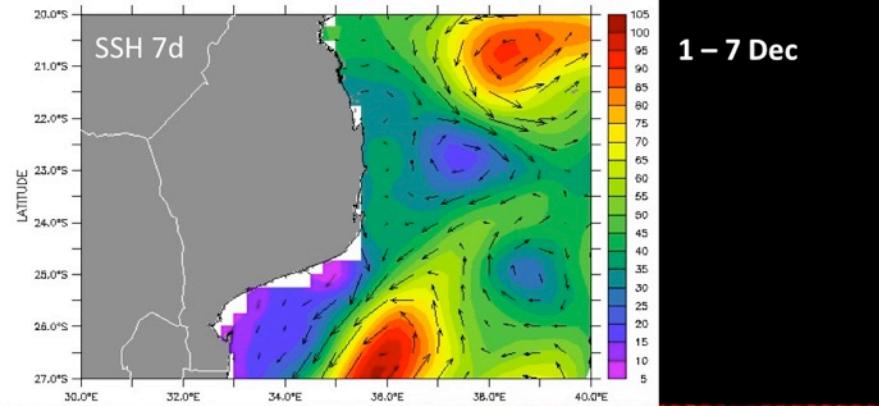




1 – 7 Dec

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

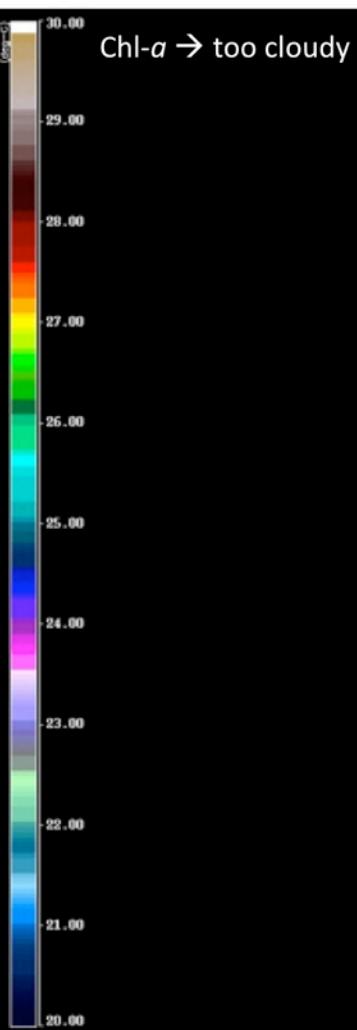
