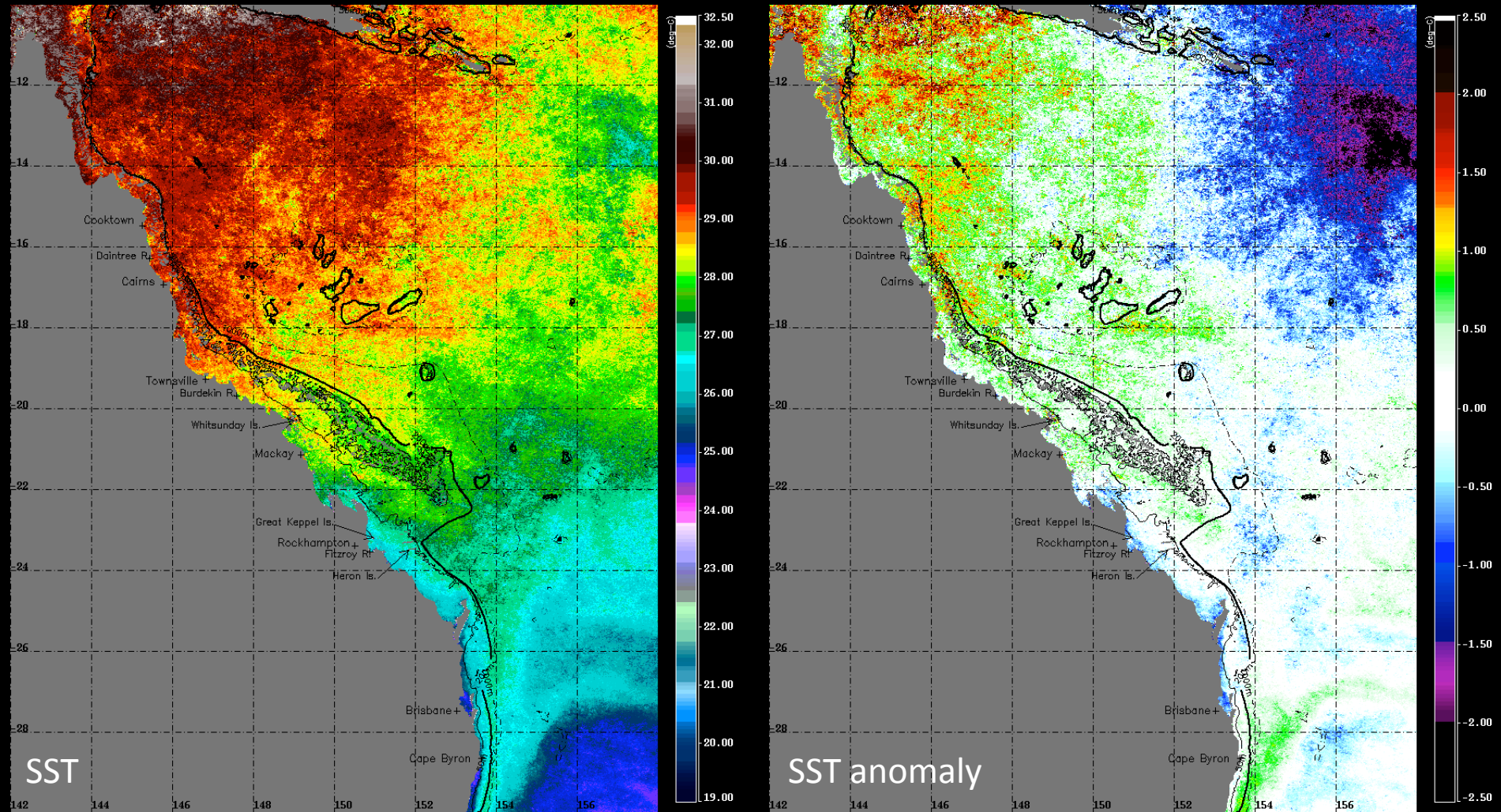


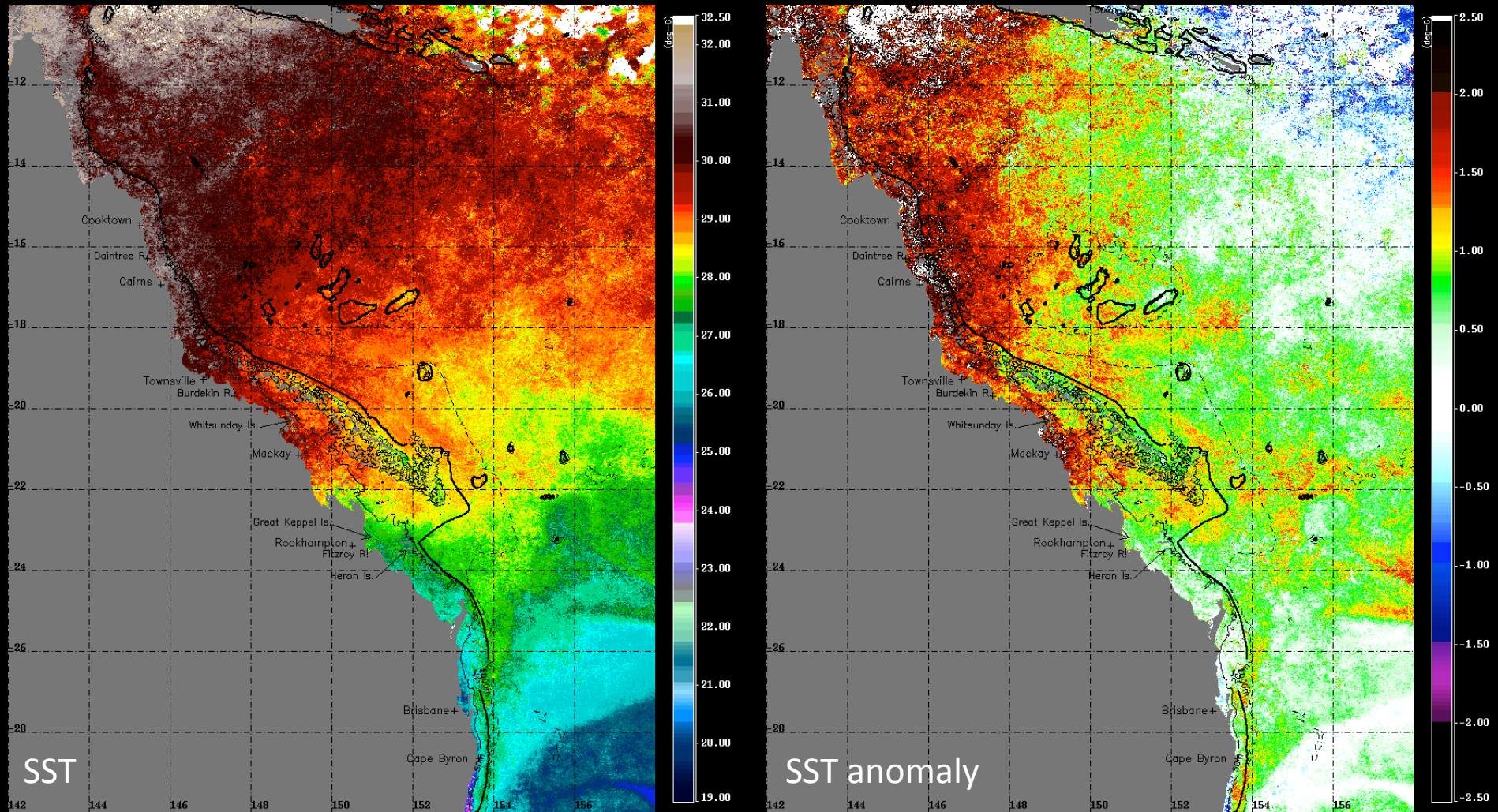
Modis SST (day+night): March 2010



Note: (considerable cloud cover was experienced during the month of March)

- The negative anomalies in the N-GBR have changed towards positive anomalies. In contrast, the positive anomalies presented on the Capricorn Bunker group have dissipated towards close-to average conditions.
- Strong negative SST anomalies over the Coral Sea

