

Project Manta

East Australian Current (EAC) Region Oceanographic conditions report

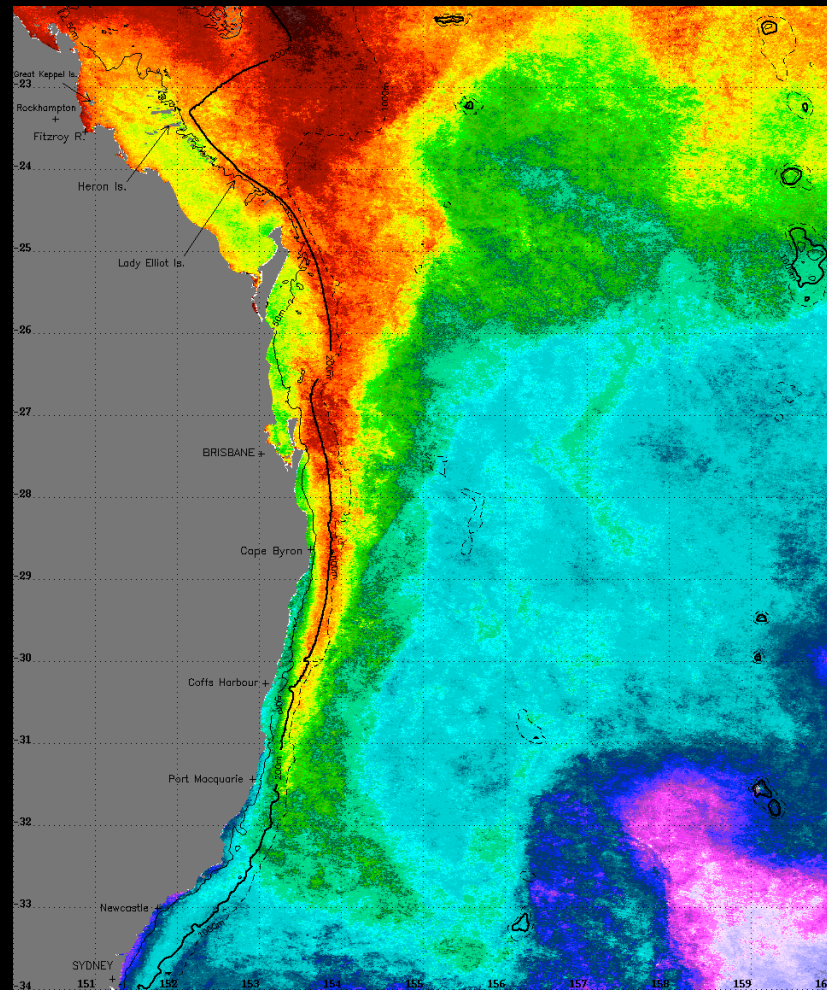
January 2012

Marites M. Magno-Canto

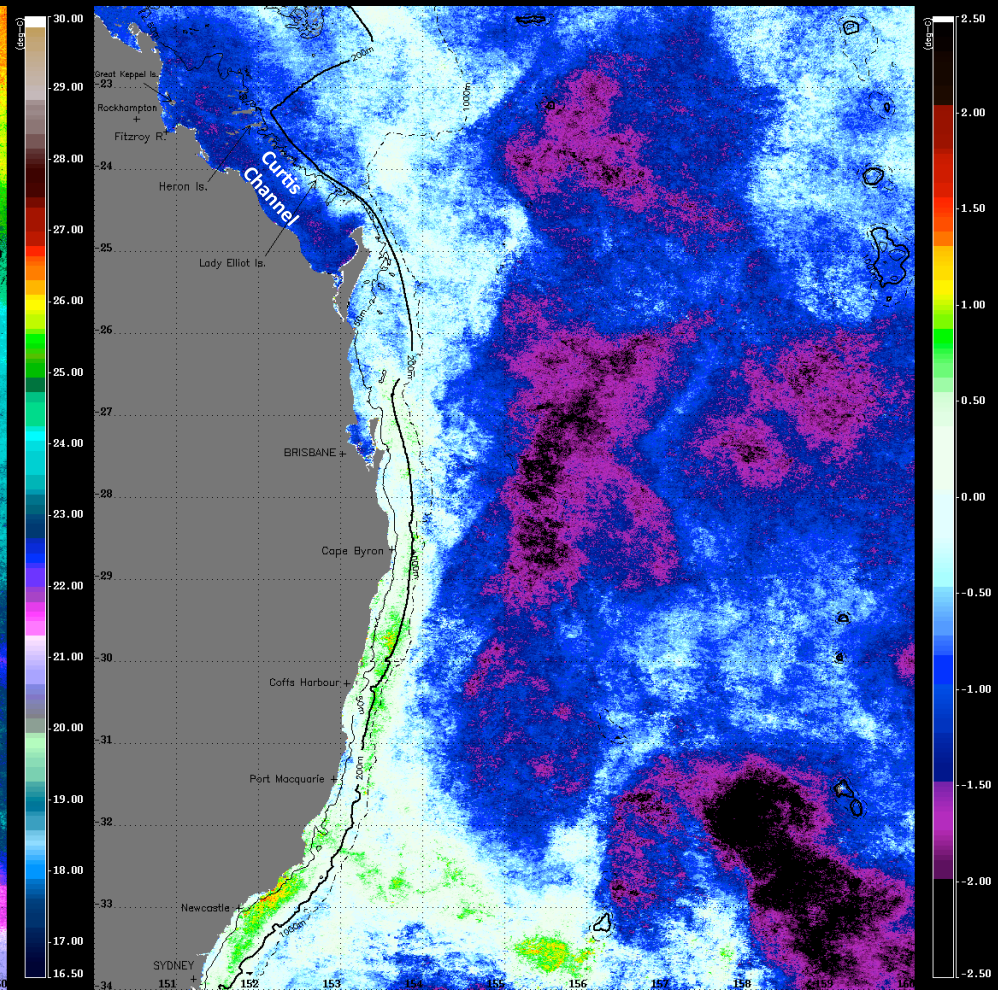
Supervised by Scarla Weeks

UQ-GPEM Biophysical Oceanography Group

EAC Monthly MODIS SST (D+N): January 2012



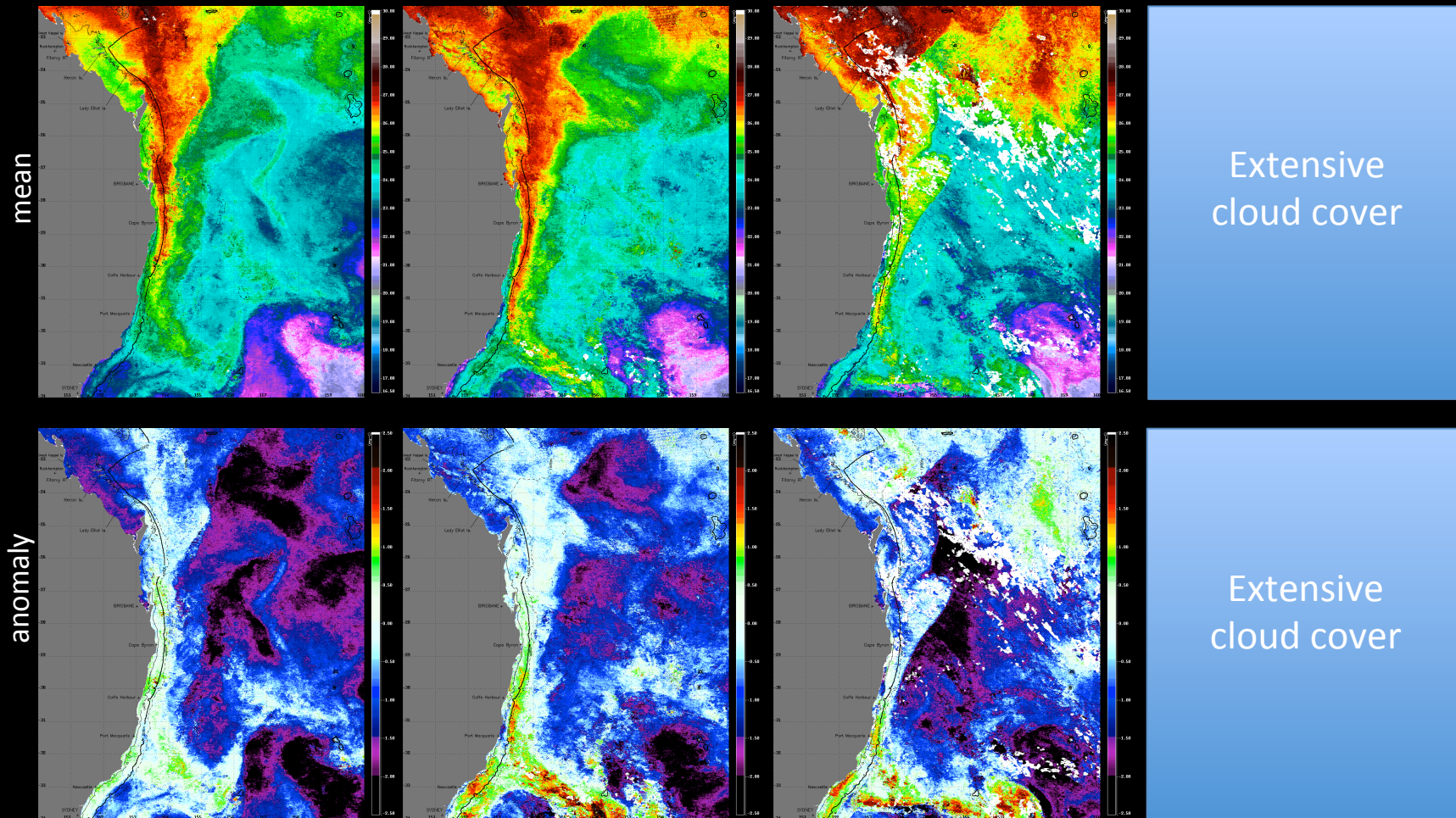
mean



anomaly

- Intense negative SST anomalies offshore and on the inner shelf of the southern GBR
- Weak to moderate positive anomalies along the path of the intensified (compared to the previous month) EAC
- Moderate positive anomalies on the inner shelf south of 32°S

EAC Weekly MODIS SST (D+N): starting from 1-7 January 2012