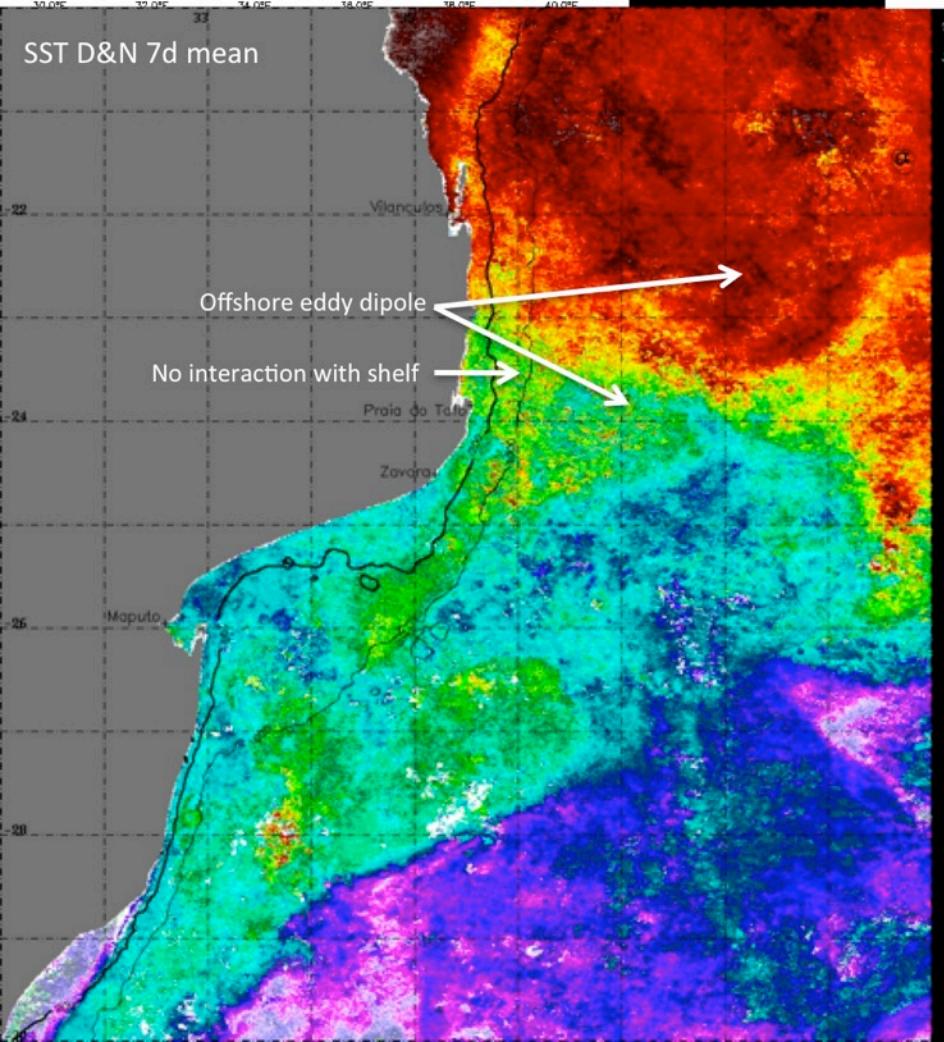
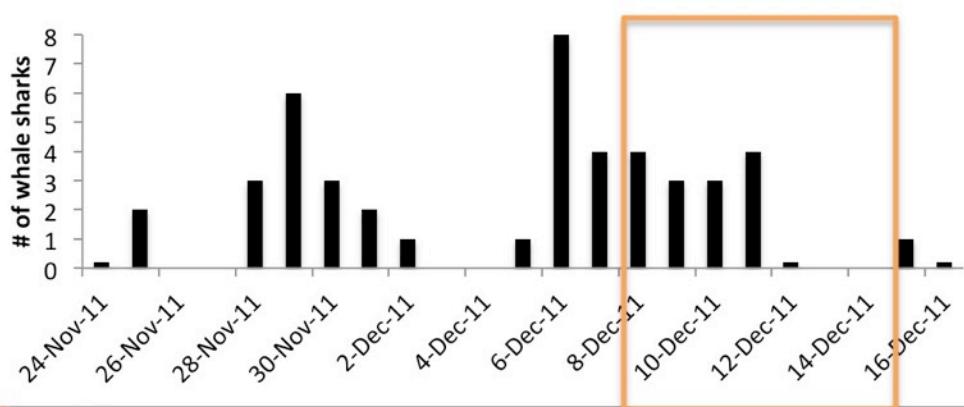
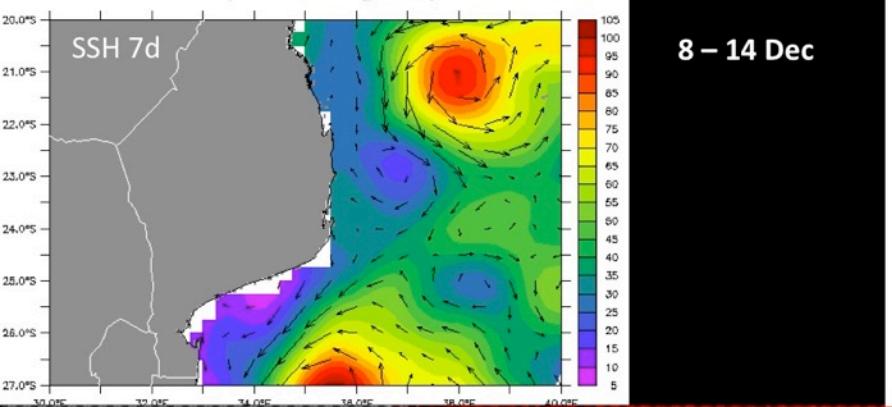