Modis SST (day+night): 1-15 March 2010

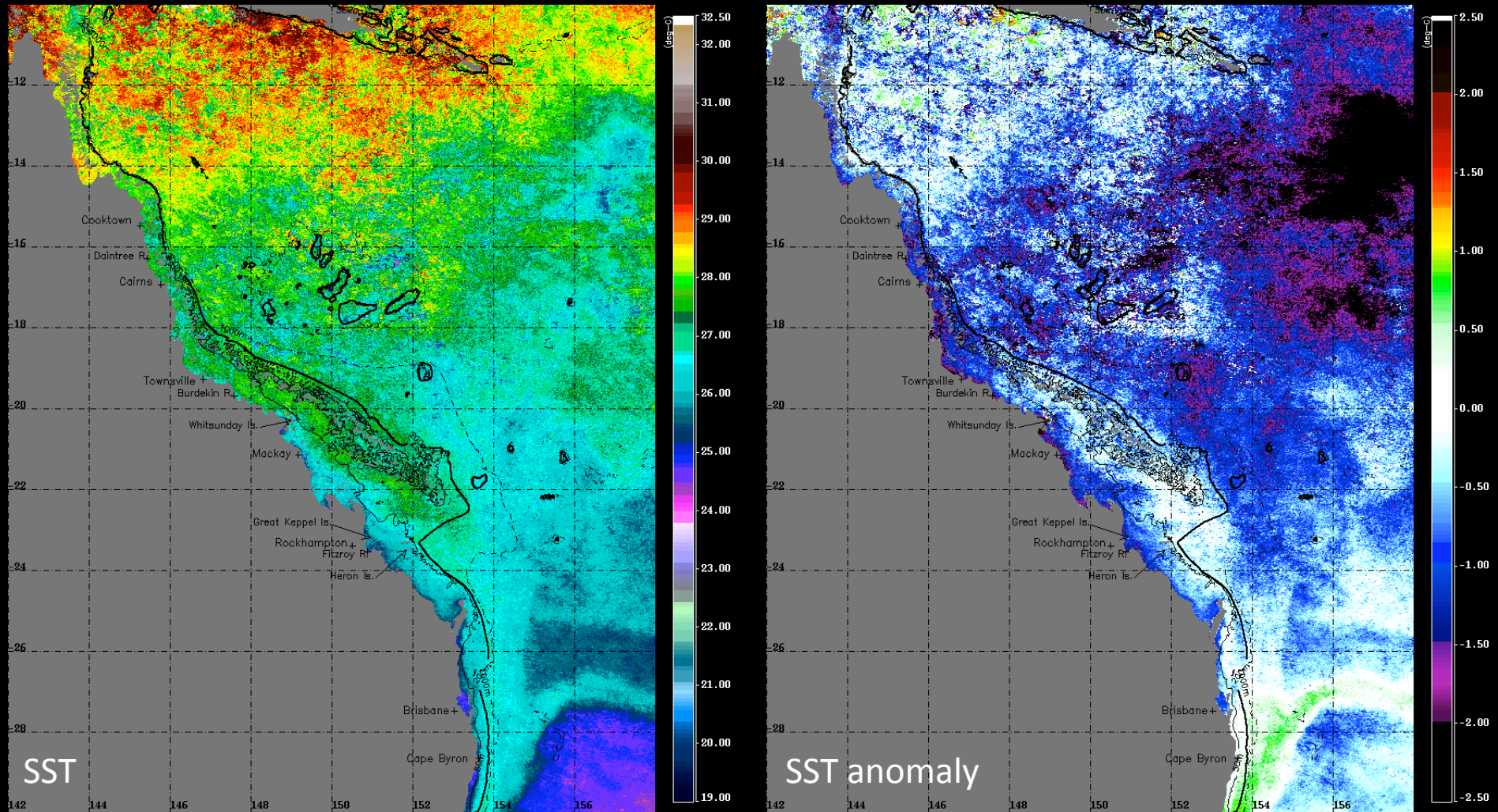


Note:

(considerable cloud cover experienced during the month of March)

- Marked positive SST anomalies during the first half of the month.

Modis SST (day+night): 15–30 March 2010

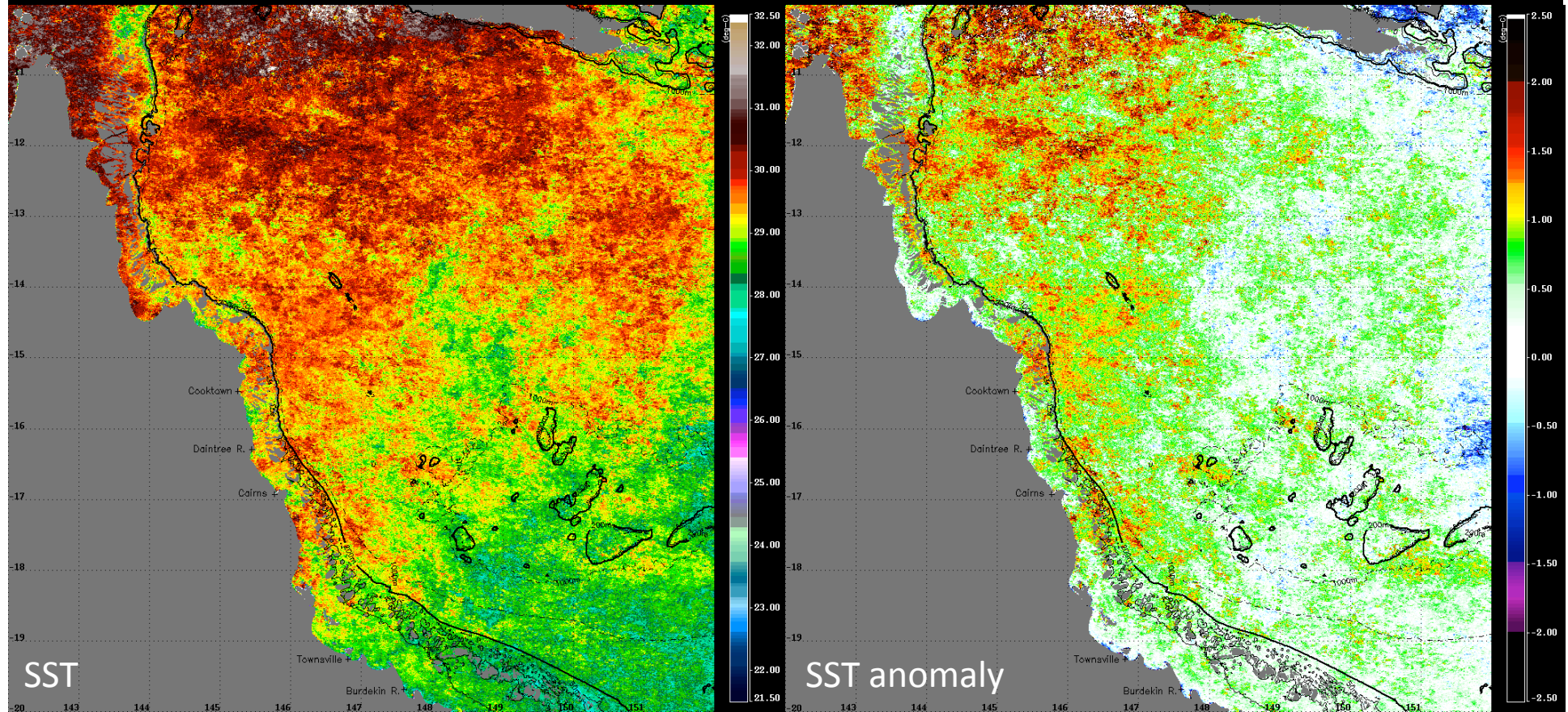


Note:

(considerable cloud cover experienced during the month of March)

- Pronounced shift towards negative anomalies in the second half of March, related to vertical mixing due to stormy conditions and cyclone activity

