East Australian Current Region
Oceanographic conditions report

August 2013

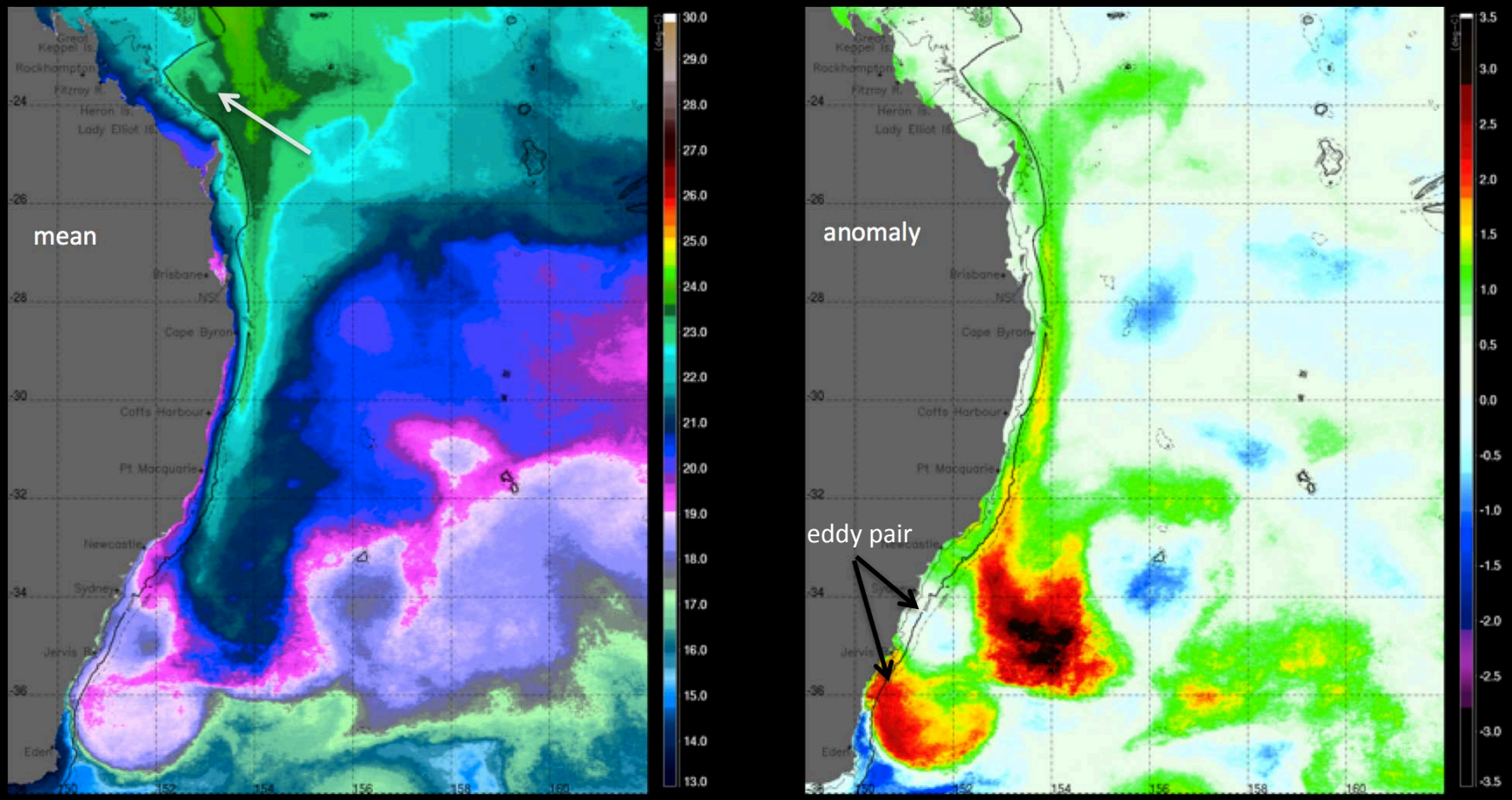
Marites Magno-Canto, Ana Redondo-Rodriguez
and Scarla Weeks

