

Addendum to CPSMT Report 1

Summary

The Council's Coastal Pelagic Species Management Team (CPSMT) submits this addendum to clarify two issues concerning 2011 management measures for monitored CPS stocks. The first pertains to the acceptable biological catch (ABC) for market squid. Table 1 of Agenda Item I.2.c (CPSMT Report 1) erroneously includes a market squid ABC of 245,348 mt. This value should be replaced with "F_{MSY} proxy resulting in Egg Escapement 30%," which was set in Amendment 10 to the CPS Fishery Management Plan (FMP).

The second issue pertains to the overfishing Limit (OFL)/maximum sustainable yield (MSY) proxy and ABC management benchmarks for the northern subpopulation of northern anchovy (NSNA). The CPSMT Report 1 contains background information on both species, with additional information (including suggested OFL/MSY proxy and ABCs) provided below.

Market Squid

Market squid have a less than one year life cycle, and have not been determined to be currently subject to overfishing. Therefore, market squid are exempt from annual catch limits (ACL) under National Standard 1 (NS1) guidelines. Amendment 10 to the CPS FMP established a minimum 30 percent egg escapement threshold as an F_{MSY} proxy, which is the ABC control rule. Results from egg escapement research provided general conclusions regarding this species' relatively high productivity and low vulnerability to fishing pressure, which support the above MSY-based management guidance. The CPSMT anticipates using the California state landings cap of 107,048mt (CDFG 2005) as a trigger for review of management measures for this species.

Northern Subpopulation of Northern Anchovy

The CPSMT is unable to determine an MSY proxy (equal to OFL for monitored CPS stocks) for the NSNA population because of the extremely limited information about current biomass or the variability of biomass over time. Therefore, the CPSMT does not recommend a specific OFL/MSY proxy at this time. However, the CPSMT suggests two potential OFL numbers to consider. Both are reasonable, based on the biology of the species, results of the vulnerability analysis for CPS stocks in the California Current ecosystem (Patrick et al. 2009), the relatively low recent catch for this subpopulation, and consistency with other CPS-monitored stock benchmarks.

The first is based on biomass estimates from the mid-1970s and from 2008. The midpoint of the revised biomass estimates from Richardson's work in the 1970s is 102,000 mt and the estimate from 2008 is 159,800 mt (Zwolinski et al, unpublished). Applying an 80 percent reduction (similar to other CPS stocks) to an approximate average biomass of 130,000 mt results in an OFL/MSY proxy of 26,000 mt. Applying the default monitored stock control rule (ABC=OFL*0.25) to this biomass estimate results in an ABC of 6,500 mt.

The second is based on recent catch, and assumes an ABC of 3,000. (This ABC, approximately six times the 10-year average catch and three times the 2009 catch, is a reasonable starting point.) Based on the default Harvest Control Rule for monitored stocks, this ABC would align with an OFL/MSY proxy of 12,000 mt. Regardless of the OFL/MSY proxy, the CPSMT anticipates recommending precautionary harvest specifications, at the November Council meeting.

References

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