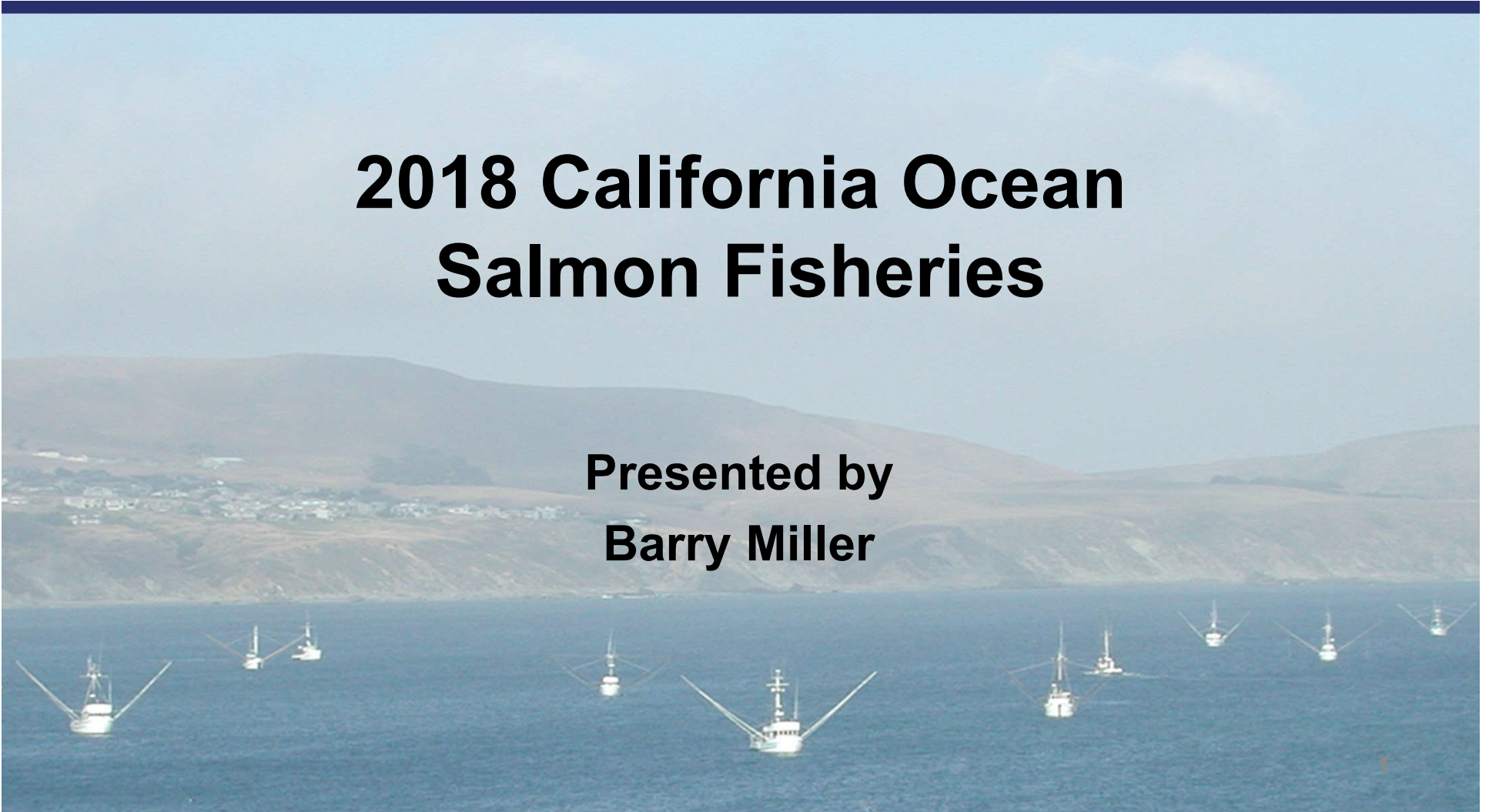




Department of Fish and Wildlife Ocean Salmon Project

2018 California Ocean Salmon Fisheries

**Presented by
Barry Miller**



Ocean Salmon Project Objectives

1. Estimate ocean salmon catch & fishing effort in CA for each management area by half month periods for both recreational and commercial fisheries
2. Determine the contribution rates of specific salmon stocks by fishery, time, and management area using coded-wire tag recoveries



