

From: John Ryan <ryjo@mbari.org>
Subject: [CANON-ECOHAB] Post-intensive update
Date: March 25, 2013 9:51:33 AM PDT
To: CANON-ECOHAB Distribution List <canon-ecohab@listserver.mbari.org>
Reply-To: John Ryan <ryjo@mbari.org>

Hello all,

The R/V Carson is back in Moss Landing. The intensive observations during the Carson operations clearly resolved a transitional period. You can see this in the series of Dorado sections:

http://odss.mbari.org/data/canon/2013_Mar/dropbox/Dorado/DoradoSectionSeries.pdf

More detail of each section can be found in the individual survey plots:

http://odss.mbari.org/data/canon/2013_Mar/dropbox/Dorado/

Some highlights:

- * Fluorometric chlorophyll was higher during the first 3-day block of March 15-17, associated with a moderate upwelling pulse. Phytoplankton populations were more diffuse and submerged beneath the warmed surface layer during the second 3-day block.
- * During the upwelling pulse, the highest fluorometric chlorophyll was evidently associated with the surface thermal front. Corresponding maxima in optical backscattering indicate true phytoplankton biomass maxima.
- * Subsurface chlorophyll maximum (SCM) populations were sampled by AUV and ship, and the SCM over the channel was the starting point for incubation experiments by both UCSC and USC.
- * Cross-shelf / channel sections suggest generation of a channel SCM from shelf populations. The greater along-coast coverage and temporal resolution of the LRAUV time-series will provide the key insight for this and other questions.

In addition to details of variation in the abundance and toxicity of *Pseudo-nitzschia* spatially and temporally through this transition, I am looking forward to the dimension of diversity that Holly will illuminate. As Holly describes it, in some ways this intensive exploration of a relatively "quiet" HAB period may be ideal for understanding the background from which certain species emerge to bloom. With 2.5 weeks remaining in the ESP deployment, probability suggests we'll see another upwelling pulse of some magnitude. Perhaps Mother Nature will consult probability...

ESPs are set to sample synchronously today at 1 pm, and they are set to autonomously respond to the key environmental signal we are watching for in the coming weeks.

Regards,

John