

Climate and Oceanographic Summary, Great Australian Bight 2016 - 6

Kirsten Rough – 7th December 2015

Please find following the latest update for recent and expected oceanic conditions for the 2016 fishing and aerial survey season. Contact details and useful websites are listed at the end.

Summary:

The sea temperatures of the GAB area continue to warm slowly. The recent burst of hot weather should speed this up.

A cool pool of water is located to the southwest of Kangaroo Island. No upwelling was visible on images along the South East of SA this week.

Productivity continues to be enhanced in the upwelling area of the South East and to a lesser extent around southern and western coastal fringe of Eyre Peninsula and Kangaroo Island.

Forecasts on SBT habitat distribution continue to suggest that the area below Eyre Peninsula is likely to be a suitable fishing area through January and into February.

GAB Sea Surface Temperature (SST):

The Sea Surface Temperature situation across the Great Australian Bight averaged for the month of November for 2015 and the previous 5-years is shown in Figure 1. And across the greater GAB area for the 3-days period around the 4th December 2015 can be seen in Figure 2.

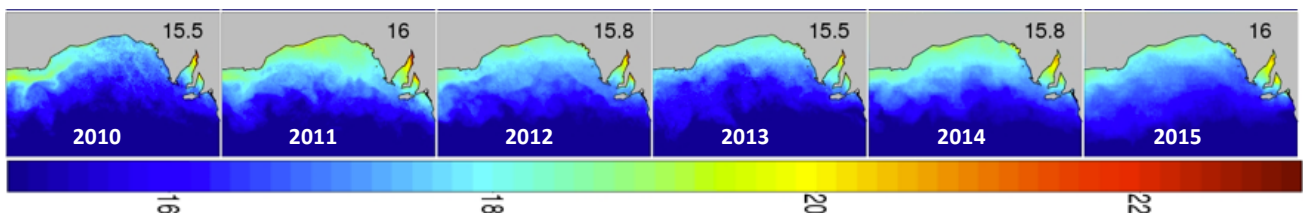


Figure 1: GAB sea surface temperatures through November for the previous 6 years; in these images aqua can contain early entry SBT, and yellow is the ideal temperature (CSIRO 2015).

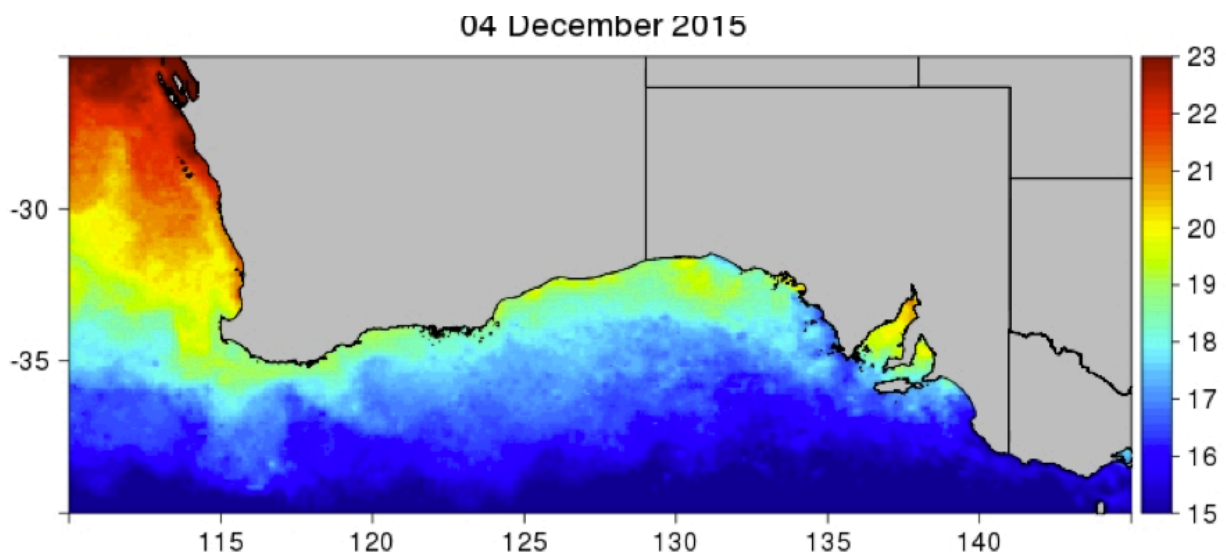


Figure 2: Sea surface temperatures across the broader area of the GAB and southwest WA for the 3-day period around the 4th December 2015 (CSIRO 2015).