UQ-GPEM Biophysical Oceanography Group

Overview: August 2013

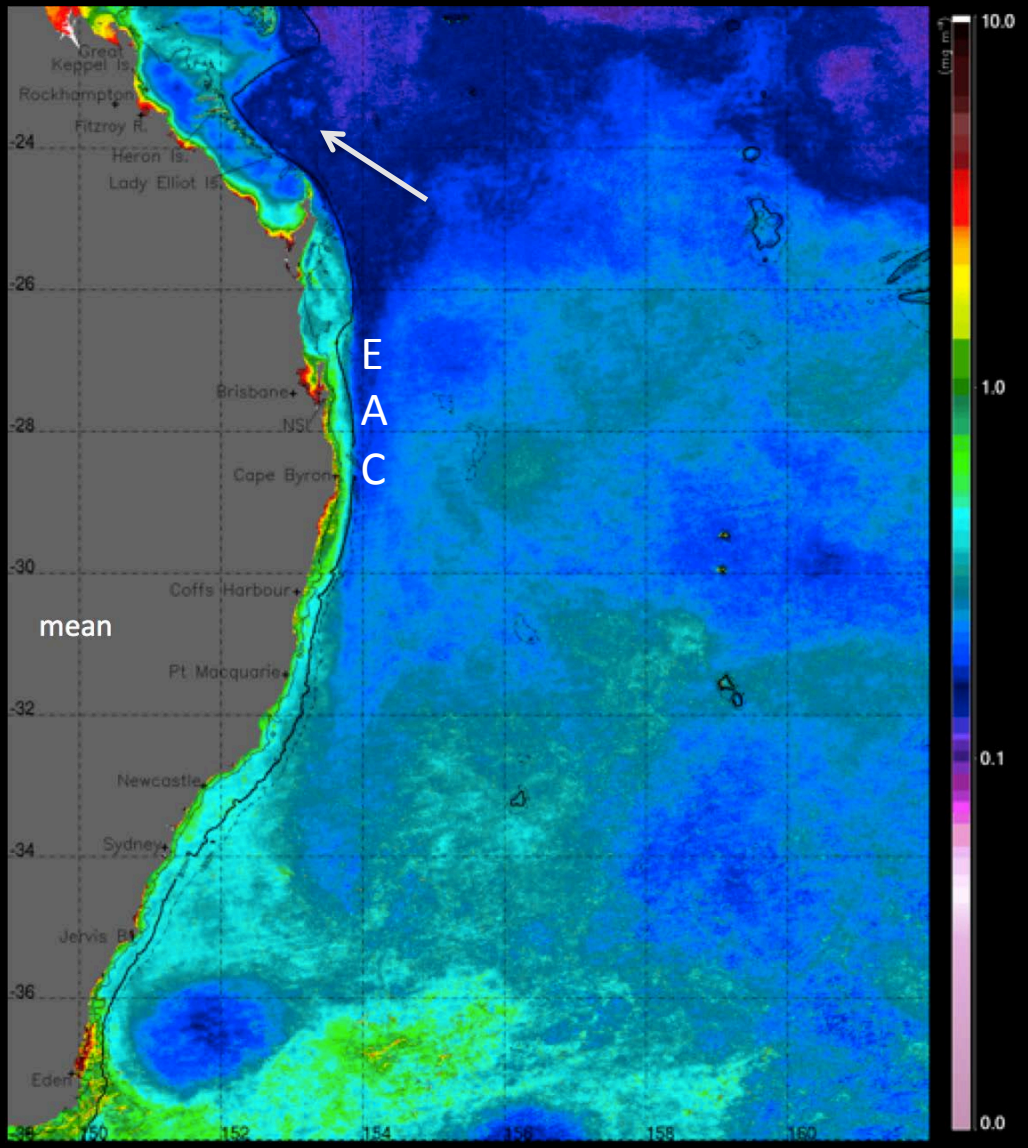
- Monthly MODIS sea surface temperature (SST) means & anomalies showing an intensified East Australian Current (EAC) and strong eddy activity in the region
- Monthly MODIS chlorophyll concentration highlighting enhanced primary production, particularly in the Tasman Sea
- Weekly MODIS SST means and anomalies showing the EAC and eddy dynamics at higher temporal resolution
- Monthly mean surface oceanic currents (OceanMAPS) show maximum current (1.36 m/s) coincident with the intense positive SST anomalies

