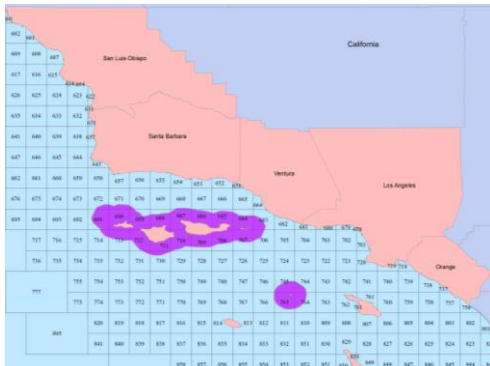


Channel Islands National Marine Sanctuary

Commercial Fisheries- Economic Summary

Economic Impact of the Commercial Fisheries on Local County Economies from Catch in the Channel Islands National Marine Sanctuary, 2010, 2011 and 2012



Map: Tony Reyer

Map of CINMS, California Department of Fish and Wildlife blocks and counties in the study area.



Channel Islands National Marine Sanctuary

Photo: CINMS

A trawling vessel operating in the CINMS.



Photo: Claire Fackler / NOAA NMS

A Purple Sea Urchin. Urchins are the second-largest grossing species from CINMS in 2012.

Introduction

This report estimated the economic impact of commercial fishing within the Channel Islands National Marine Sanctuary (CINMS) according to the California Ocean Fish Harvester Economic Model (COFEH). Estimates of harvest revenue (what the fishermen receive when they land their catch at various California ports) were converted to estimates of total output, value added, income and employment (measured in number of full and part-time jobs) using the multipliers in the COFEH Model for each county. Results are presented for years 2010, 2011, 2012 and the three-year average.

Results

Results are estimated for five counties. Analysis covered 2010, 2011, 2012 and a three-year average. This was done due to volatile fluctuation in some fisheries from year to year.

All indicators for economic impact

showed a steady decline over the study period. From 2010 to 2012, harvest revenue and output declined by almost 52%, value added declined by 58%, total income declined by almost 59% and employment decreased by over 30%.

According to the three-year average, commercial fishing in the CINMS earned over \$27 million in harvest revenue, which generated almost \$45 million in output, almost \$31 million in value added, almost \$28 million in total income and 659 full-time and part-time jobs.

The majority of this economic impact was concentrated in Ventura and Santa Barbara counties. For the three-year average, Ventura County accounted for almost 74% of harvest revenue and output, 79% of value added and income and 58% of employment. Santa Barbara County accounted for 23% of harvest revenue, 22% of output, 17% of value added, 16% of income and almost 40% of employment. Over the three-year study period, harvest revenue in Santa Barbara increased by 25%. Conversely, harvest

Definitions of Key Terms (adapted from Hackett et al 2009)

Harvest Revenue: What fishermen receive when they land their catch at various CA ports.

Output: Total industry production, equal to shipments plus net additions to inventory.

Value Added: The value added during production to all purchased intermediate goods and services. This is equal to employee compensation plus proprietor's income plus other property income plus indirect business taxes.

Total Income: Sum of employee compensation, proprietor's income, corporate income, rental income, interest and corporate transfer payments.

Employment: Full- and part-time jobs.

Summary Table of Results, 2010, 2011, 2012 and 3-year Average (2013 \$)

	2010	2011	2012	3-yr Average
Harvest Revenue	38,330,066	25,079,387	18,417,163	27,275,539
Output	64,039,777	41,638,291	30,510,606	45,396,225
Value Added	45,484,678	28,038,717	19,159,782	30,894,393
Total Income	41,367,617	25,145,688	16,996,352	27,836,552
Employment ¹	800	618	559	659
	1. Number of full and part-time jobs.			

revenues in Ventura decreased by almost 71% over the same period.

Local County Dependence on Commercial Fish Catch in the CINMS

Dependence on commercial fish catch in the CINMS was calculated as the percent of total income by place of residence and by place of work from commercial fishing. In addition, dependence was calculated as the percent of total employment in the study area from commercial fishing. Due to data limitations this analysis could only be completed for year 2010 and 2011.

In 2010, the commercial fisheries directly (and indirectly through the multiplier process) accounted for 0.007% of total income by place of work, 0.009% of the total income by place of residence and 0.01% of all jobs. In 2011, the commercial fisheries accounted for 0.02% of total

income by place of work and 0.03% of total income by place of residence and 0.009% of jobs in the seven-county study area.

The percent of income by place of residence from commercial fishing in the CINMS ranged from a low of 0% in Orange County in 2010 to a high of 0.4% in Ventura County in 2011. As a percent of total income by place of work, commercial fishing ranged from a low of 0% in Orange County in 2010 to a high of 0.67% in Ventura County in 2011. Employment accounted for from commercial fishing in the CINMS ranged from a low of 0% in Orange County in 2010 to a high of 0.13% in Ventura (2010) and Santa Barbara (2011) counties.

Methods

For commercial fishing data, the California Department of Fish and Wildlife (CDFW) California Fishing Information System

(CFIS) landings receipts database was used for years 2000 through 2012 (CDFW-CFIS 2013). The CDFW-CFIS contains daily landings by CDFW 10-minute by 10-minute blocks where the catch was made and by port and county where landed. Pounds and value of catch (revenue received by the fishermen) are also reported by species, gear used, and condition of catch when landed (e.g. live, dressed heads off, etc.).

For the economic model, the California Ocean Fish Harvester Economic (COEFH) Model (Hackett et al 2009) was used. This model is based on a survey of the commercial fishing industry to obtain cost-and-earnings by 20 "Operational Categories" or OCs. The OCs are key to the economic impact analyses. OCs are combinations of species, gear type, catch condition, and vessel length. Each OC has its own cost function and multipliers derived from the IMPLAN Input-Output Model.

More Information

The full report can be access online at: http://sanctuaries.noaa.gov/science/conservation/pdfs/cinms_fishing_report.pdf

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Photo: Shane Anderson

A California Spiny Lobster.



Photo: Shane Anderson

A Brown Pelican (*Pelecanus occidentalis*), rests in the CINMS.