

CALIFORNIA WETFISH PRODUCERS ASSOCIATION

Representing California's Historic Fishery

VISIT WWW.CALIFORNIAWETFISH.ORG FOR INFORMATION

October 13, 2007

Mr. Don Hansen, Chair &
Dr. Don McIsaac, Executive Director
Pacific Fishery Management Council
7700 NE Ambassador Place #200
Portland OR 97220-1384

RE: Agenda Item G.1.e : Sardine Harvest Guideline & Pacific Mackerel methodology

Dear Chairman Hansen, Dr. McIsaac and Council members,

The California Wetfish Producers Association (CWPA) represents the majority of sardine processors and active wetfish fishermen from both Monterey and southern California. We very much appreciate this opportunity, once again, to address the Council on the subject of Pacific sardine.

Gathering my thoughts for this statement, I reviewed all the comments I've submitted over the past five-plus years. I also re-examined Amendment 8, the initial CPS FMP; Amendment 10, justification for the capacity goal for California's limited entry fishery; and the Amendments approving interim and "long-term" changes in the allocation framework. My lasting impression was (again), as Yogi Berra once said, this is 'déjà vu all over again' – this is where I came in.... The comments that I submitted in 2002, as well as in 2004, 2005 and all the meetings in-between, are just as applicable today as they were when this sardine debate began.

As the CPS advisory subpanel representative on the recent sardine STAR panel, I found myself in a peculiar spot: fishermen I talked to before the STAR meeting to learn their on-the-water observations reported that the ocean was full of sardines this year. In both Monterey and San Pedro, sardines were plentiful yearlong, somewhat unusual for CA – and the fish were larger than we've seen in recent years. Pacific Northwest fishermen also reported a 'huge' biomass (albeit again mostly smaller fish) and lots of spawning going on. Yet as I've testified in the past, history has shown that this resource has plummeted dramatically and quickly in unfriendly environmental conditions – the estimated spawning stock was reduced by almost half in one year's time in the mid-1940s. (Please see the attached graph and table illustrating this point.)

Doing the math: given approximately \pm 30-year cycles of abundance over time, and the last one beginning in the mid-1970s, this cycle of abundance may be about due for a change. That said, the findings expressed in the preliminary stock assessment that the STAR panel reviewed in September came as a surprise – even to me.

After sitting through a week of sensitivity analyses that thoroughly bench-tested the new SS2 model vs. ASAP predictions, I left the meeting with two lasting impressions:

The first: the new modeling approach is far more flexible and more realistic than ASAP, and consequently better able to predict resource changes, especially if fed adequate information. The second: given the high degree of uncertainty that still exists – caused in significant part by a lack of recent biological and catch data from Mexico, the inability to date to incorporate a time-series of synoptic cruises into the model to measure the full extent and quantity of egg deposition (the primary index of spawning biomass) over the entire spawning range, and the absence of a second fishery-independent index of abundance – we still can't answer the burning question: Was this assessment an anomaly or a portent of things to come?

Both at the STAR meeting and afterward, I struggled to understand what significant changes occurred in the modeling approach this year to produce such a downturn in spawning stock biomass (SSB) and allowable biological catch (ABC). Despite his busy schedule, Dr. Kevin Hill took time to explain (his help is greatly appreciated), and I compiled the following summary:

- *the SS2 model used length-based selectivity, vs. the age-based selectivity used in ASAP*
Although the CA fishery saw a larger grade of fish in 2007 than in previous recent years, the majority of the catch still was comprised of relatively small fish both in CA and the Pacific Northwest. (Ironically, in 2006 and 2007 the average ex-vessel price in CA was higher than in the PNW.)

- *Daily egg production declined in this year's CalCOFI spring cruise, compared to 2006.*
Unfortunately the final base model run used only the 'core area' DEPM data, after examination of spawning outside this area (encompassing available Mexican and PNW egg deposition data, estimated at approx. 10% of total eggs) indicated no significant changes in modeling results. (Please see recommendation #2 below for suggestions to address this issue.)

- *Recruits per spawner (eggs counted in the adult fish) have been declining for several years, indicating declining productivity.*
This observation was reported by stock assessment scientists even as the SSB and harvest guideline (HG) estimated by ASAP increased. This fact, coupled with the continuing lack of large fish in catches, i.e. the Big Old Fat Fecund Females (BOFFF), imply that the big 1997-98 year classes that largely spawned the resurgence of the sardine industry in the Pacific Northwest may now have moved out of the fishery. Even Canada reported seeing fewer large fish and slower fishing in 2007.