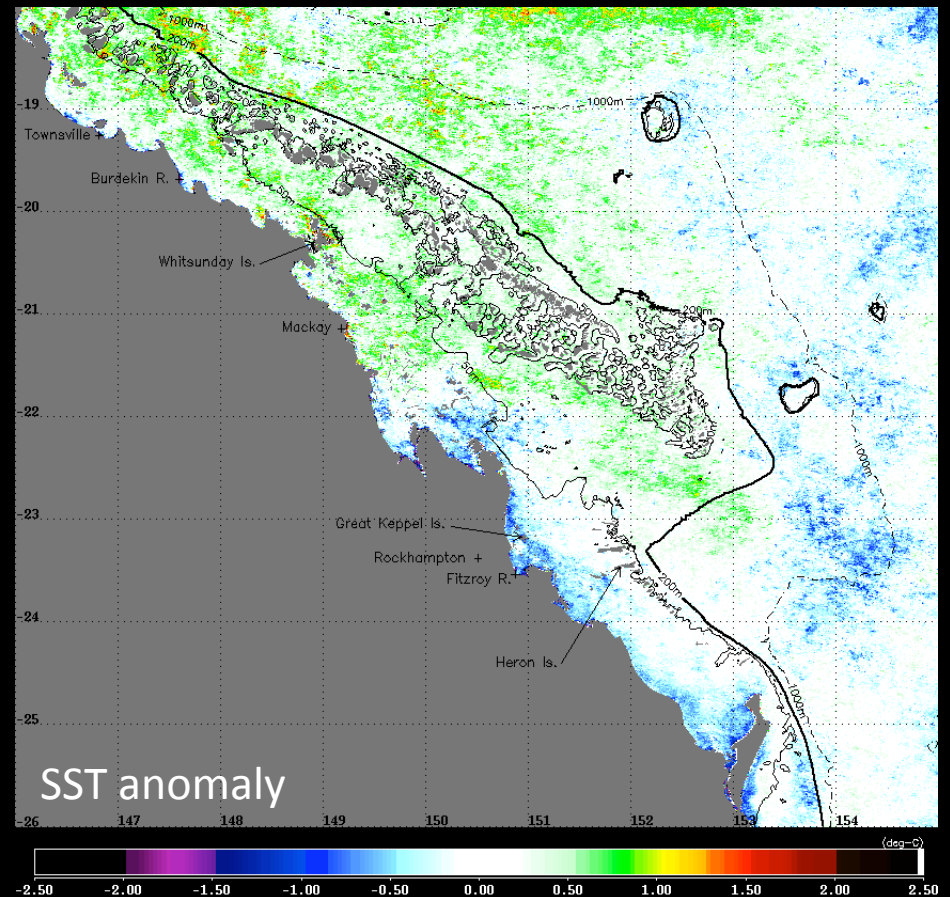
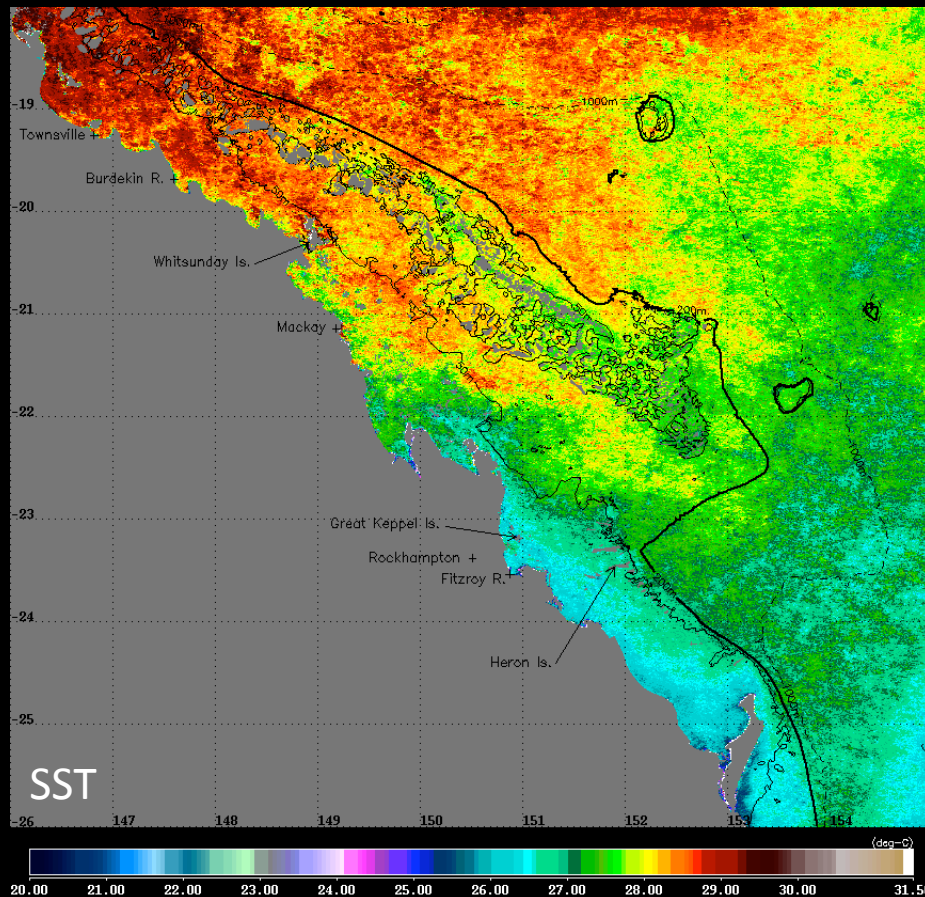
Northern GBR SST: March 2010



Note:

- Positive SST anomalies over much of the N-GBR.

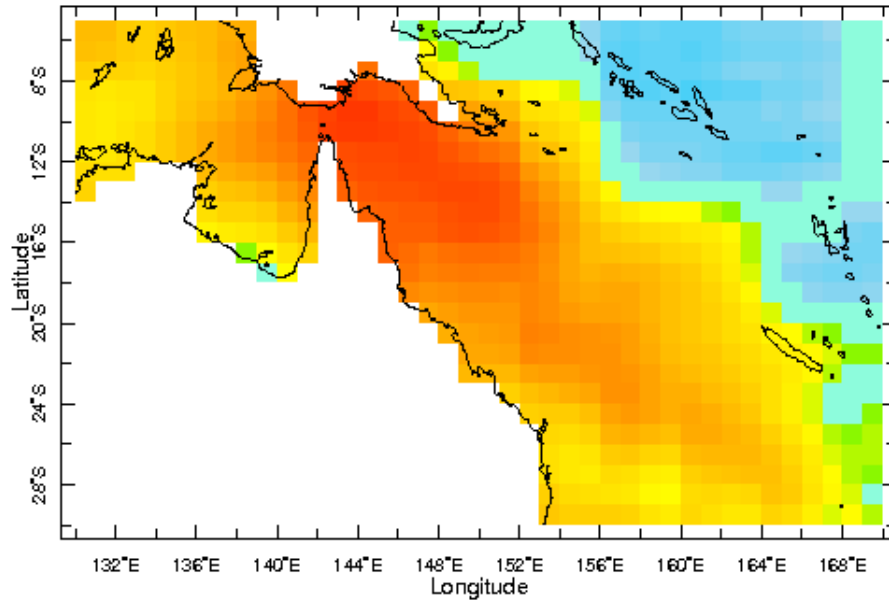
Southern GBR SST: March 2010



Note:

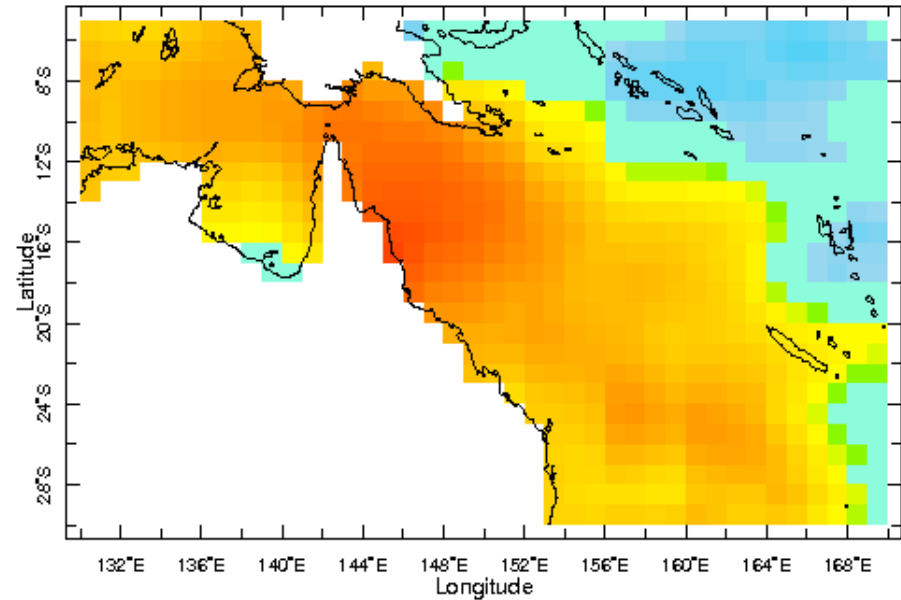
- previous positive anomalies in the Capricorn Bunker region have dissipated towards negative or close-to average conditions.
- Marginally positive anomalies over the rest of the S-GBR

NOAA NCEP EMC CMB GLOBAL Reyn_SmithOlv2 weekly ssta: Sea Surface Temperature Anomaly data



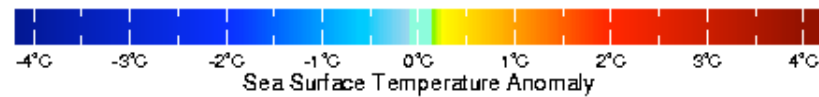
28 Feb 2010 - 6 Mar 2010

28 Feb – 06 Mar 2010



3 Mar 2010

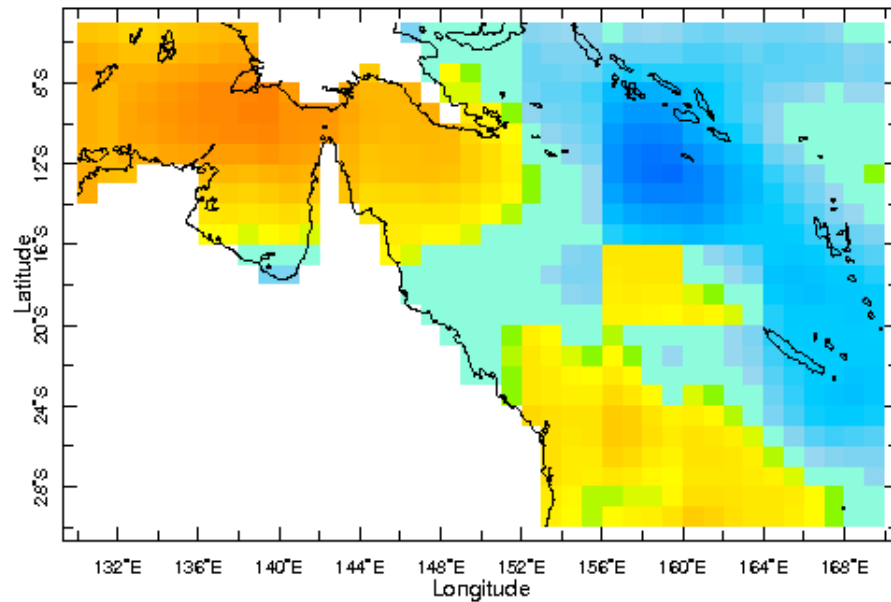
07-13 Mar 2010



Note:

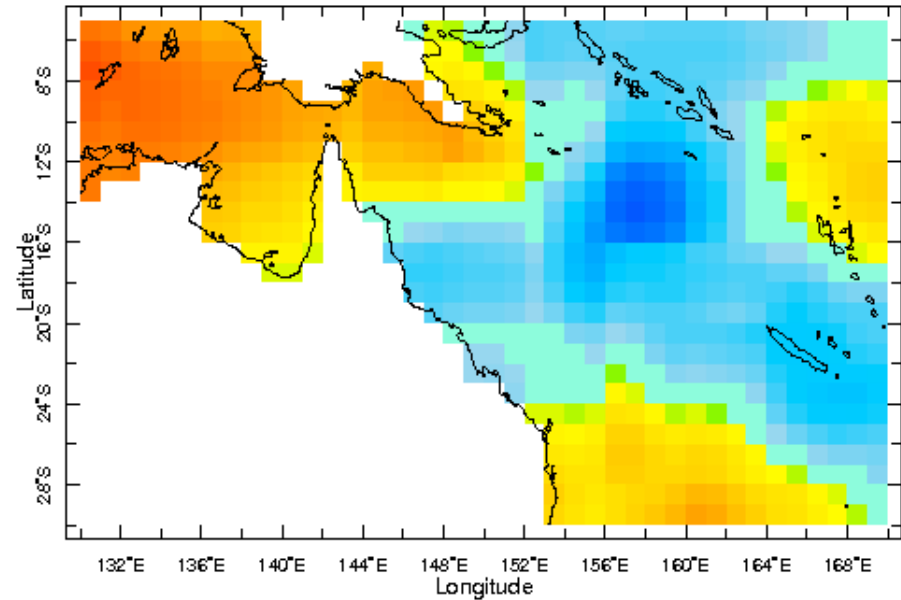
- NOAA Reynolds SST anomaly products show positive anomalies (especially on the N-GBR) in the first half of March

NOAA NCEP EMC CMB GLOBAL Reyn_SmithOlv2 weekly ssta: Sea Surface Temperature Anomaly data