8 – 14 Dec

- 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?





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

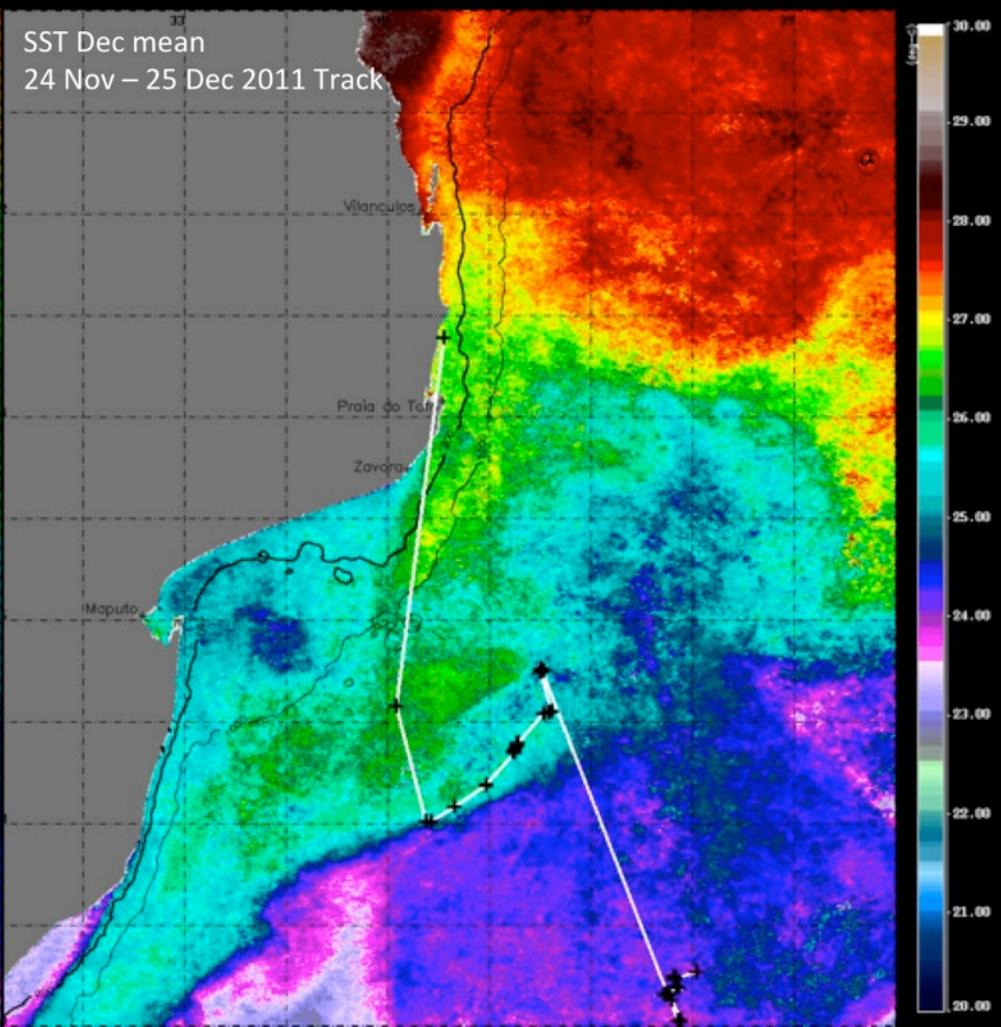
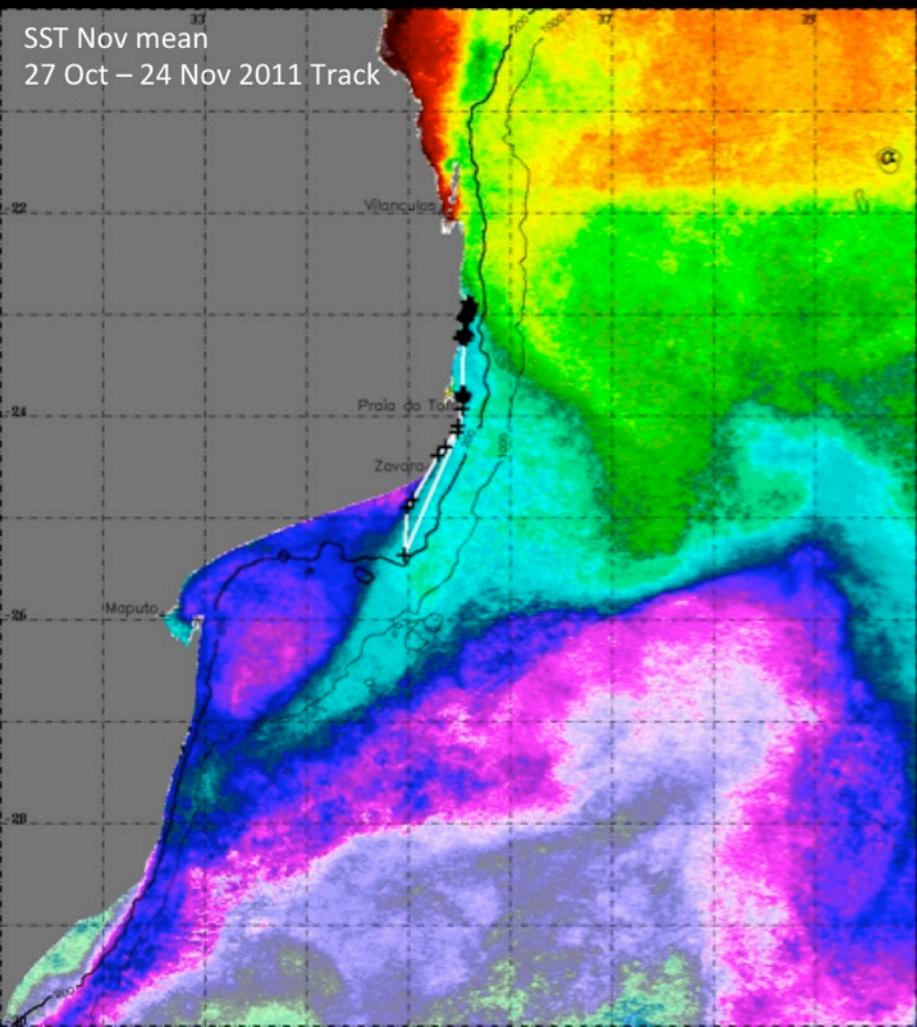
First 4 weeks:

- 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- α will improve our understanding of whale shark movement