- Strong southward propagation of the EAC
- Surface expression of the Capricorn Eddy not evident
- Intense negative anomalies on the inner shelf of the southern GBR and offshore that progressively change to positive anomalies by 3rd week of January
- Increasing positive anomalies (with a north-south gradient) along the EAC path
- Strong surface frontal development as EAC propagates southward and interacts with the Tasman Sea waters

Update on the mooring dataset

General remarks:

- Relevant IMOS moorings for PM: Capricorn Channel, GBROTE (One Tree Is east), NSI
- Commenced data downloads and initial plotting of sample data (SST) for the ANMN-QLD GBROTE platform/facility
- Data available as netcdf files

Notes:

- Data has NOT been quality controlled, nor has tidal signal been removed – this will need to be done manually
- Each re-deployment of mooring (6-8mo) not in exactly same location or depth – need to correct for this

Catalog http://opendap-vpac.arcs.org.au/thredds/catalog/IMOS/ANMN/QLD/GBROTE/catalog.html		
Dataset	Size	Last Modified
 GBROTE		--
 Biogeochem timeseries/	9 files available	--
 Temperature/	23 files available (downloaded)	--
 Velocity/	3 files available	--
OPeNDAP at ARCS THREDDS Data Server [Version 4.2.5 - 20110302.2315] Documentation		

- Initial plots using R - see last slide

Update on the mooring dataset

Catalog <http://opendap-vpac.arcs.org.au/thredds/catalog/IMOS/ANMN/QLD/GBROTE/Temperature/catalog.html>