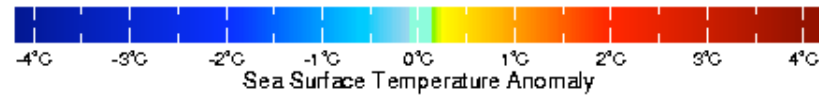
14-20 Mar 2010

14 – 20 Mar 2010



27 Mar 2010

21 – 27 Mar 2010



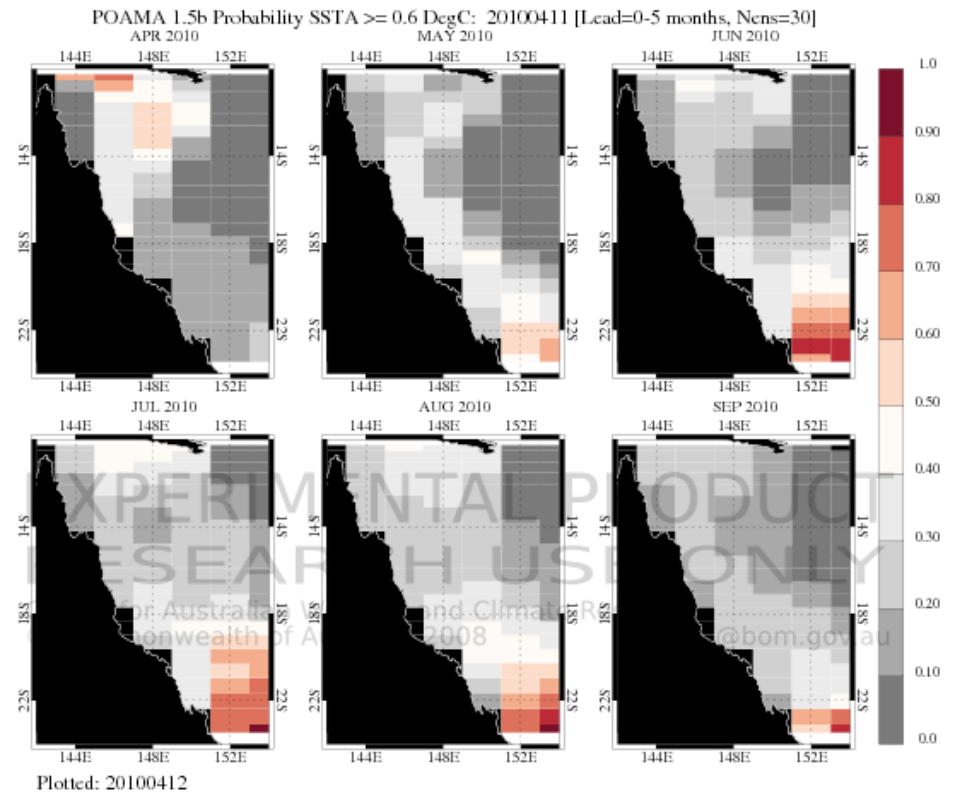
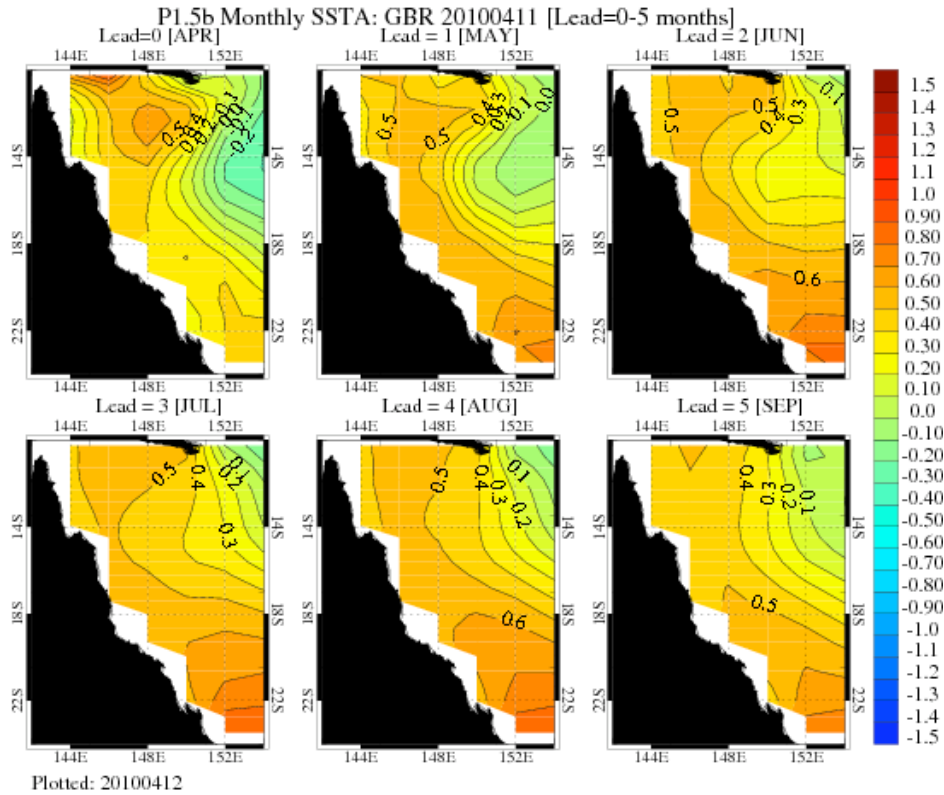
Note:

- Coincident with the MODIS SST data, the NOAA SST anomaly product shows strong negative anomalies in the Coral Sea in the second half of the month.

Experimental Great Barrier Reef SST Anomaly Forecasts (POAMA)

POAMA SST anomalies forecast for the following 6 months.

New POAMA product highlighting the probability of SST anomalies greater than 0.6 deg C for the following 6 months.



Note:

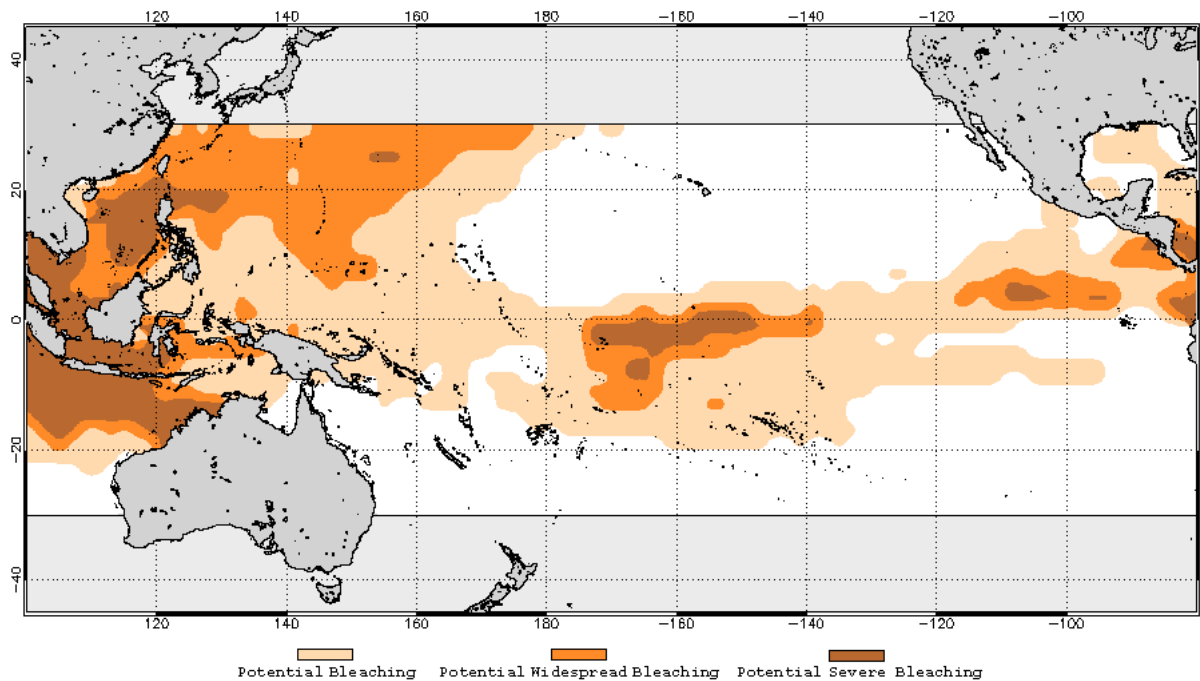
- POAMA forecast of SST is similar to the previous one, with positive SST anomalies predicted for most of the GBR in the following months.
- For April and May however, the forecast has changed to include the negative anomalies over the Coral Sea.

NOAA Coral Reef Watch

Seasonal Coral Bleaching Thermal Stress Outlook (Experimental product, 2x2 degree spatial resolution)

Outlook for April to July 2010

2010 Apr 06 NOAA Coral Reef Watch Coral Bleaching Thermal Stress Outlook for Apr-Jul 2010

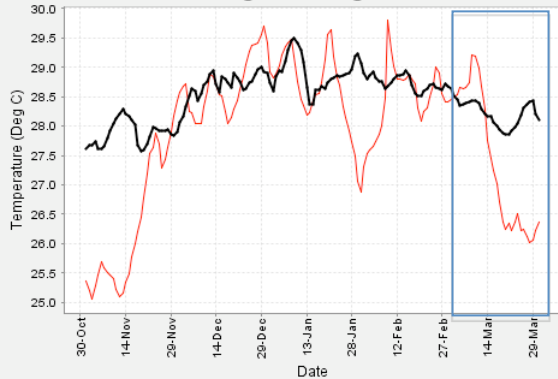


Note:

- NOAA thermal stress Outlook for April to July has change to show no risk of bleaching as we approach winter.