The SST situation for the central to eastern GAB area for the previous 2-weeks is shown in Figure 3 (these plots show the satellite image on the left and the temperature along the shelf break in the corresponding graph on the right). Temperatures continue to warm slowly across the inshore (shelf) areas of SA. Warming of the inshore areas is now extending to the shelf break throughout the central-western historic fishing areas.

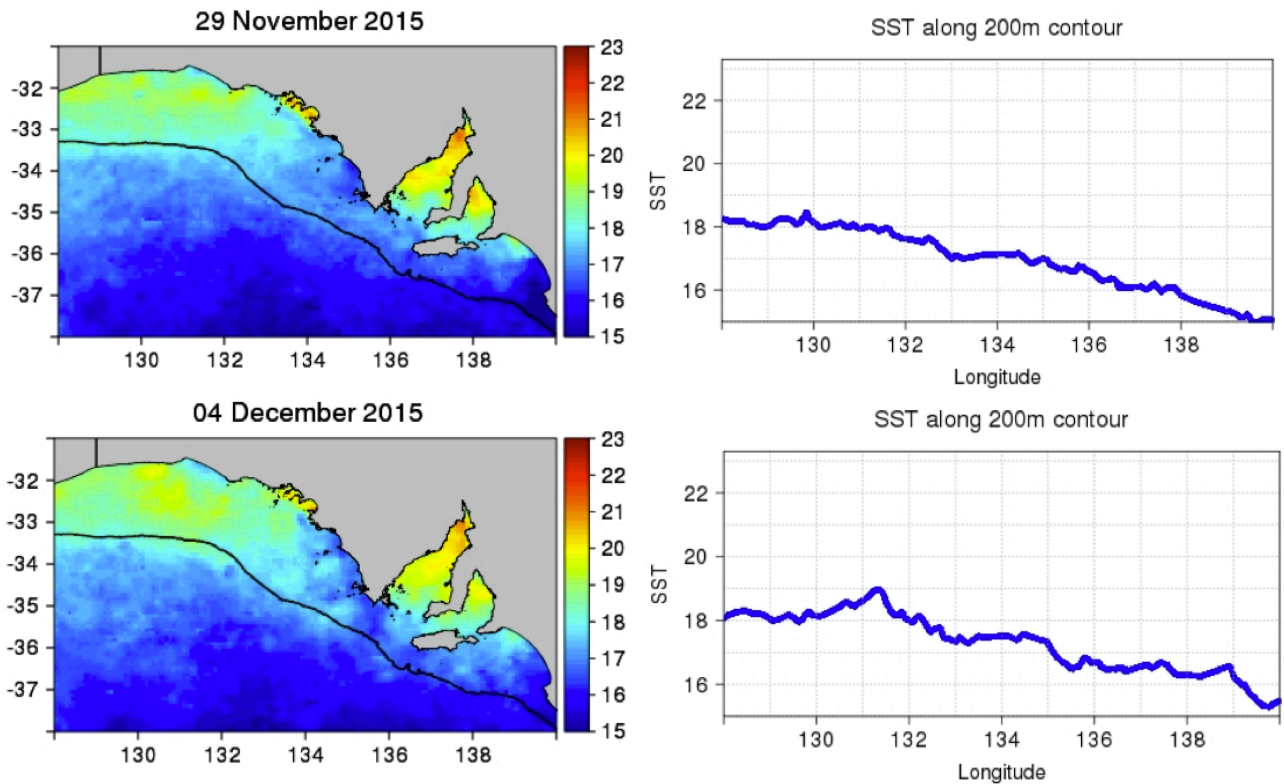


Figure 3: Snapshots of sea surface temperatures across the Eastern GAB over the past 2 weeks (CSIRO 2015).