Dataset	Size	Last Modified
 Temperature		--
IMOS_ANMN-QLD_TE_20070915T083000Z_GBROTE_FV01_GBROTE-0709-SBE39-19_END-20080508T133000Z_C-20120206T043804Z.nc	1.849 Mbytes	2012-02-08 00:32:32Z
IMOS_ANMN-QLD_TE_20070915T083000Z_GBROTE_FV01_GBROTE-0709-SBE39-9_END-20080508T133000Z_C-20120206T043808Z.nc	1.849 Mbytes	2012-02-08 00:32:33Z
IMOS_ANMN-QLD_TE_20080509T003000Z_GBROTE_FV01_GBROTE-0805-SBE39-10_END-20081027T023500Z_C-20120206T011053Z.nc	1.346 Mbytes	2012-02-07 23:45:01Z
IMOS_ANMN-QLD_TE_20081028T230000Z_GBROTE_FV01_GBROTE-0810-SBE39-13_END-20090421T042700Z_C-20120205T161036Z.nc	1.378 Mbytes	2012-02-07 23:24:23Z
IMOS_ANMN-QLD_TE_20081028T230000Z_GBROTE_FV01_GBROTE-0810-SBE39-23_END-20090421T042700Z_C-20120205T161035Z.nc	1.378 Mbytes	2012-02-07 23:24:23Z
IMOS_ANMN-QLD_TE_20090423T013000Z_GBROTE_FV01_GBROTE-0904-SBE39-20_END-20091009T045600Z_C-20120202T060037Z.nc	1.343 Mbytes	2012-02-07 06:40:49Z
IMOS_ANMN-QLD_TE_20090423T013000Z_GBROTE_FV01_GBROTE-0904-SBE39-56_END-20091009T045600Z_C-20120202T060033Z.nc	1.343 Mbytes	2012-02-07 06:41:17Z
IMOS_ANMN-QLD_TE_20091012T030000Z_GBROTE_FV01_GBROTE-0910-SBE39-20_END-20100419T232600Z_C-20120202T010842Z.nc	1.515 Mbytes	2012-02-07 02:11:51Z
IMOS_ANMN-QLD_TE_20091012T030000Z_GBROTE_FV01_GBROTE-0910-SBE39-56_END-20100419T232600Z_C-20120202T010835Z.nc	1.510 Mbytes	2012-02-07 02:11:53Z
IMOS_ANMN-QLD_TE_20100424T033900Z_GBROTE_FV01_GBROTE-1004-SBE39-19_END-20100901T014500Z_C-20120131T062459Z.nc	1.039 Mbytes	2012-02-07 01:23:18Z
IMOS_ANMN-QLD_TE_20100424T033900Z_GBROTE_FV01_GBROTE-1004-SBE39-19_END-20100901T014500Z_C-20120131T062507Z.nc	300.9 Kbytes	2012-02-07 01:23:17Z
IMOS_ANMN-QLD_TE_20100905T050600Z_GBROTE_FV01_GBROTE-1008-SBE39-19_END-20110310T021900Z_C-20120130T011131Z.nc	1.262 Mbytes	2012-02-03 05:59:26Z
IMOS_ANMN-QLD_TE_20100905T050600Z_GBROTE_FV01_GBROTE-1008-SBE39-55_END-20110310T021900Z_C-20120130T011138Z.nc	1.473 Mbytes	2012-02-03 05:59:26Z
IMOS_ANMN-QLD_TE_20110314T234500Z_GBROTE_FV01_GBROTE-1103-SBE39-19_END-20110816T033700Z_C-20120128T072235Z.nc	1.288 Mbytes	2012-02-03 05:21:58Z
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IMOS_ANMN-QLD_TPE_20090423T013000Z_GBROTE_FV01_GBROTE-0904-SBE39-9_END-20091009T045600Z_C-20120202T060039Z.nc	1.794 Mbytes	2012-02-07 06:41:18Z
IMOS_ANMN-QLD_TPE_20091012T030000Z_GBROTE_FV01_GBROTE-0910-SBE39-9_END-20100419T232600Z_C-20120202T010837Z.nc	1.993 Mbytes	2012-02-07 02:12:00Z
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IMOS_ANMN-QLD_TPE_20100905T050600Z_GBROTE_FV01_GBROTE-1008-SBE39-8_END-20110310T021900Z_C-20120130T011133Z.nc	1.964 Mbytes	2012-02-03 05:59:28Z
IMOS_ANMN-QLD_TPE_20110314T234500Z_GBROTE_FV01_GBROTE-1103-SBE39-13_END-20110816T033700Z_C-20120128T072230Z.nc	1.652 Mbytes	2012-02-03 05:22:01Z

