

An analysis of rockfish landings associated with commercial salmon troll fishery off California

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Data & Analysis (1 of 2)

- Data:
 - Landing Receipts (1997-2005)
 - California Cooperative Survey (Port Sampling)
- Trip: all landings by a given boat on a given day
 - accounts for many but not all split trips (catches from same trip might be landed on different days)
- 'Salmon trip': a trip on which salmon were landed, regardless of whether salmon were main catch

Data & Analysis (2 of 2)

- 99% of all salmon landed by troll
 - trips with landings based on all other gear types dropped from analysis
- 99.9% of all salmon landings in 'Chinook salmon' market category
 - trips with landings based on all other market categories dropped from analysis
- Compiled associated landings in all rockfish market categories
- Stratified by port complex
 - Crescent City, Eureka, Fort Bragg, Bodega Bay, San Francisco, Monterey, Morro Bay, and Santa Barbara

Commercial Salmon Troll-Associated Rockfish Landings (CSTARL)

Port Complex	Rockfish (lbs)	Number of Salmon Trips	Bycatch Rate (lbs rockfish/trip)
Crescent City	579	516	1.12
Eureka	2,999	2,715	1.10
Fort Bragg	17,442	8,428	2.07
Bodega Bay	45,415	15,597	2.91
San Francisco	55,391	21,169	2.62
Monterey	27,041	25,742	1.05
Morro Bay	35,446	4,423	8.01
Santa Barbara	1,645	516	3.19
Combined	185,958	79,106	2.35

Mean CSTARL <3 lbs/trip in port complexes within study area over entire period 1997-2005

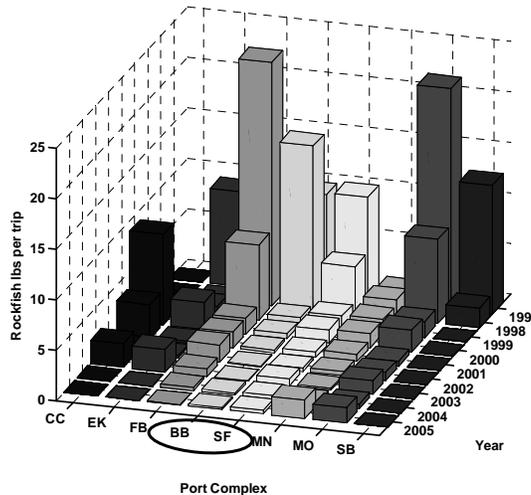
CSTARL: weight per trip

Rockfish landings associated with salmon troll fishery have been very low throughout the early 2000's

Bodega: ~0.2 lbs/trip

San Francisco: ~0.6 lbs/trip

Data do not discern whether trend is due to change in frequency of split tickets or change in rate of at-sea discards.