- *Testing SS2 vs ASAP using the same 2006 data, SS2 projected a 2007 HG of about 120,000 mt, rather than ASAP's 152,000 mt. SS2 runs 'disappeared' about 200,000 mt of spawning biomass, which may have been 'paper fish' (or maybe not).*
As Dr. Hill explained, "SS2 provides higher estimates of the 1997 and '98 year classes and a lower estimate of the 2003 year class, relative to ASAP. There are a number of possible reasons: length-based rather than age-based fishery selectivities; more selectivity time periods to account for large-scale shifts in population distribution and availability; accounting for uncertainty in observed ages; the seasonal structure allows for more correct accounting of the spawner-recruit relationship and timing of fishing mortality..."

From my perspective, echoing a feeling shared by CA's wetfish industry, notwithstanding the constraints and uncertainties noted above, the 2008 sardine stock assessment represents the

'best available science". CWPA endorses the 2008 assessment and ABC/HG, even though it is likely to cause premature closures for the traditional sardine industry in CA in all three time periods – if fishing conditions continue in 2008 as they've gone so far in 2007. (Please see the table below for strawman seasonal allocation framework vs. 2007 preliminary regional catches.)

Nevertheless, after suffering through a near 20-year moratorium, California's wetfish industry agrees that, given the dynamic fluctuations possible in this resource, it's better to be safe than sorry. California paid dearly to recover the sardine resource, and CA's year-long wetfish industry will bear the brunt of the eventual sardine decline. **We simply do not want to repeat the history of this fishery.**

We offer the following recommendations:

- [1] The Magnuson Act now mandates setting Annual Catch Limits for all stocks to avoid overfishing. CWPA recommends establishing a tiered sardine HG for 2008:
set a directed fishery HG sufficiently below the ABC/HG approved in the 2007 stock assessment and provide an incidental catch allowance (not to exceed 40 percent by weight) to allow for incidental take in other fisheries if/when the seasonal allocation has been met.
I've asked both ODFW and CDFG to provide ballpark estimates of incidental take (for CA, that would include sardine harvested incidentally in mackerel, anchovy, market squid and perhaps other round-haul fisheries as well as any other fisheries that encounter sardine).
That number is not yet available; I hope to have it in time for the November Council meeting. In the meantime, a strawman incidental set-aside is included in the attached landings table to illustrate the point.
I intend to offer this proposal during the November CPSAS meeting, and I hope we'll be able to send a consensus recommendation from the CPSAS supporting this approach.
- [2] We ask the Council to join with the CPS industry in sending a strong message to the Secretary of Commerce and NOAA Fisheries in Washington DC, urging appropriation of sufficient funding to accomplish not only the CalCOFI synoptic cruise planned in April 2008, but also a second synoptic cruise timed for late June-July, the peak spawning period in the Pacific Northwest, to measure the extent of spawning in the Northwest as well as S.CA, then incorporate data from the full extent of the spawning range into the 2008 stock assessment.
As a second element of this request for expanded field research: we believe developing a second index of abundance is essential to provide a more accurate, more stable picture of the resource. CWPA would be happy to cooperate with the SW Fisheries Science Center and SW Region to expand knowledge of the sardine resource in California.
- [3] We request that the Council schedule a formal review of the current seasonal, coastwide 'long term' allocation formula in the fall of 2008, as indicated in the final rule for Amendment 11. The coming year should provide a serious reality-check (assuming fishing conditions are similar to 2007), testing the operation of this system in a year when a reduced harvest guideline constrains catches, most likely resulting in a derby fishery, a race for fish.

With regard to the assessment methodology for Pacific mackerel, we concur with the conclusions reached by the recent STAR panel:

"The Panel concludes that although considerable progress has been made toward implementing the Pacific mackerel assessment in SS2, it seems likely that much work remains before an acceptable model configuration will be identified. The Panel continues to support further work on an SS2-based mackerel assessment, but recommends that the assessment for mackerel (and hence the basis for management advice) continue to be based on the ASAP platform until a future STAR Panel reviews and approves an SS2-based assessment that is better and more robust than the current ASAP-based assessment.