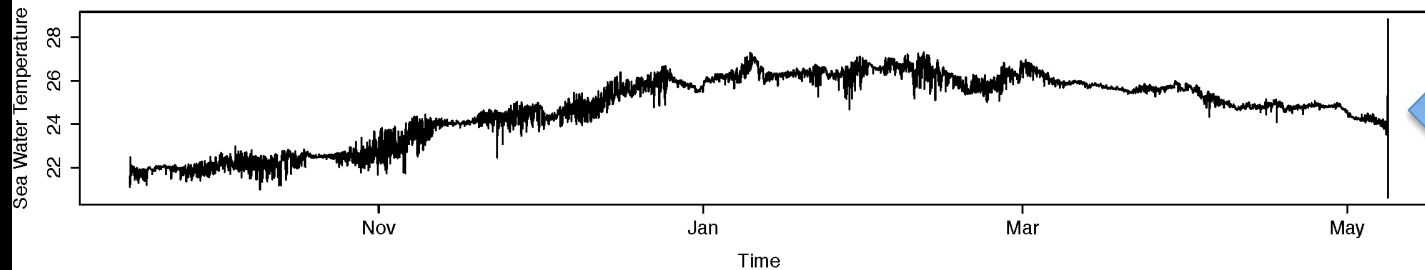
OPeNDAP at ARCS

THREDDS Data Server [Version 4.2.5 - 20110302.2315] Documentation

- Screen capture of the available SST data
- Filenames indicate data type (e.g., TE, TPE), start and end date of timeseries, nominal depth
- Need to figure manually (using the filename) the sequence of the data as well as group them according to nominal depth of measurement

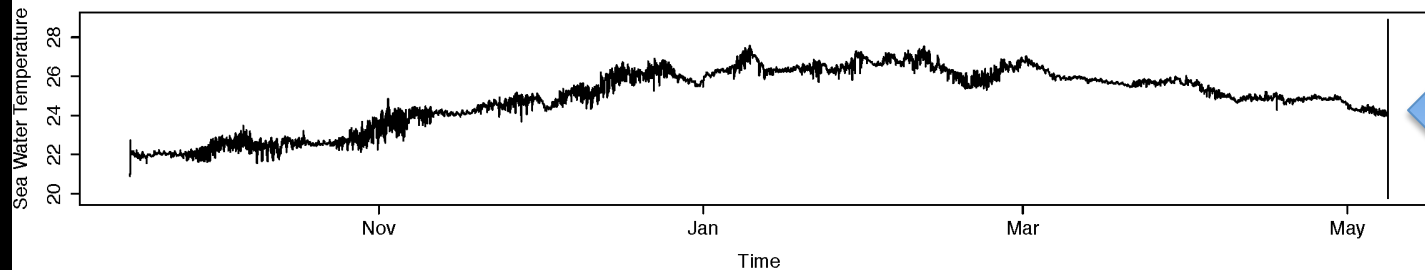
Update on the mooring dataset

IMOS_ANMN-QLD_TE_20070915T083000Z_GBROTE_FV01_GBROTE-0709-SBE39-19_END-20080508T133000Z_C-20120206T043804Z.



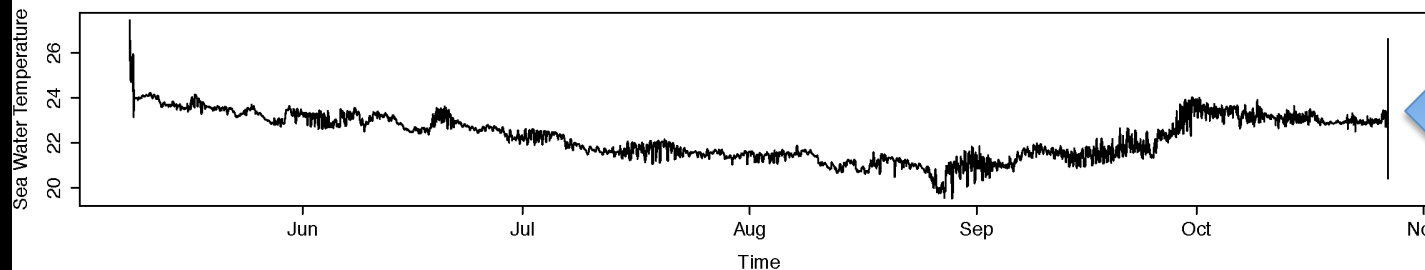
data from 2007-Sep-15 to
2008-May-08 at nominal
depth of 19m

IMOS_ANMN-QLD_TE_20070915T083000Z_GBROTE_FV01_GBROTE-0709-SBE39-9_END-20080508T133000Z_C-20120206T043808Z.



data from 2007-Sep-15 to
2008-May-08 at nominal
depth of 9m

IMOS_ANMN-QLD_TE_20080509T003000Z_GBROTE_FV01_GBROTE-0805-SBE39-10_END-20081027T023500Z_C-20120206T011053Z.



data from 2008-May-09
to 2008-Oct-27 at
nominal depth of 10m

Raw sample plots of sea water temperature for GBROTE generated in R