

Ryan Kapp  
955 Colony Ct. Bellingham, WA 98229  
(360)714-0882 [kappjr@comcast.net](mailto:kappjr@comcast.net)

June 10, 2013

Mr. Dan Wolford, Chair  
Pacific Fishery Management Council  
7700 NE Ambassador Place #200  
Portland, OR 97220-1384

Re: Agenda Item I.4.d CPS Harvest Parameters Public Comment

Dear Chair Wolford and Council Members,

I have fished for sardine out of Astoria, Oregon since 1999. I appreciate the opportunity to comment on the Harvest Control Rule (HCR) for Pacific Sardine.

In June 2009 I submitted a letter expressing my unease about the harvest fraction (F) relationship with sea surface temperature (SST). I understand one of the purposes in assigning a SST index to F is to permit more harvest opportunity when conditions are favorable and a reduction when things are less favorable. Looking back at the Scripps SST data this did not appear to be the case. The earliest temperature data from Scripps pier was in 1917. From that point until the mid-1930's was when sardine populations on the west coast were known to be expanding. This was a highly productive time period but, due to SST, there would have been many years with F set at the minimum of 5%.

CalCofi was formed in 1949 so data is not available for the 1917 – 1930's time period. However, the data presented in Table 2 of agenda item I.4.b illustrates my concern with F related to SST. In 2003 CalCofi SST would have resulted in a lower F. 2003 was one of the largest recruitment episodes since the reemergence of the fishery but SST results in a harvest reduction during a time when the population was increasing and more robust.

Whether the SST is derived from Scripps Pier or CalCofi there are still too many years where the SST relationship to F falls short. There are periods of decline where F is high and periods of increase where F is low. Though I am inclined to agree that SST is an important driver of productivity I am not yet compelled to think that tying it to the HCR in this manner will result in any assurance of better stock productivity or stability in the long term. There are surely more drivers of reproduction and recruitment than only using SST.

In closing, the outcomes of the simulation show the sardine biomass will continue to go up and down over periods of time regardless of harvest being set at 5, 10, 15%, or anywhere in between. The biggest part of the HCR will always be the stock assessment. Changing F from 15% to 12% or 10% seems arbitrary no matter what SST index is used when there could be anywhere from 300,000 to 900,000 tons or more of biomass depending on what survey or modeling method is used. The workshop was a good exercise and the results of the simulation models are interesting but I am not convinced SST incorporation into the HCR is necessary. I would think it more prudent to maintain focus on the biomass estimates before altering the existing conservative HCR.

Best Regards,  
Ryan Kapp



June 11, 2013

Dan Wolford, Chairman  
Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland, Oregon 97220-1384

**RE: Revisions to Sardine Control Rule**

Dear Chairman Wolford,

Wild Oceans appreciates the opportunity to provide recommendations for updating the sardine harvest guideline in order to improve its performance in relation to meeting the objectives of the Coastal Pelagic Species Fishery Management Plan (CPS FMP). We are pleased that the Council dedicated resources to host a workshop to review the temperature control rule parameter in detail. Based on the workshop report and recent analyses of sardine control rule variations, we support the following revisions:

1. In the determination of **FRACTION**, use CalCOFI temperature data instead of the sea surface temperature data collected at the Scripps Institute of Oceanography, as the CalCOFI index more closely correlates with sardine recruitment.<sup>1</sup>
2. Change the **fishery start date** to July 1<sup>st</sup> to better align with the sardine assessment, so an estimate of current biomass at the start of the fishing season is used in setting the harvest specification, consistent with SSC advice.<sup>2</sup>
3. Pursue alternative methodologies that better account for **DISTRIBUTION**, other than the static .87 multiplication factor, which was established at a time when stock distribution was most likely contracted and does not take into account distribution in Canadian waters.<sup>3</sup>

---

<sup>1</sup> *Revised Analyses Related to Pacific Sardine Harvest Parameters*, Felipe Hurtado-Ferro and André E. Punt, School of Aquatic and Fishery Sciences, University of Washington, Seattle, WA. Briefing Book, June 2013, Agenda Item I.4.b Attachment 1. [http://www.pcouncil.org/wp-content/uploads/14b\\_ATT1\\_Rev\\_Sardine\\_Analyses\\_JUN2013BB.pdf](http://www.pcouncil.org/wp-content/uploads/14b_ATT1_Rev_Sardine_Analyses_JUN2013BB.pdf).

<sup>2</sup> Briefing Book, April 2013, Agenda Item I.1.b, Supplemental SSC Report. [http://www.pcouncil.org/wp-content/uploads/11b\\_SUP\\_SSC\\_APR2013BB.pdf](http://www.pcouncil.org/wp-content/uploads/11b_SUP_SSC_APR2013BB.pdf).

<sup>3</sup> PFMC. 1998. Amendment 8 to the Coastal Pelagic Species Fishery Management Plan. Appendix B, pp B-86-B-89.

4. Consider alternative **CUTOFF** values. The council should prioritize the control rule performance metric for maintaining biomass in the water to provide adequate forage for dependent predators, specifically in terms of how it measures up to National Standard 1 guidance to “manag(e) forage stocks for higher biomass than  $B_{MSY}$  to enhance and protect the marine ecosystem.”<sup>4</sup> We note that Hertado-Ferro and Punt<sup>5</sup>, in the analyses they use to evaluate alternative control rule variants, use 400,000 metric tons as a performance measure for maintaining adequate sardine biomass to serve both future productivity of the fishery and ecological services, notably forage for the California Current ecosystem. This figure, which equates to  $0.25B_0$ , already considerably below the emerging standard for minimum stock size threshold for a key forage species<sup>6</sup>, stands in stark contrast to the present CUTOFF value of 150,000 MT.

Thank you for your consideration.

Sincerely,



Pam Lyons Gromen  
Executive Director

---

<sup>4</sup> 50 CFR Part 600.310(e)(3)(iv)(C)

<sup>5</sup> See note 1.

<sup>6</sup> Smith, Anthony D.M., et al. 2011. *Impacts of Fishing Low-Trophic Level Species on Marine Ecosystems*. Science. 1209395. 21 July 2011 and Pikitch, E., Boersma, P.D., Boyd, I.L., Conover, D.O., Cury, P., Essington, T., Heppell, S.S., Houde, E.D., Mangel, M., Pauly, D., Plagányi, É., Sainsbury, K., and Steneck, R.S. 2012. *Little Fish, Big Impact: Managing a Crucial Link in Ocean Food Webs*. Lenfest Ocean Program. Washington, DC. 108 pp.