

A different view on the state of the sardine fishery

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Reporter Anne Roth quoted me in her article last month "When will sardines return? Not any time soon say scientists." But she missed the point and certainly omitted the punch line. Here's the rest of the story.

Neil Guglielmo is one of many fishermen who told me they've seen a major increase in sardine abundance in recent years, leading up to the 2015 El Niño. In fact, independent surveys, as well as NOAA surveys, also encountered record numbers of young sardines and anchovies in 2015. The NOAA acoustic-trawl cruise caught a netload of young sardines in its trawl net that year, but when scientists included the length data from those fish into the stock assessment model, it blew up the biomass estimate to more than a million tons. Stock assessment scientists thought that was unlikely, so they omitted those data to smooth model behavior.

The 2018 assessment of 52,000 tons was an update produced by a model that changed methods and assumptions in estimating population size. This update biomass estimate, down from 86,586 tons in 2017 and 106,100 tons the year before, simply 'turned the crank' on the model and was based primarily on a single acoustic trawl survey that reached only as far south as Morro Bay and totally missed the nearshore coast-wide.

Both the model and acoustic trawl surveys have been criticized by independent experts. Scientists acknowledge that assuming acoustic surveys 'see' all the fish leads to lower biomass estimates. With different assumptions, the 2017 biomass estimate would have nearly doubled.

Acoustic trawl surveys conducted by large research vessels cannot gather data inside about 50 meters depth – 27 fathoms. But 70 percent of California's sardine catch comes from this nearshore area. A 2017 aerial survey conducted jointly by the California Department of Fish and Wildlife and the California Wetfish Producers Association (CWPA) documented tens of thousands of sardines and anchovy that were missed by the acoustic trawl. This abundance was also omitted in the sardine stock assessment.

Scientists have found that sardine abundance is driven primarily by ocean cycles with negligible impact from fishing, and overfishing is not occurring, despite what Oceana has suggested.

The article also pointed out that California sea lion pups have been washing up on beaches by the thousands since 2012, most suffering from malnutrition. But scientists acknowledge that sea lions are now at or above carrying capacity, and higher pup

mortality rates are expected, along with an increase in disease that is also apparent now. They know the sardine fishery did not cause this natural cycle.

Fishermen have been seeing an increasing abundance of sardines for the past several years, but the government is only now beginning to acknowledge that they're missing fish in their surveys and stock assessments.

CWPA and our member fishermen have offered to help NOAA document the abundance inshore of their acoustic trawl surveys. We're working cooperatively with the Department of Fish and Wildlife to validate aerial spotter pilot estimates for use in future stock assessments. But it may take years for government surveys to fully account for sardines in the nearshore, where sardines are now abundant. It's vital that we use all available scientific data to achieve proper – and accurate – management of our fisheries. The future of California's historic wetfish industry depends on it.

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