Weather Observing System: AIMS Data Centre

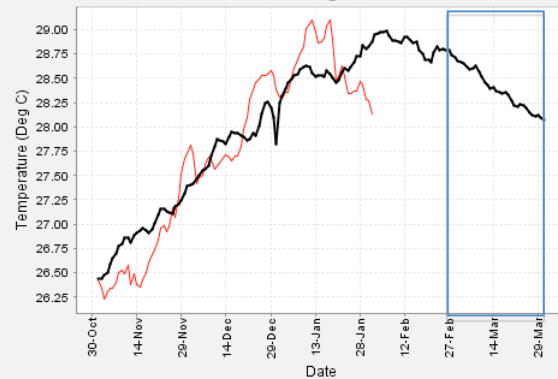
Cleveland Bay Water Temperature 2 Trend Against Long Term Avg



— wtemp_2 Long Term Average (over 10 years)
 — level1 wtemp_2 Station Average from 2009 thru 2010

Copyright © 2008. Australian Institute of Marine Science

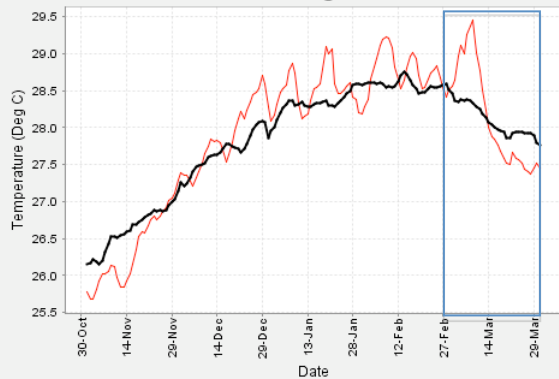
Agincourt Water Temperature 1 Trend Against Long Term Avg



— wtemp_1 Long Term Average (over 17 years)
 — level1 wtemp_1 Station Average from 2009 thru 2010

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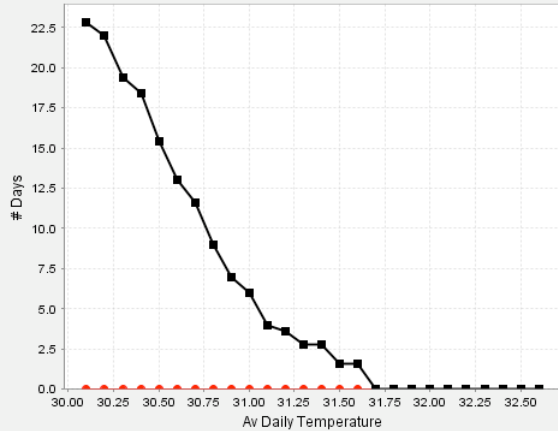
Davies Water Temperature 2 Trend Against Long Term Avg



— wtemp_2 Long Term Average (over 18 years)
 — level1 wtemp_2 Station Average from 2009 thru 2010

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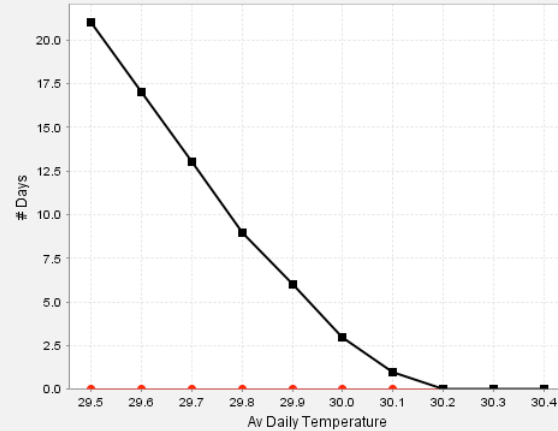
Cleveland Bay Threshold Data



■ Cleve Bay Threshold ● Number of days from 2009 thru 2010

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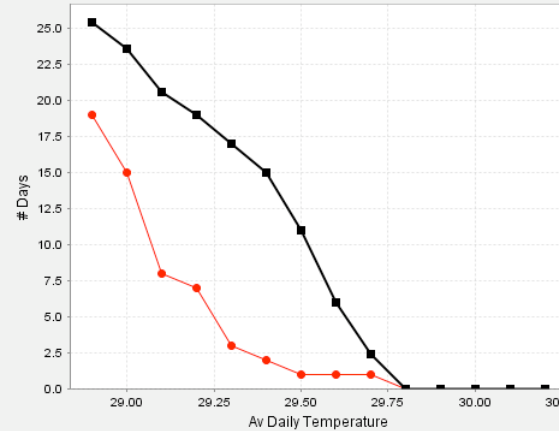
Agincourt Threshold Data



■ Agincrt Threshold ● Number of days from 2009 thru 2010

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Davies Threshold Data



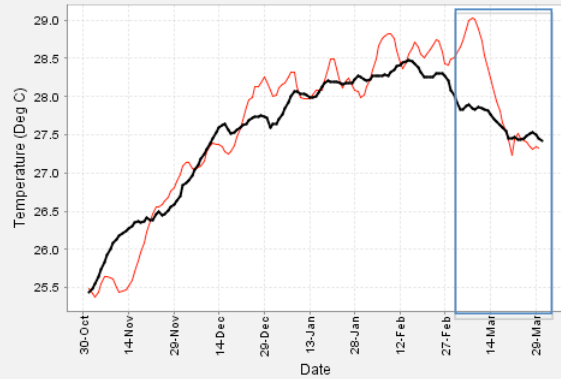
■ Davies Threshold ● Number of days from 2009 thru 2010

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- The graphs in the lower panels show the number of days exposure to temperatures at or above those indicated on the x-axis and how they compare to bleaching thresholds. Bleaching thresholds are site-specific and are an interpolation of SST and exposure times between warmest non-bleaching summers and coolest bleaching summers. When the time-temperature curve exceeds the predicted bleaching threshold, sensitive corals are in danger of bleaching.
- The graphs in the upper panels show the trends of average daily temperatures against the long-term average. The number of years of data used in calculating the long-term average is shown in the legend.

Weather Observing System: AIMS Data Centre

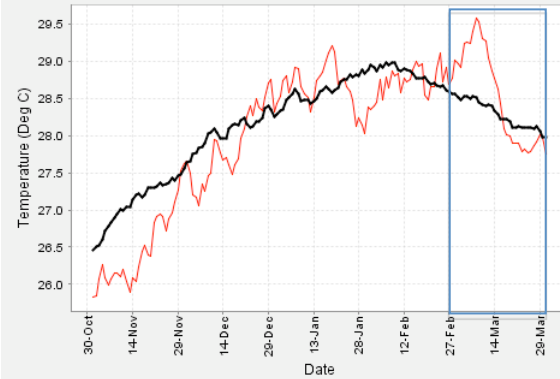
Hardy Water Temperature 2 Trend Against Long Term Avg



— wtemp_2 Long Term Average (over 19 years)
 — level1 wtemp_2 Station Average from 2009 thru 2010

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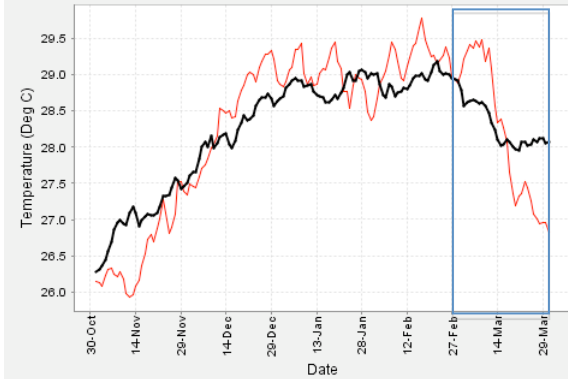
Myrmidon Water Temperature 2 Trend Against Long Term Avg



— wtemp_2 Long Term Average (over 22 years)
 — level1 wtemp_2 Station Average from 2009 thru 2010

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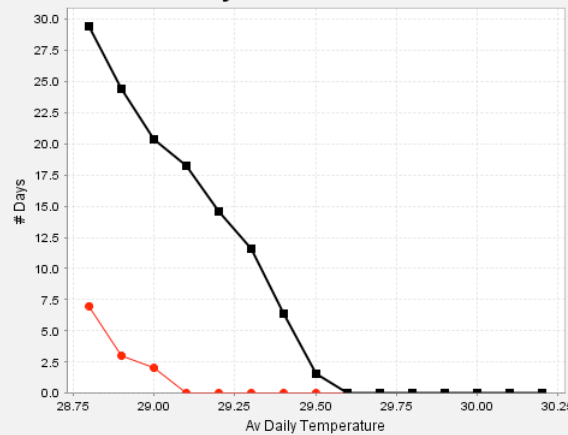
Orpheus Water Temperature 2 Trend Against Long Term Avg



— wtemp_2 Long Term Average (over 7 years)
 — level1 wtemp_2 Station Average from 2009 thru 2010

