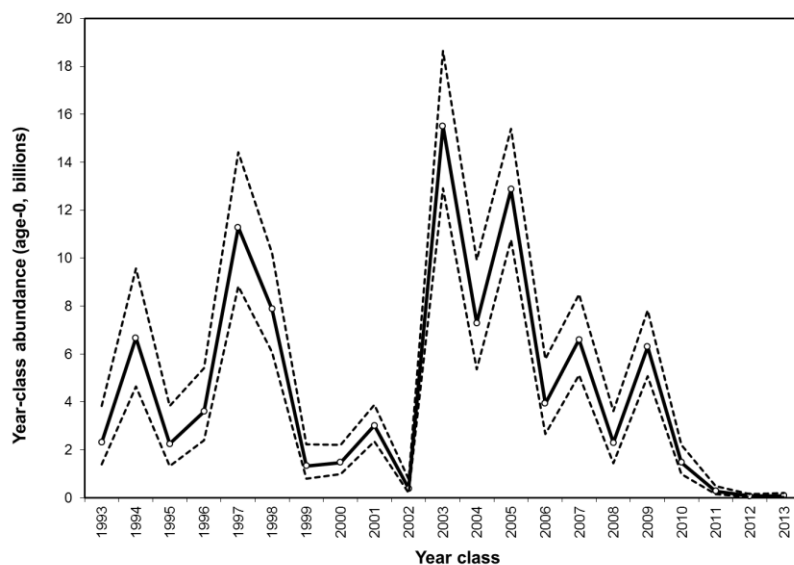


## Pacific Sardine Fishery Management – Action Summary April 2015

### **Closure of the 2014-2015 Directed Pacific Sardine Fishery**

At its April meeting, the Pacific Fishery Management Council recommended immediate closure of the directed fishery for the current fishing year (July 1, 2014 – June 30, 2015) to reduce fishery impacts on sardine. This action was taken in response to a recently discovered mistake in the 2014 Pacific sardine stock assessment. The fishery closed effective April 28, 2015.

The original 2014 assessment estimated sardine biomass at 369,500 metric tons and this was used to set the 2014-2015 harvest guideline of 23,300 metric tons. Once corrected, the assessment reduced the biomass estimate to 275,700 metric tons and the corresponding harvest guideline decreased to 13,300 metric tons. Total commercial (non-treaty directed and tribal) landings tally approximately 19,000 metric tons to date, well in excess of what would have been set for the annual quota. This action also considered the most recent 2015 assessment conducted in March that indicates a multi-year recruitment failure, meaning the Pacific sardine population is not sustaining itself. Figure 1 below shows year class abundance from 1983 through 2013.



**Figure 1. Pacific sardine recruitment trends from 1993 through 2013, adapted from Assessment of the Pacific Sardine Resource in 2015 for USA Management in 2015-2016, Hill et.al. 2015.**

### **2015-2016 Sardine Assessment and Coastal Pelagic Species (CPS) Management**

The Pacific Fishery Management Council moved in April to close the upcoming directed sardine fishery, July 1, 2015-June 30, 2016. At the same time, a catch limit of 7,000 metric tons was set aside to accommodate the live-bait fishery, the Quinault Indian Nation sardine fishery, and incidental catches in other fisheries, e.g. Pacific mackerel, market squid, and hake. Incidental catch will also be managed with per landing limits. The per landing allowance of Pacific sardine in non-CPS fisheries is 2 metric tons. The per landing allowance of sardine for CPS fisheries is linked to the

tonnage of sardine landed. Table 1 presents the Pacific sardine management accountability measures for 2015-2016.

Table 1. 2015-2016 Pacific Sardine Annual Catch Limit and Accountability Measures

<b>Annual Catch Limit</b>	
Quinault Indian Nation Live Bait CPS Fisheries Non – CPS Fisheries	<b>7,000 metric tons</b>
Incidental Sardine Allowances	Per Landing
CPS Fisheries (Mackerel, Market squid, Anchovy)	
Up to 1, 500 metric tons sardine	40%
1,500 to 4,000 metric tons sardine	30%
4,000 metric tons sardine	5%
Non-CPS fisheries (e.g. hake)	2 metric tons

The directed sardine fishery closure follows the policy established in the Coastal Pelagic Species Fishery Management Plan (FMP). The FMP uses a formula, referred to as a control rule, to determine the amount of sardine available to the U.S. fishery each year. Table 2 presents the Pacific sardine harvest guideline (HG) control rule.

The HG includes a minimum biomass threshold value or CUTOFF of 150,000 metric tons. The amount of harvest for the sardine fishery is calculated after subtracting CUTOFF from biomass, applying an environmental variable (FRACTION) and accounting for sardine caught outside U.S. waters (DISTRIBUTION). The recently completed 2015 stock assessment estimates the U.S. west coast sardine biomass to be 96,668 metric tons for the fishing year beginning July 1, 2015. Because this biomass estimate is below CUTOFF, the HG is zero.

Table 2. Pacific Sardine Harvest Guideline Control Rule Formula

<b>HG = (BIOMASS - CUTOFF) * FRACTION * DISTRIBUTION</b>	
<b>Harvest Formula Parameters:</b>	
BIOMASS (ages 1+, mt)	96,688
CUTOFF (mt)	150,000
FRACTION	0.157
DISTRIBUTION (U.S.)	0.87
<b>2015-2016 Harvest Guideline =</b>	<b>0</b>