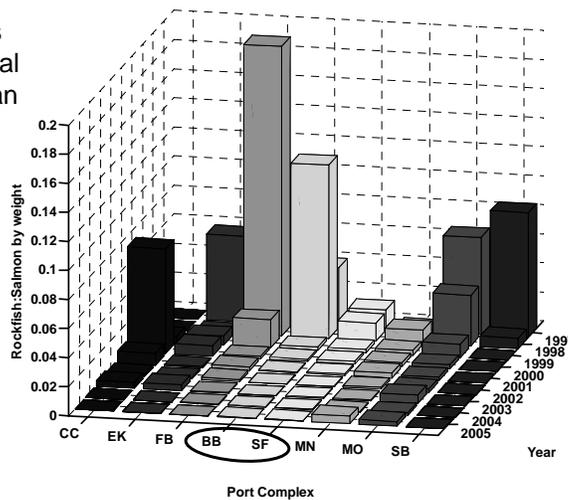


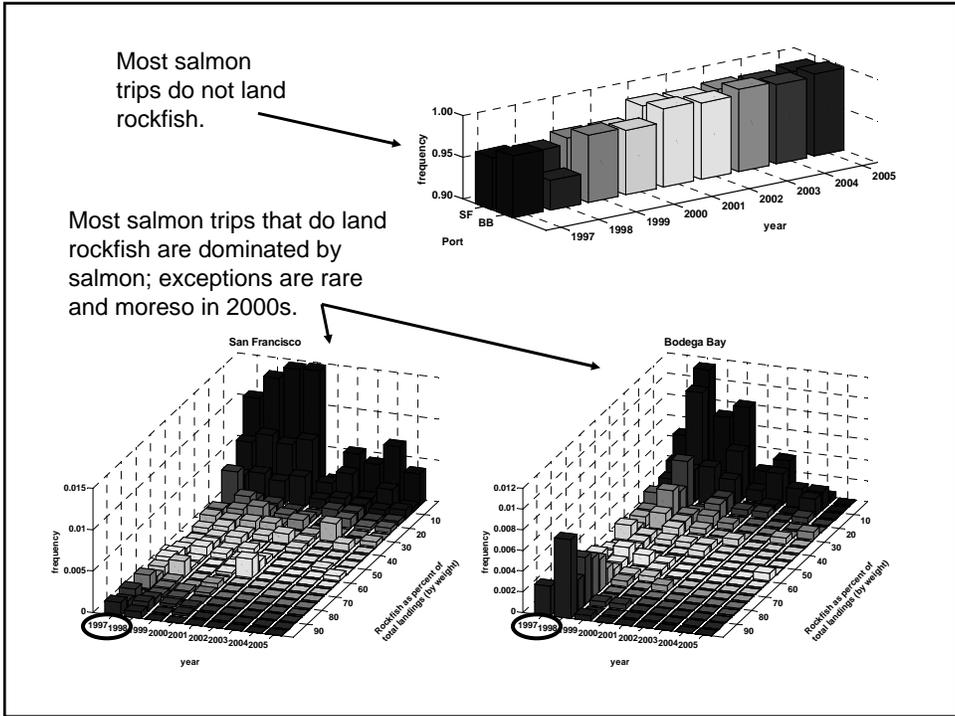
CSTARL as portion of trip landings

Weight:weight comparisons also indicate that commercial salmon troll fishery is a clean fishery—especially in early 2000s.

Bodega:
R:S ~0.0005

San Francisco:
R:S ~0.0007



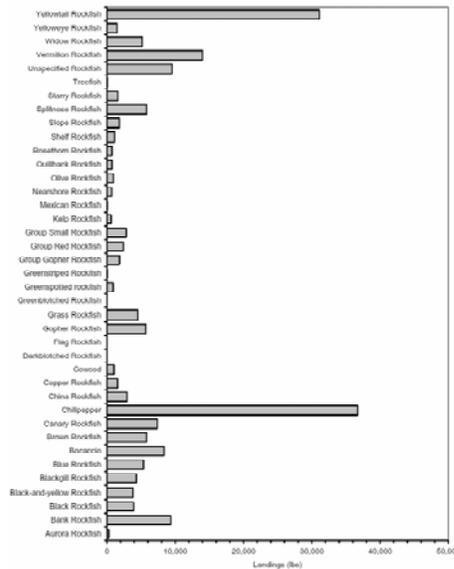


CSTARL: Species Composition

Yellowtail rockfish and chilipepper were largest components of landings associated with salmon troll fishery (~17% each).

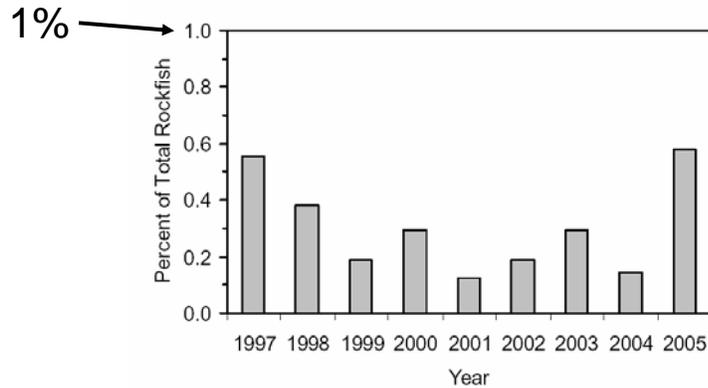
Most other species represent between 0.5% to 5% of total CSTARL.

Species vary in likely susceptibility to commercial salmon trolling gear.



CSTARL v. Total RL

Salmon Troll Rockfish as a Percent of Total Rockfish



- Rockfish landings associated with commercial salmon troll fishery are very small component of total rockfish landings.

Closing thoughts

- Overall CSTARL is very small, regardless of metric (e.g., weight/trip, RF:Salmon, CSTARL:TRL)
- Trips with positive CSTARL are rare
- CSTARL dominated by two species: yellowtail and chilipepper
- Rockfish species' susceptibility to trolling gear should be considered in evaluating species-specific consequences of commercial salmon trolling
- Tightening rockfish regulations might contribute to trend of declining CSTARL from 1990s to 2000s