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regarding one, and we hope to repeat this success in the upcoming 2013/14 summer.

Lab no. 10, in 2012 is a final determined by the CCRC to demonstrate in o

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Con in ing aff appoin ed o he CCRC incl de one La rea e Fello (England), o F re Fello (Mei ner and E an), one ARC QEII Fello (McNeil), and o ARC F re Fello (Mei ner and E an) Fi ed erm aff incl de an ARC A ralian Re earch Fello , an ARC Po doc oral Fello and hree S per Science Fello .

The CCRC al o ho e Chri T rne , a La rea e Fello appoin ed o BEES. Chri re earch gro p incl de F re Fello Dr Chri Fog ill.

The CCRC con in e o a rac di ing i hed i i or on abba ical a incl ding Profe or Tim Bralo er, Dr Ka mi Ma mo o and Profe or R diger Gerde in 2012. The Cen re i al o a o gh o de ination for in erna ional re earcher making hor er i i (Dr Annegre Lar en, Dr Pa l O Gorman and Dr Simon Wild) a ell a for den on re earch in ern hip

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(Abramo i , E an , Sen G p a, Kid on, Ta che o, an Seville, Mei ner and Wa erman). The o cen re cce f ll hare pace and admini ra i e ppor and here are ignifican oppor ni ie for collabora ion acro he re earch reng h and foci of bo h cen re .

CCRC cce in a rac ing gran f nding con in ed hro gh 2012. In addi ion o re earch projec carr ing on from pre io ear , eigh ne l a arded re earch projec commenced in 2012. Among he ne l e abli hed projec are Ja on E an Linkage projec on Ea Coa lo pre re em and S ephanie Wa erman and Joe Kid on ARC DECRA .

A f ll li ing of re earch projec in progre in 2012 appear in Appendi B.

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Under standing how the ocean works and how ocean currents move materials and
around the Earth is a core Center activity. Real world applications for his
research are already emerging.

In a fascinating piece of research, **Dr Erik Van Sebille** (doi:10.1088/1748-
9326/7/4/044040) examined the movement of plastic pollution around the
ocean. In the process of doing this, he discovered that an entire new plastic
garbage patch could potentially form in the Barents Sea within the next few decades.
At the same time, his research also showed for the first time that ocean pollution like
plastic moves freely between garbage patches. Previously, it was expected that
there would be no change of pollution plastic between the patches.

To achieve his results, the researcher used data from drifter buoys, which are part of
the [Global Drifter Program](#), to determine the movement of surface ocean currents.
The program releases hundreds of drifter
buoys into the ocean every year.
Each buoy floats around the ocean sending
out regular 140 character messages on its
location and the ocean conditions it
is experiencing. Dr Van Sebille described it as
being like Twitter from the ocean.

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In collaboration with the NSW Office of Environment and Heritage (OEH) and led a the CCRC by Associate Professor Jonathan Egan, we are developing a fine-scale climate projection for south-east Australia as part of the NSW and ACT Regional Climate Modelling project or NARClIM.

NARClIM will improve our ability to predict change in temperature, wind and rainfall

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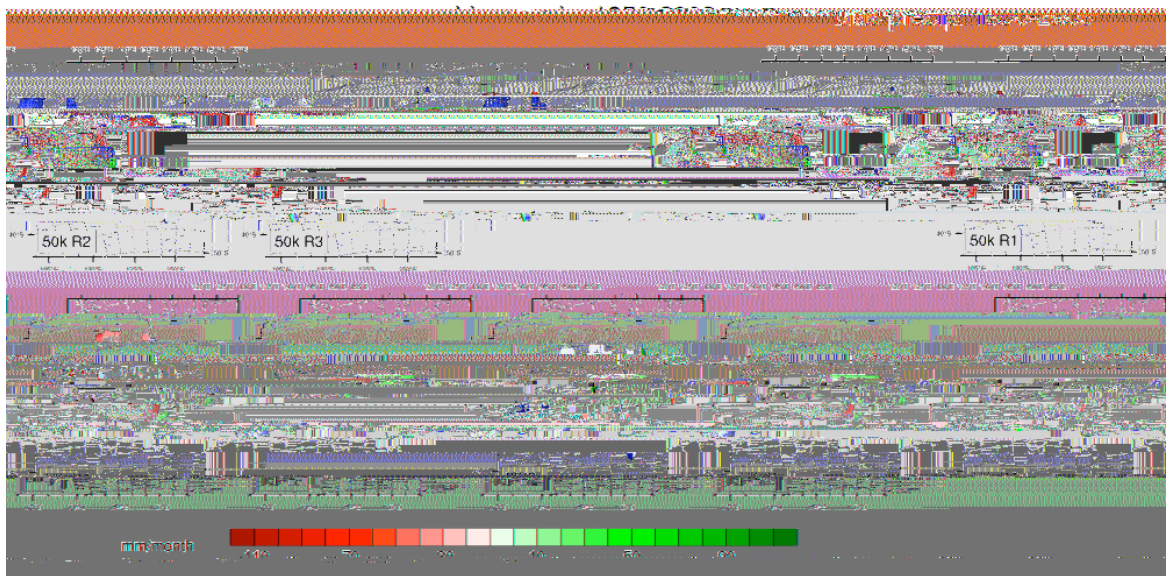
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NARcliM is designed to give the community access to both regional climate modelled data and, more importantly, information has combined the model projection into climate data which can be readily understood by the public and agencies like local governments. Inquiry, comment and information tools are being developed including feedback from a user reference group. This will include tools to calculate fire risk, hazard or extreme events, such as flood risk.

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A report on the findings and interpreting the projected change in climate across NSW will be jointly completed by staff from OEHS and the Climate Change Research Centre at the University of NSW.

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Top: Shows Regional model R2 end of the period in terms of precipitation. Below: R3 end of the period for temperature

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The Climate Change Research Centre has a growing cohort of Postgraduate research students. There were 25 students enrolled in the centre PhD program, 1 Master student and 4 Honorary students perished in 2012.

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Summary of a emen of financial performance

The Climate Change Research Centre total revenue for 2012 is \$5,825,800.

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