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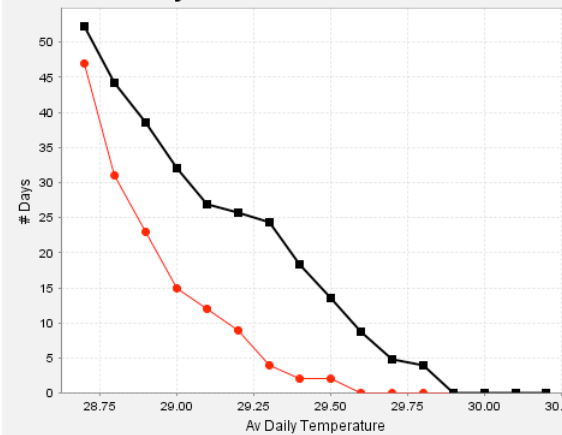
Hardy Threshold Data



■ Hardy Threshold ● Number of days from 2009 thru 2010

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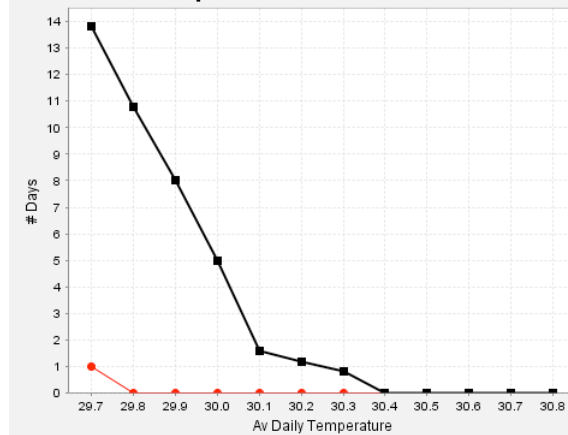
Myrmidon Threshold Data



■ Myrm Threshold ● Number of days from 2009 thru 2010

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Orpheus Threshold Data



■ Orpheus Threshold ● Number of days from 2009 thru 2010

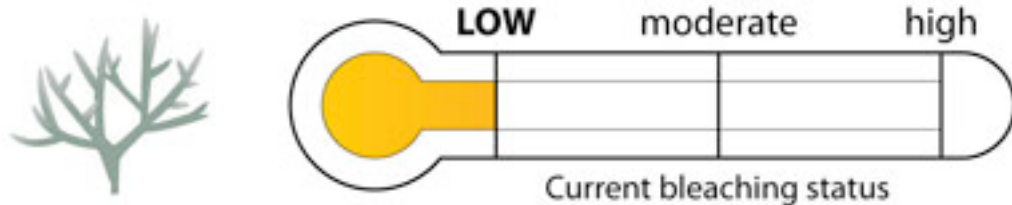
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Note:

- The AIMS in situ data show an increase of temperature in late February-early March, with a marked decrease in the 2nd half of March, (related to vertical mixing due to increased storm activity), clearly consistent with MODIS & Reynolds SST data.

Current bleaching status (GBRMPA)

March 2010



“Overall, reports from the BleachWatch network indicate that the current levels of coral bleaching across the entire Great Barrier Reef are LOW.

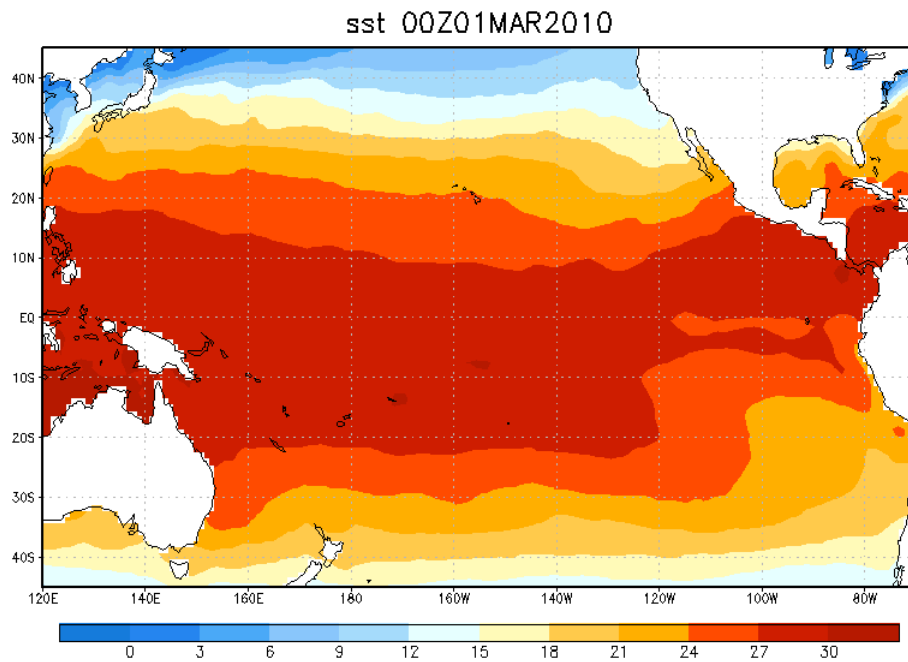
Each summer, the Great Barrier Reef Marine Park Authority works with the BleachWatch network of volunteers to detect any early signs of coral bleaching on the Reef. A total of 445 BleachWatch reports have been received since November. The majority (83 per cent) of the reports record no bleaching. Of the remainder, 15 per cent show minor seasonal bleaching (paling), and two percent show moderate bleaching. Follow up investigations of the bleaching reports has indicated that moderate bleaching has generally been concentrated on shallow reefs areas. In addition, in several cases the bleaching that has been observed has been uneven across the affected coral colonies. These patterns appear to be more consistent with exposure and rainfall resulting from the king tides in late January/February 2010, rather than temperature stress.

For more information on BleachWatch program contact the BleachWatch coordinator at bleachwatch@gbrmpa.gov.au .

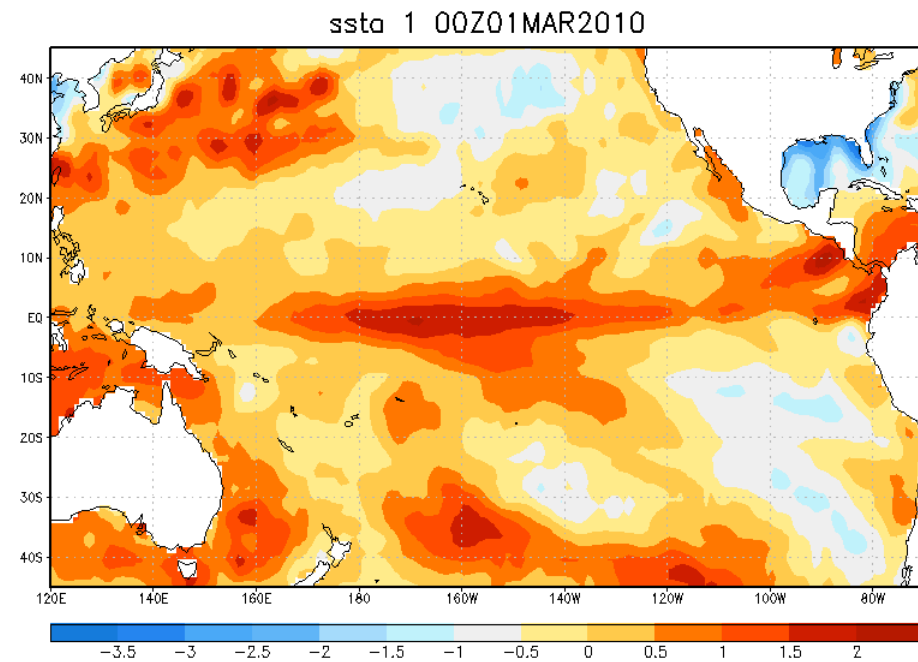
Extracted from http://www.gbrmpa.gov.au/corp_site/key_issues/climate_change/management_responses/coral_bleaching_status

NOAA Optimum Interpolation Sea Surface Temperature Analysis:

OI SST: MARCH 2010



OI SST ANOMALY: MARCH 2010

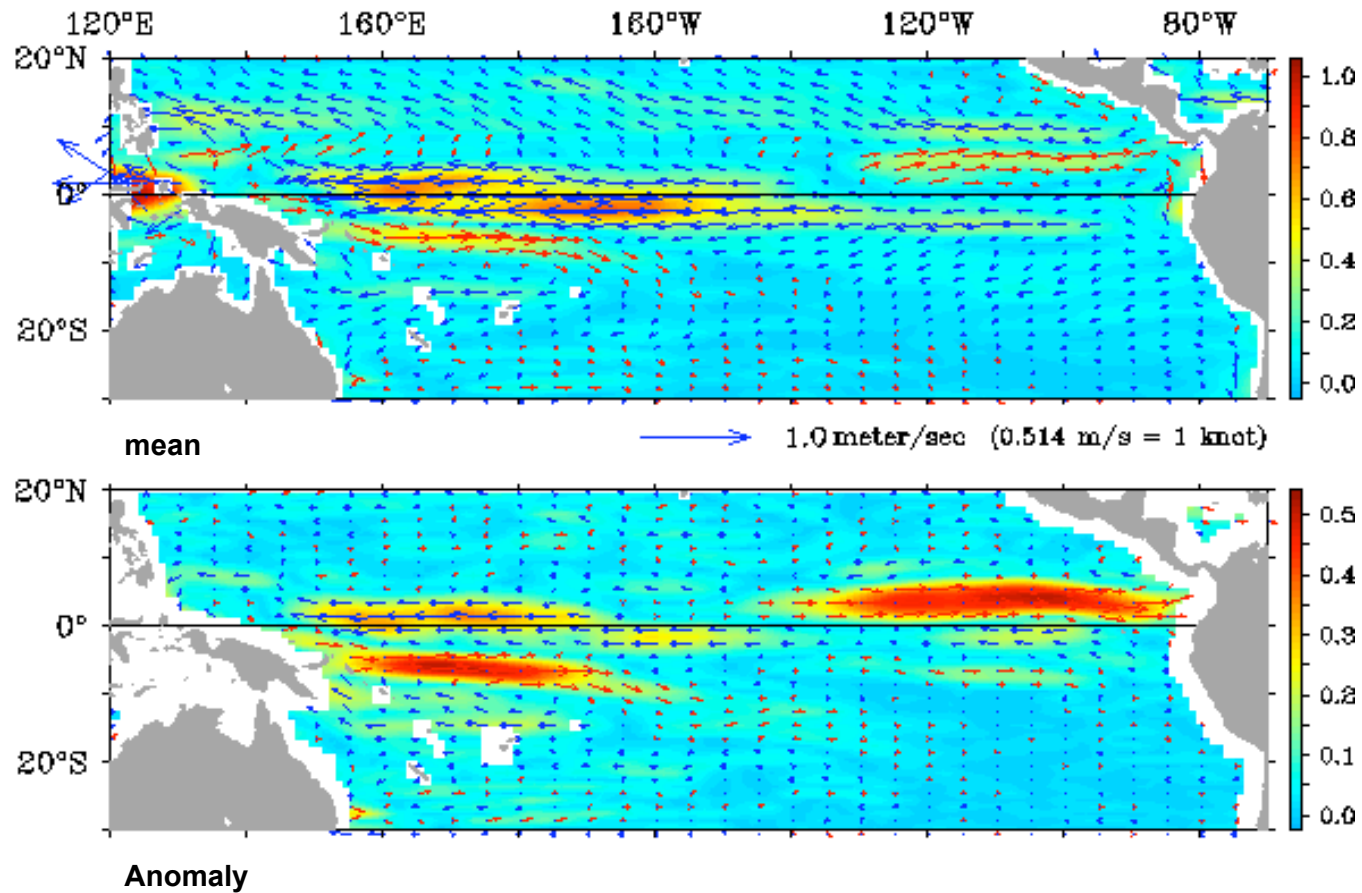


Note:

- El Niño-like conditions still present over the equatorial Pacific, with SST anomalies over 1deg C for the central equatorial Pacific.

OSCAR: Ocean Surface Current Analysis - Real time

Monthly Mean Ocean Surface Currents (meter/sec)
Centered on March 15 2010



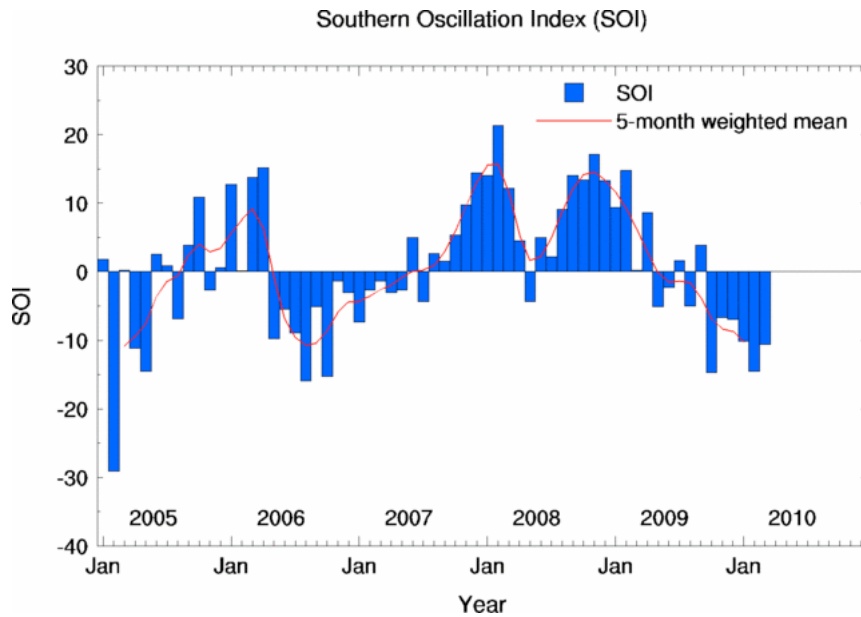
NESDIS/NOAA

Apr 12 2010

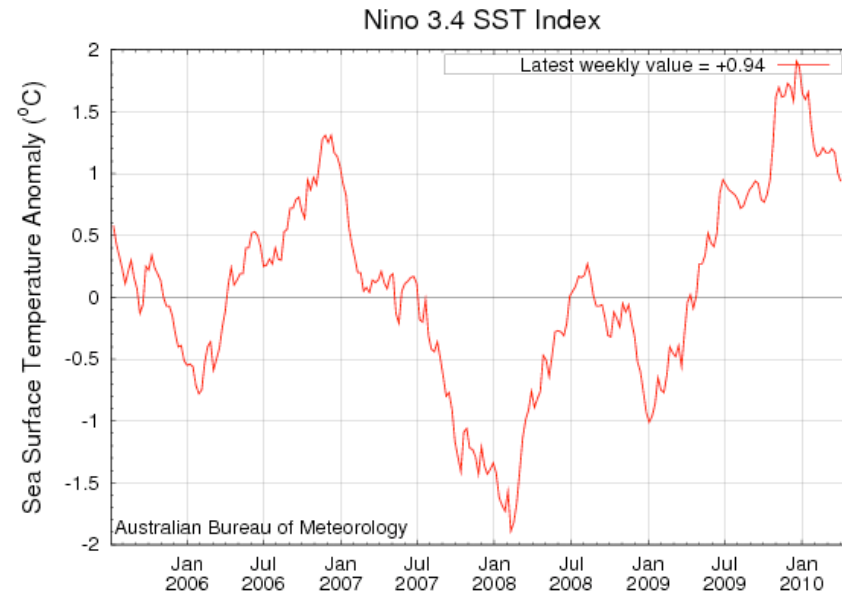
Note:

- The strong anomalies present in February in the western equatorial Pacific have dissipated, but are still present in the east.
- Strong and anomalous SECC.

ENSO index



Negative SOI = El Niño



Positive Nino 3.4 index= El Niño

Note:

- Both indices show that El Niño conditions still remain, but have weakened during March
- Most of the models predict that El Niño conditions will continue until the austral winter, but with increased weakening.