EAC monthly MODIS SST (D+N): August 2013



- Surface manifestation of the Capricorn Eddy (arrow) evident even in monthly averaged SST
- Intensified EAC associated with:
  - Strong positive SST anomalies along the continental shelf
  - Intense positive SST anomalies linked to the huge (~200km) anticyclonic eddies shed by the EAC with core temperature anomalies +3.0 degrees warmer
- Strong frontal boundary off Eden as another anticyclonic eddy moved inshore

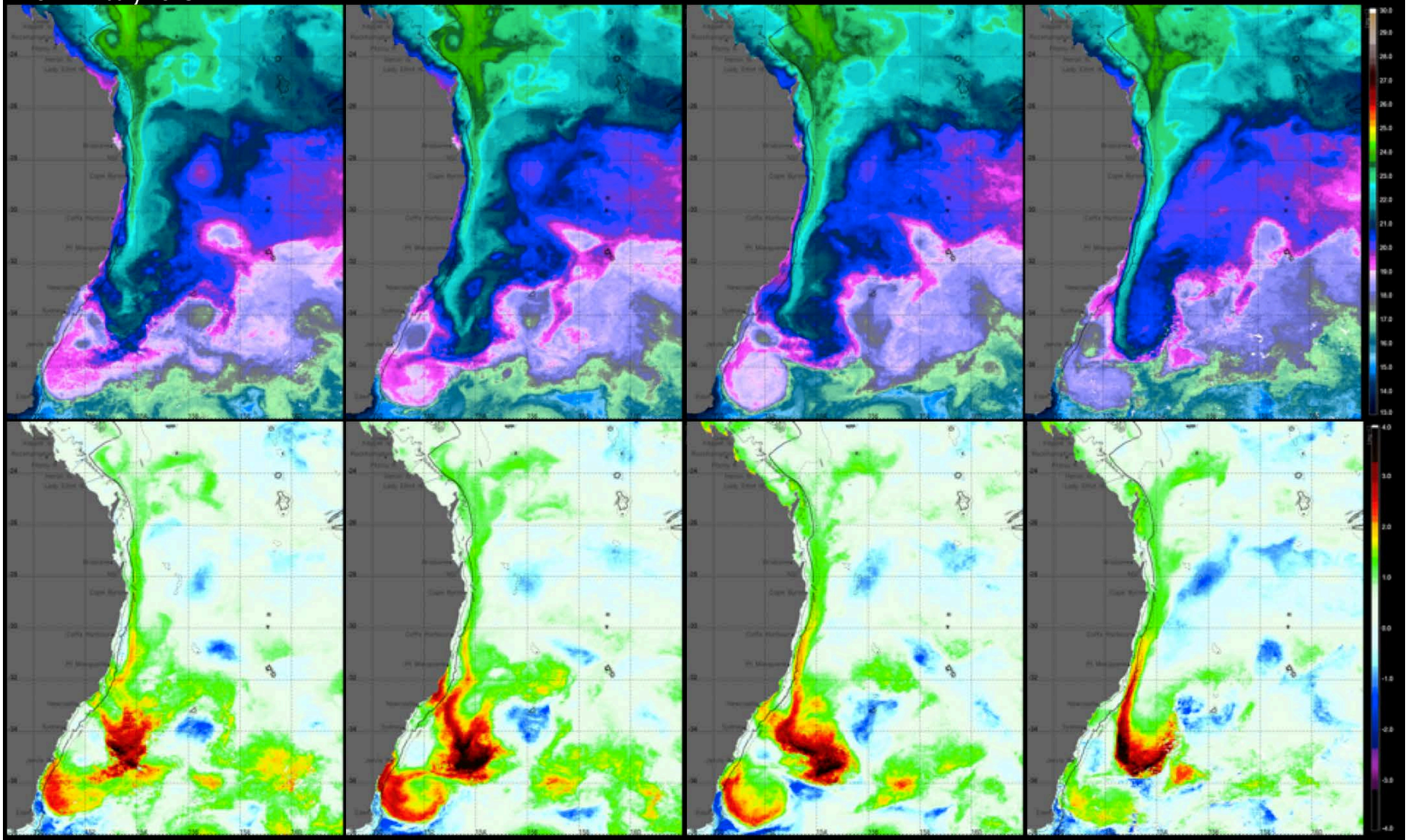
EAC monthly MODIS Chlorophyll: August 2013



