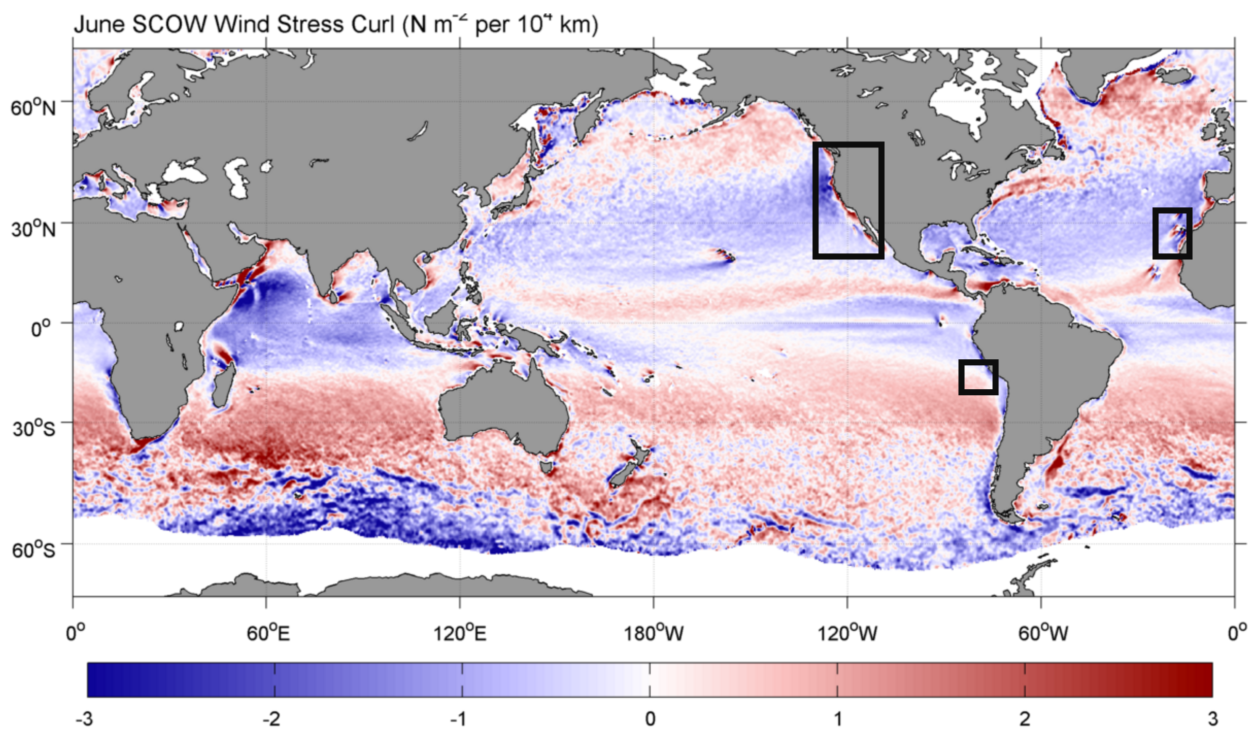
The second draft of the manuscript by Tim et al. offers some improvement over the previous version, but there are sever issue that remain and could be remedied with a more careful approach. Chief among these concerns is the use of vertical velocity from a broad areas of the ocean adjacent to the continents. Wind-stress curl is going to be the primary factor driving vertical velocity in these offshore regions. Despite the authors' insistence that curl-driven upwelling is positively correlated with alongshore wind stress, I am skeptical. On page 10, line 15, the authors note that wind-stress curl is driven by the ocean-to-land pressure gradient. Is there a manuscript that can be referenced for this statement? A figure providing evidence of the relationship between wind stress and vertical velocity (or their upwelling index) for the two models would illustrate these dynamics. For instance, on page 13, line 14, the authors note that this analysis was performed, but results are "not shown." Please show these results to alleviate concern. In the real world, alongshore wind stress in EBUSs and coastal areas and wind-stress curl in the gyres are negatively correlated (see examples at http://cioss.coas.oregonstate.edu/scow/wind_stress_curl.html). If the authors here are noting a positive correlation, that result must be dependent on the poor resolution of the models being used.

In the figure below, note the distinct change in sign in curl between the coast and the offshore areas, with downwelling curl offshore and upwelling curl at the coast.



I think this oversight is also responsible for the fact that they find that upwelling rates are a factor of two larger in their lower-resolution simulation than in the higher-resolution simulation. That seems to be counterintuitive until one realizes that a large portion of the regions of focus are subject to downwelling wind-stress curl in the real world. The models' ability to represent the downwelling associated with downwelling wind-stress curl likely increases with increasing model resolution, and so vertical velocity in the models the authors are examining decreases as model resolution increases.

This may also be one reason why the authors' results differ from those of Wang et al. (2015). Wang et al. (2015), in addition to using different regions, Wang et al. (2015), in addition to using different regions, used alongshore winds in estimating upwelling. Perhaps if the authors here had chosen to use alongshore wind stress as opposed to vertical velocity, the results would be more comparable to Wang et al. (2015) and Rykaczewski et al. (2015) and more relevant to the hypothesis of wind-stress intensification proposed by Bakun (1990). Bakun (1990) did not comment on wind-stress curl.

I continue to recommend that the upwelling seasons not be changed between the past and future periods in the Benguela system. Shifting the timing during which upwelling is examined seems to cast doubt on the authors' main conclusions. If it does not make a difference, maintain constant seasons for analysis.

On page 13, Lines 15-20, the authors note that the upwelling index is positively correlated with offshore pressure, as displayed in Figure 3. This appears to be true in regions other than California. In fact, it appears that the upwelling index is correlated with high pressure in the Eastern Tropical Pacific (El Niño-like conditions). This strikes me as odd, as El Ninos are typically associated with reduced coastal upwelling. However, this result may be attributed to the fact that the upwelling index used may be more indicative of curl than alongshore wind stress.

The caption of Figure 5 should refer to one ensemble with three members each run under two scenarios rather than two ensembles with three members each.