



NATIONAL COALITION FOR MARINE CONSERVATION
4 Royal Street, S.E., Leesburg, VA 20175

October 15, 2010

Mark Cedergreen, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, OR 97220

RE: Maintaining Pacific Sardine Biomass Above the B_{MSY} Level

Dear Council Members,

Throughout development of Amendment 13 to the Coastal Pelagic Species (CPS) Fishery Management Plan, the National Coalition for Marine Conservation (NCCMC) has consistently recommended evaluating the CPS harvest control rules for actively managed species as to how well they achieve the goal of maintaining adequate forage (prey) for the ecosystem (predators including many piscivorous fish, seabirds and marine mammals). And throughout this process, the council has maintained that CPS, notably Pacific sardine, are conservatively managed with respect to ecological considerations.

To support this assertion, Amendment 13 as approved by the council in June features an expanded analysis of the purpose and intent of the sardine harvest control rule (taken from the 2009 SAFE Report), explaining that it seeks “to maintain the sardine stock biomass at levels well above those of a single species MSY-based management strategy” and that the primary focus is on biomass, rather than catch, because CPS are very important to the ecosystem as forage.¹

¹ CPS SAFE Report June 2009, p. 15

The assumption, then, is that if the inputs are conservative, so then will be the outputs. But in reviewing how the sardine HCR has performed compared to an MSY-based strategy since it was implemented in 2000, we find that it has fallen considerably short of its conservative goal; a goal that was reinforced by the 2009 NMFS National Standard 1 Guidelines which recommend that, in order “to maintain adequate forage for all components of the ecosystem”, forage fish populations should be maintained above the B_{MSY} level.²

According to the stochastic simulations done by Dr. Richard Parrish in helping the council select the basis for the current sardine HCR from among a range of options, the MSY biomass was estimated to be 1,408,000 MT. As Amendment 13 reiterates, the HCR was chosen to achieve a long-term average biomass significantly above this level.

But according to Amendment 13, Table 4.3.1-4, the average sardine biomass from 2000-2010 – the biomass taken from stock assessments and used in the harvest guidelines – was 1,056,678 MT. That’s well below the MSY biomass level. Either the HCR is not performing as intended, or the simulations used to select the harvest control rule were not realistic and should be recalculated. If the council agrees that recalculations are necessary, this should be made a priority and done through the Environmental Assessment that supports implementation of Amendment 13.

In the interim, the council should utilize the precaution built into the revised HCR approved in Amendment 13, which now contains a buffer for scientific uncertainty in setting the allowable biological catch (ABC), with that uncertainty primarily being around the estimate of biomass³. The amendment also specifies that the council should include ecological considerations when reviewing and/or adopting ABCs and ACLs.

If the sardine control rule has not been effectively maintaining biomass “at levels well above those of a single species MSY-based management strategy,” as is the intent of Amendment 13 and is now national policy for forage fish, the council should:

- a) Ensure that the uncertainty buffer used in setting the ABC is sufficient to ensure adequate biomass is maintained, above the MSY level; or,

² 50 CFR § 600.310(e)(3)(iv)(C)

³ The formula generally uses the estimated biomass for the whole stock in one year (BIOMASS) to set harvest for the whole stock in the following year (H) although projections or estimates of BIOMASS, abundance index values or other data might be used instead. BIOMASS is an estimate only, it is never assumed that BIOMASS is a perfect measure of abundance. Efforts to develop a harvest formula must consider probable levels of measurement error in BIOMASS, which typically have coefficient of variations of about 50% for CPS. CPS SAFE Report June 2009 p. 16-17

- b) Reduce the annual catch limit (ACL) sufficiently below the ABC level to achieve this goal.

We will be attending the November CPS meetings and look forward to learning the council's intent at that time.

Sincerely,

A handwritten signature in black ink that reads "Ken Hinman". The signature is written in a cursive, slightly slanted style.

Ken Hinman
President

cc: Don McIsaac
Kerry Griffin
Mike Burner
Greg Krutzikowsky