- Surface manifestation of the Capricorn Eddy (arrow) also evident with low chlorophyll waters surrounding relatively higher chlorophyll waters
- EAC evident as the low-chlorophyll (bluish) waters tracking the continental shelf poleward
- High chlorophyll concentrations towards the Tasman Sea particularly around the frontal boundary between the anticyclonic eddy and the temperate waters in the region

Weekly MODIS SST means (top panel) and anomalies (bottom panel)

From 1-7 July 2013



- Mature Capricorn Eddy persisting during the first half of the month associated with moderate positive SST anomalies
- Intensified EAC encroaching onto the shelf linked with strong positive SST anomalies
- EAC southern limb more defined towards the 4th week, consistently characterised by intense positive SST anomalies (+3.0°C)
- Anticyclonic eddy off Eden weakening towards the end of the month

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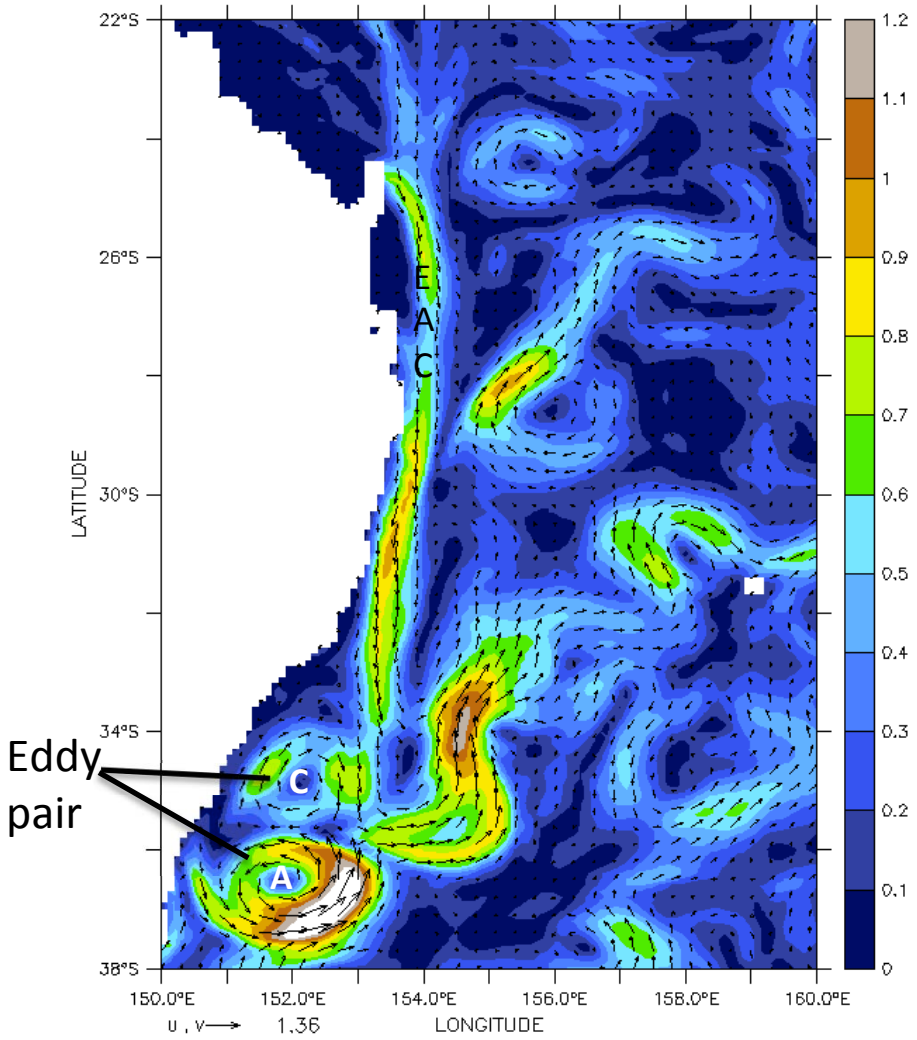
OceanMaps 15m Depth Integrated Currents

August 2013



Depth integrated (0-15m) currents from OceanMaps reveal:

- Intensified EAC relative to July closely tracking the continental shelf
- Further south, intensified southern limits of the EAC advected eastward into the Tasman Sea, associated with recirculation in the large anticyclonic eddy
- Eddy dipole pair close inshore ~34°S contributing to the complex and dynamic eddy activity in the region