The Panel believes that the Pacific mackerel assessment will be improved not only by exploring alternative models, but also by: a) refining the indices of abundance (which are all currently subject to considerable uncertainty), b) a more thorough review of the basic age- and length-composition data on which the analyses are based (e.g. to ensure that the length-frequency information is representative of the fishery removals), and c) modifying the SS2 modelling environment (e.g. allowing for cohort-specific growth parameters). The opinion of the Panel is that it could be possible to complete these tasks by 2009. If progress is sufficient, another mackerel Panel could be scheduled for May 2009 (so that the management advice for the 2009-10 harvest guideline could be based on a new assessment platform)."

Thus recommendation [4] : We encourage the Council to support the recommendation of the STAR panel to schedule another STAR panel for both sardine and Pacific mackerel in 2009, rather than adhering to the full three-year cycle. We would also suggest that the STAT teams be given more flexibility to adjust modeling approaches in the interim, instead of simply "turning the crank" on the model in routine updates. In that event the CPS subcommittee of the SSC could play a more important role in those interim stock assessment reviews.

Thank you again for this opportunity to comment. We appreciate your consideration of these recommendations and look forward to working with the Council to develop management measures for the sardine resource (and Pacific mackerel) that heed the lessons of the past and acknowledge the vital importance of wetfish generally, and sardine specifically, to California's historic wetfish industry.

Sincerely,



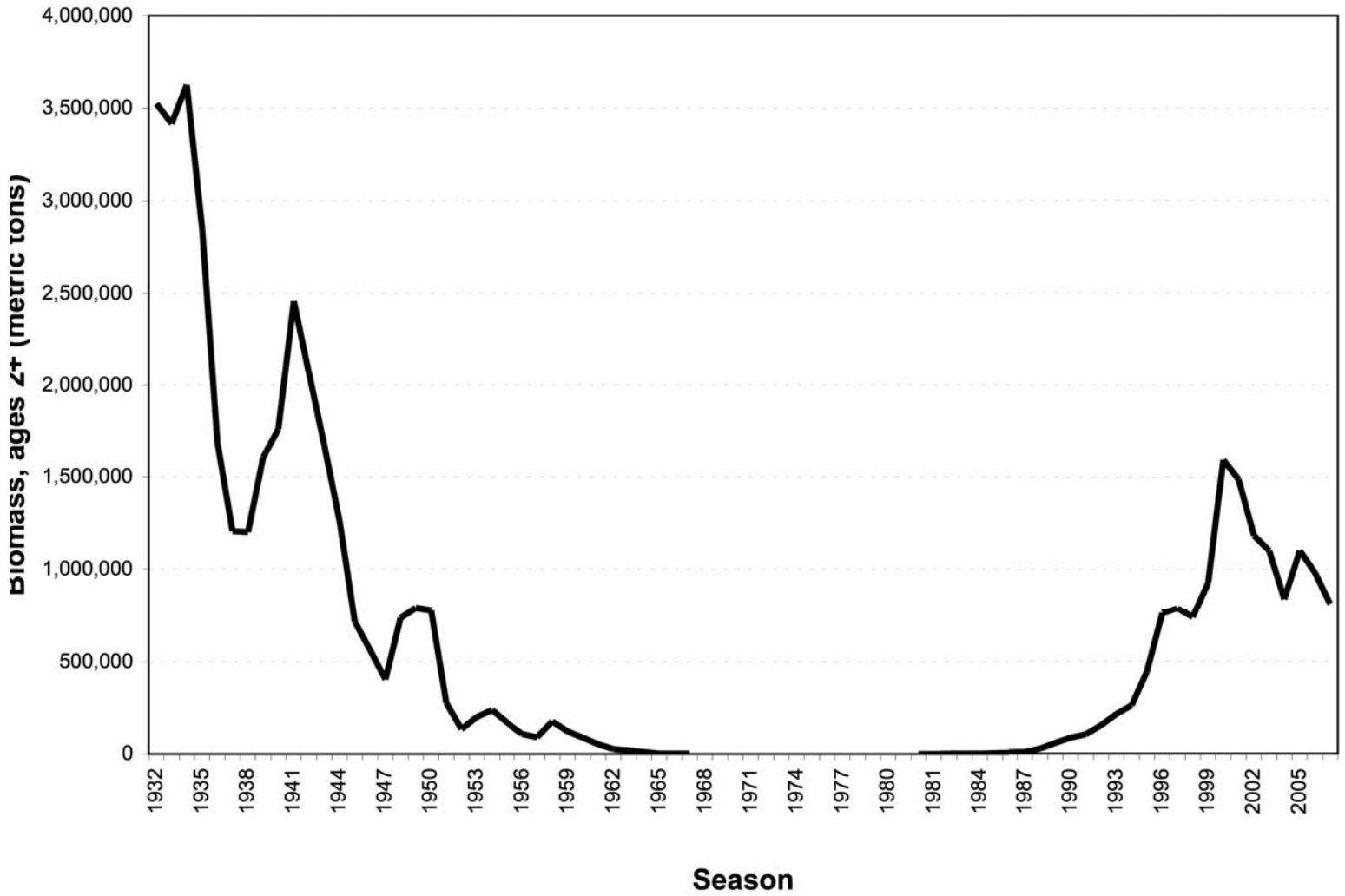
Diane Pleschner-Steele
Executive Director

