

Climate and Oceanographic Summary, Great Australian Bight 2015 - 8

Kirsten Rough – 20th January 2015

Summary:

GAB Sea Surface Temperatures remain similar to last week. Latest satellite images suggest SST remain suitable for SBT anywhere west of longitude 137°E.

The upwelling systems of the South East of SA, along the southwest of Kangaroo Island and the west coast of Eyre Peninsula continue to be a prominent feature of satellite images over this last week.

GAB Sea Surface Temperature (SST):

The most recent 3-day composite satellite image of water temperatures through the central and eastern GAB area and the graph of actual temperatures along the shelf break are shown Figure 1. The GAB area remains a similar temperature to the previous week and upwelling in the South East remains a prominent feature. The upwelling showed a very large pulse of cold water in satellite images on the 11th January, this resulted in cold patches of 15-17°C water along coastal areas of lower Eyre Peninsula.

Preferred temperatures for SBT occur along the shelf break to around longitude 134°30'E but conditions are very suitable closer to Kangaroo Island to at least 138°E.

The most recent forecast, issued on the 15th January suggests the current fishing areas will remain as suitable areas of SBT habitat through February, but this area is likely to start contracting back westward through March.

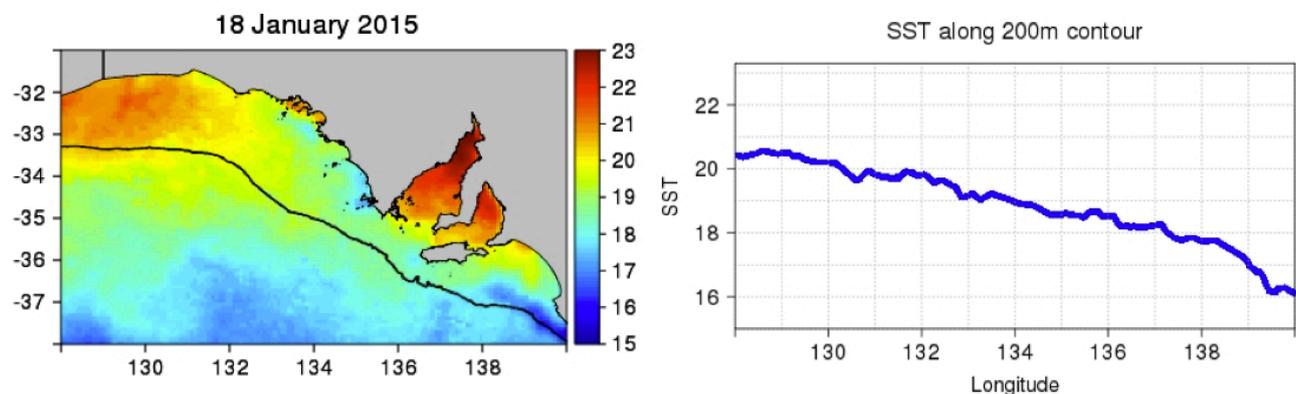


Figure 1: Sea Surface Temperatures through the GAB for the 3-day period to the 19th January 2015, satellite image left and graph of temperature along the shelf-break on right (CSIRO 2015).

Chlorophyll / Productivity:

Cloud cover has obscured most images over the past week; the 15th January had the least interference (Figure 2). Cloud has obscured the view directly below Kangaroo Island. The green area to southeast of KI shows higher chlorophyll (algae) associated with the cold water from the upwelling.