How the situation compares to a similar point in time last season can be seen in Figure 4; where the top image is sea temperature on left and preferred habitat on the right, from the first week of December 2014. The lower image is sea temperature and preferred habitat over the last week (December 2015).

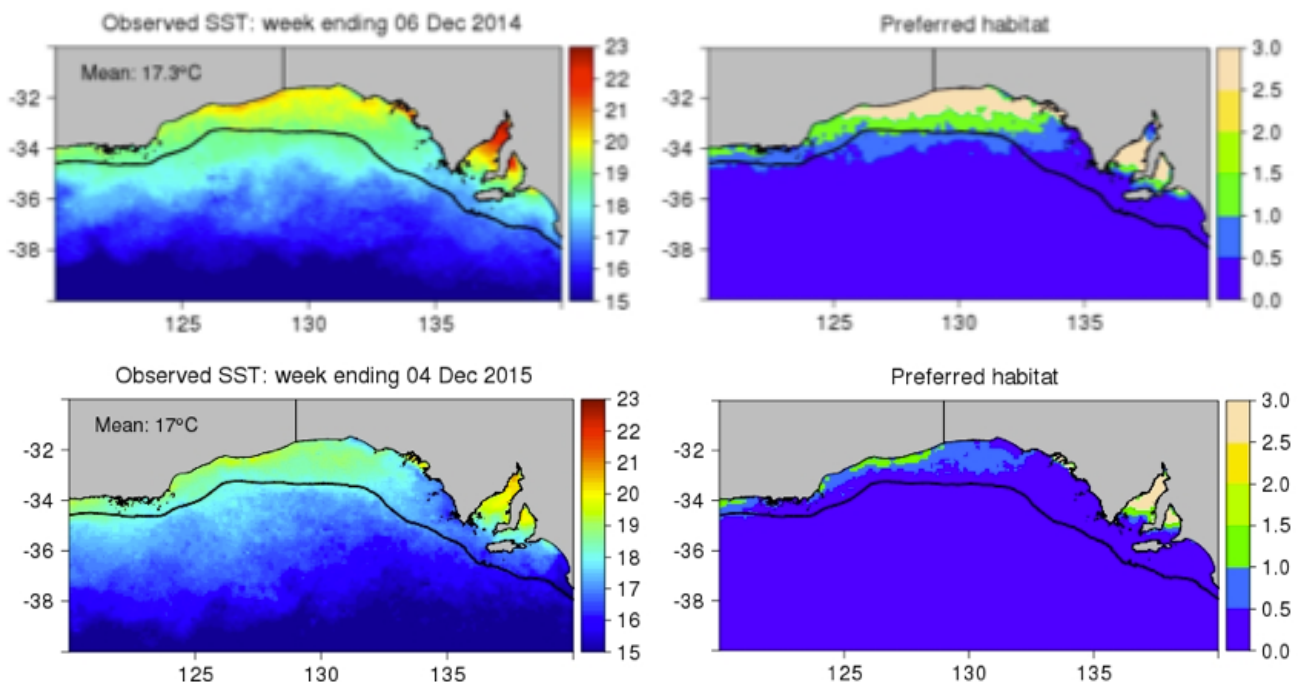


Figure 4: Comparison this point in time coming into the last season (6th December 2014 top images) and the situation now (4th December 2015, bottom images) (CSIRO 2014 and 2015).

Forecast SST and SBT Habitat:

Medium and longer-term forecasts of conditions in the GAB are shown in Figure 5. In the habitat forecast images (on the right) the areas at or above 1 (green to skin colour) are more preferred habitat for SBT. The longer-term forecasts continue to moderate as the season approaches. The forecasts for January are now looking similar to those issued around the same time for January last season. January and February look suitable for catching SBT close to Port Lincoln.