Attachments:

Graph and Table of Sardine SSB (Age 2+) – Historic and recent years
Preliminary 2007 Seasonal Landings vs. Strawman Seasonal HG illustration

Pacific Sardine Spawning Biomass (age 2+) Over Time

Note: Historic sardine SSBs were estimated as age 2+. The same method was used to estimate recent year SSBs for more accurate comparison.



HISTORIC SARDINE SPAWNING BIOMASS

From Murphy (1966) and updated 1945 onward
by MacCall (1979) (metric tons)

SEASON	BIOMASS (2+)
1932	3,523,505
1933	3,414,643
1934	3,625,110
1935	2,844,931
1936	1,688,271
1937	1,206,556
1938	1,201,112
1939	1,607,531
1940	1,759,938
1941	2,457,563
1942	2,064,752
1943	1,677,384
1944	1,260,079
1945	720,000
1946	566,000
1947	405,000
1948	740,000
1949	793,000
1950	780,000
1951	277,000
1952	136,000
1953	202,000
1954	239,000
1955	170,000
1956	108,000
1957	90,000
1958	177,000
1959	122,000
1960	88,000
1961	54,000
1962	27,000
1963	21,000
1964	11,000
1965	3,000
1966	3,000
1967	3,000
1968	

RECOVERED SARDINE BIOMASS

2+ Biomass from Final SS2 Base Model
(thousand metric tons)

SEASON	BIOMASS (2+)
1981	896
1982	1,504
1983	1,769
1984	3,120
1985	3,713
1986	6,611
1987	9,710
1988	25,520
1989	58,391
1990	85,300
1991	103,008
1992	153,747
1993	213,649
1994	260,240
1995	443,182
1996	762,398
1997	788,391
1998	739,623
1999	927,364
2000	1,593,970
2001	1,490,070
2002	1,183,520
2003	1,102,920
2004	838,516
2005	1,101,420
2006	982,848
2007	811,495

PRELIMINARY 2007 LANDINGS (MT) BY AREA vs.
 2008 (**STRAWMAN**) PROJECTED SEASONAL ALLOCATION
 BY TIME BLOCK

MONTH	MONTEREY	S.CA	TOTAL CA.	OR	WA	TOTAL PNW	COASTWIDE	2008 HG*	SEASONAL
								80,100 mt	(mt)
Jan	2,994.82	4,346.23	7,341.05				7,341.05		
Feb	822.21	2,882.96	3,705.18				3,705.18		
Mar	215.34	8,472.64	8,687.98				8,687.98		
Apr	0.00	4,055.55	4,055.55				4,055.55		
May	765.16	2,890.13	3,655.29				3,655.29		
Jun	1,136.78	6,992.10	8,128.87	2,100.34			8,128.87	35%	
SubT	5,934.31	29,639.61	35,573.92	2,100.34			37,674.26	1/1-6/30	28,035
Jul	2,446.23	3,571.84	6,018.07	5,491.11	108.30	5,599.41	11,617.48		
Aug	4,244.95	2,923.38	7,168.33	18,862.30	1,837.60	20,699.90	27,868.23		
Sep1-15**			489.09	6,849.40	1,360.90	6,849.40	7,338.49	40%	
SubT			13,675.49	31,202.81	3,306.80	34,509.61	48,185.10	7/1-9/15	32,040
>Sep16				8,749.10	406.40				
Oct									
Nov									
Dec								25%	
SubT								9/16-12/31	20,025
P.SubT			49,249.41	42,052.30	3,735.70	45,788.00	95,037.41		

(through 9/21 CA, 10/10 OR, 10/5 WA)

*Note: Based on a projected ABC/HG of 89,000 mt. The HG for the directed fishery assumes a 10% set aside (8,900 mt) for incidental catches in other fisheries (not to exceed 40% sardine by weight)

** CA September CPS landings update unavailable until 10/17 -- an update will be prepared for the November PFMC meeting.