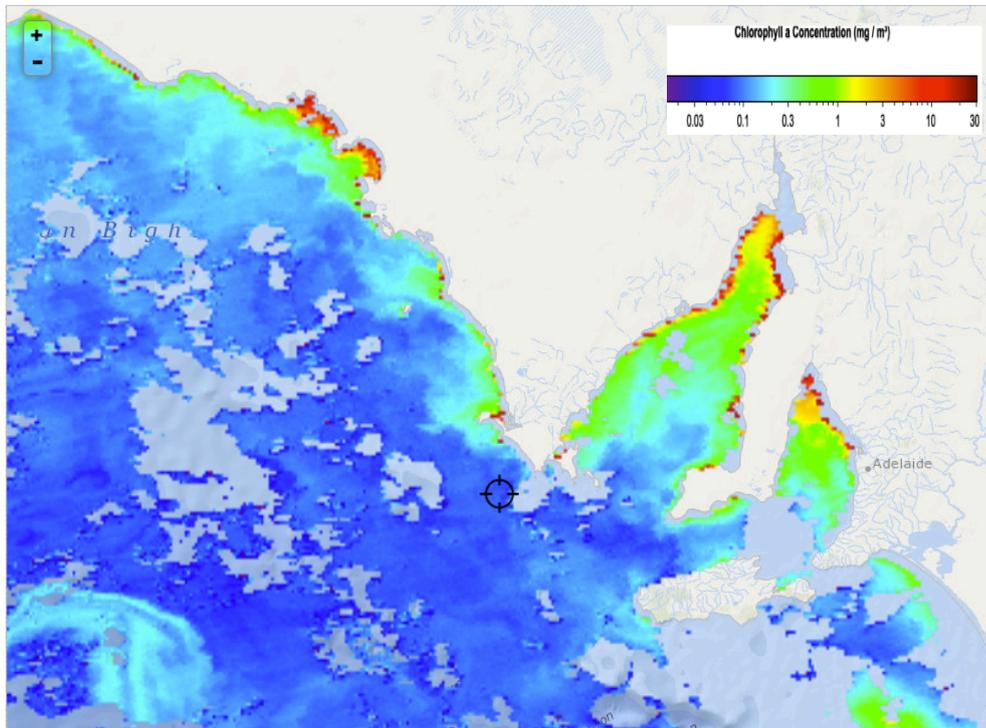


Figure 2: Chlorophyll levels through the eastern GAB area on the 15th January 2015 (FishTrack 2015).

Water Currents:

The red arrows in Figure 3 below indicate the direction of the surface current. Sea Surface Temperatures between Eyre Peninsula and Kangaroo Island are not affected by cloud.

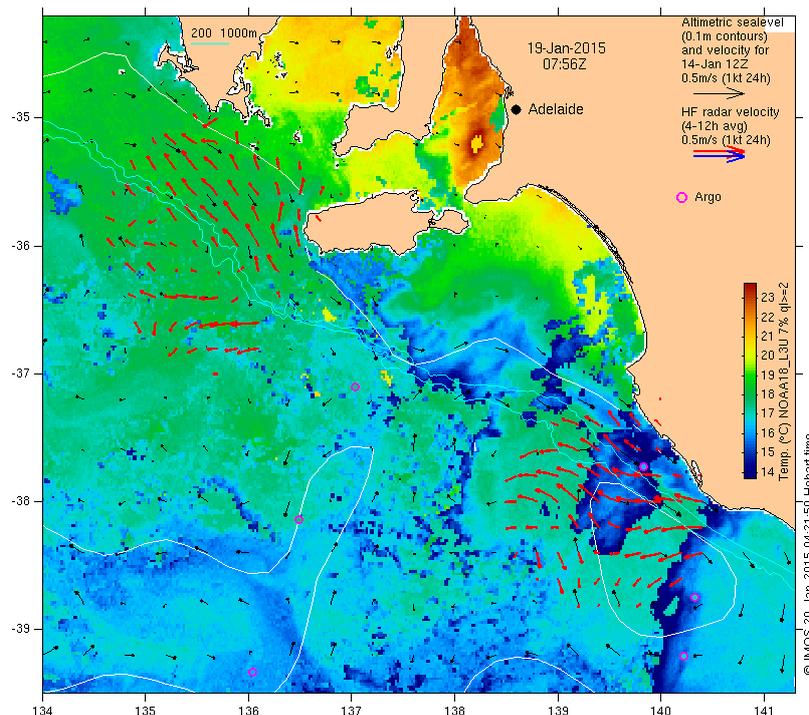


Figure 3: Direction of surface water currents measured by radar located on southern tip of Eyre Peninsula. The background colour represents sea surface temperature, but please be aware that the patchiness indicates this may be inaccurate due to cloud cover (IMOS 2015).

Seismic Surveys:

Three vessels are operating in the central and western GAB area.

PGS:

Vessel currently at 130°06' 34°00'S; operating between longitudes 129°35'E and 130°24'E

TGS-NOPEC:

1st vessel between longitudes 130°52'E and 132°43'E

2nd vessel between longitudes 131°27'E and 132°14'E

If anyone would like to have a guided tour of a seismic vessel on the 21st January, please email, phone or text on details below.

Useful Websites:

<http://www.bom.gov.au>

<http://www.csiro.au>

<http://www.fishtrack.com>

<http://www.oceancurrent.imos.org.au>

<http://www.cmar.csiro.au/gab-forecasts/index.html>

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