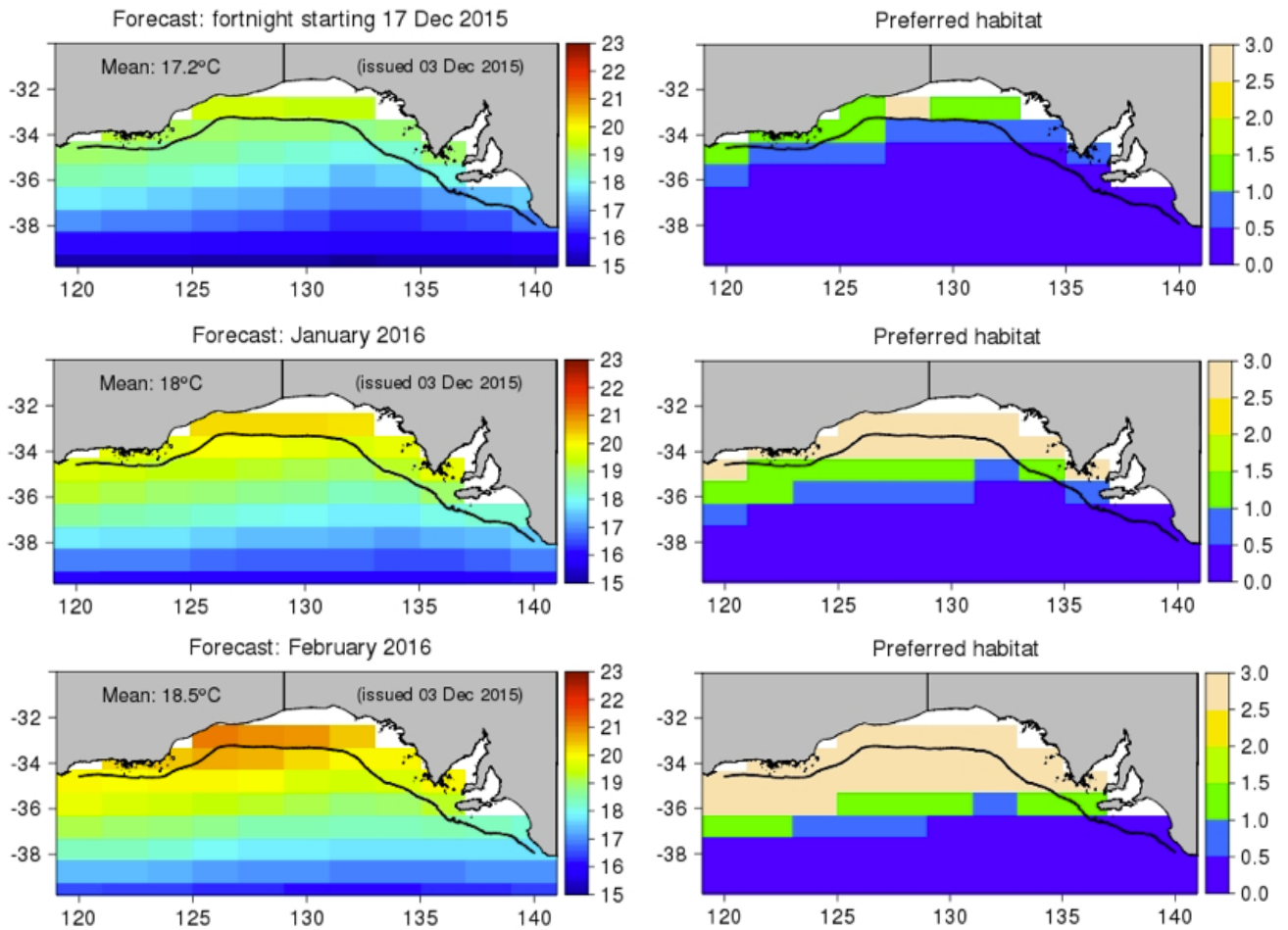


Figure 5: SBT habitat forecasts issued on the 3rd December for likely conditions through the second half of December, January and February (CSIRO 2015).

Chlorophyll / Productivity:

To cover historic and recent fishing areas 2 satellite images taken on the 3rd December 2015, are shown in **Figure 6**. Higher chlorophyll (algae) levels continue in the upwelling area of the South East of South Australia.

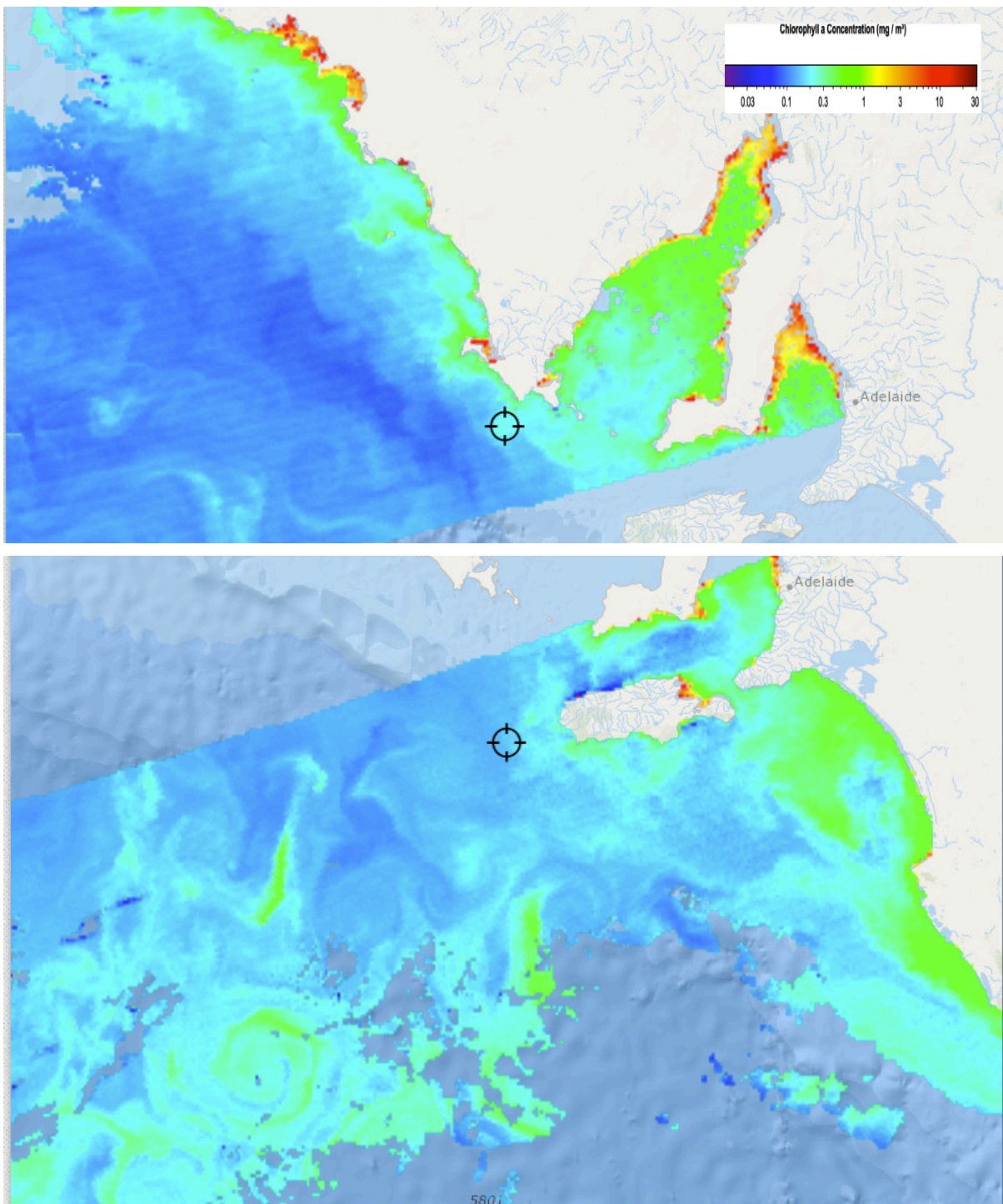


Figure 6: Processed satellite images of chlorophyll taken on the 3rd December 2015 (FishTrack 2015).

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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