Recreational Salmon Fishery



2018 California Recreational Season

Klamath Management Zone: OR/CA Border to Horse Mt. (95 days)

Jun 1		Sep 3
-------	--	-------

Fort Bragg: Horse Mt. to Pt. Arena (137 days)

Jun 17		Oct 31
--------	--	--------

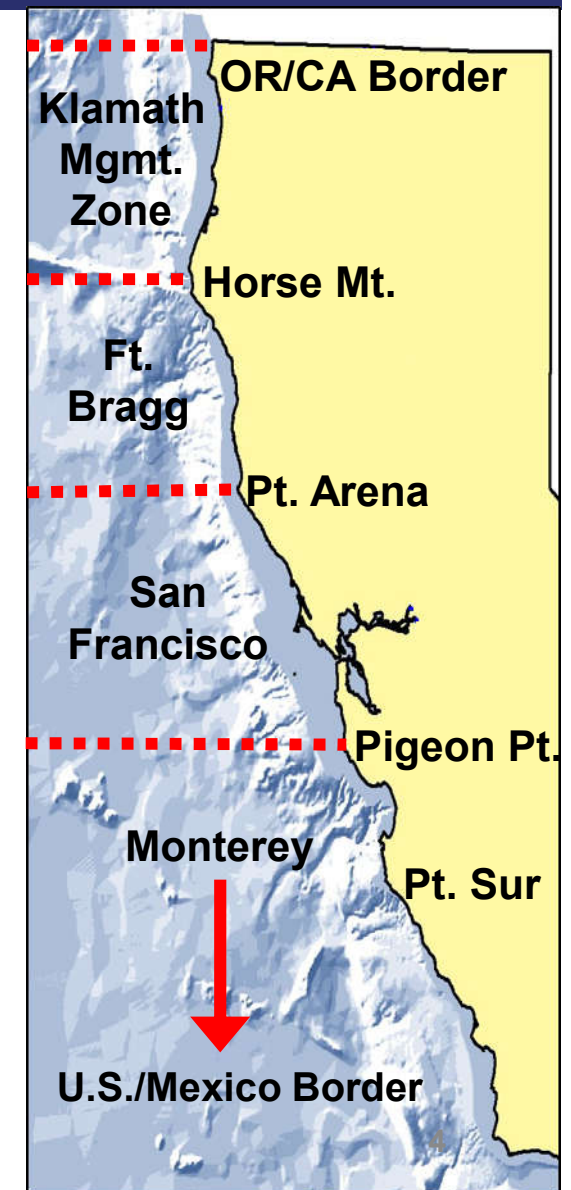
San Francisco: Pt. Arena to Pigeon Pt. (137 days)

Jun 17		Oct 31
--------	--	--------

Monterey and south: Pigeon Pt. to U.S./Mexico Border (87 days)

Apr 7		Jul 2
-------	--	-------

Minimum size: 20" north of Pigeon Pt.
Minimum size: 24" south of Pigeon Pt.
Bag limit: 2 fish per day



Sample Design – Private Skiff Fishery

- Sampling unit: skiff day (all skiff trips made at a sample site for an entire day)
- CRFS samples $\geq 20\%$ of all skiff days in each management area and period
 - 17 primary salmon skiff sample sites
 - Average 7 sample days per month at each site
 - 409 skiff days were sampled during the 2018 ocean salmon season
 - Random stratified sampling design using weekday and weekend/holiday strata
- Samplers observe, identify to species, and count all salmon landed
- Each salmon inspected for missing adipose fin
- Adipose fin-clipped salmon are set aside and the heads are collected for coded-wire tag extraction

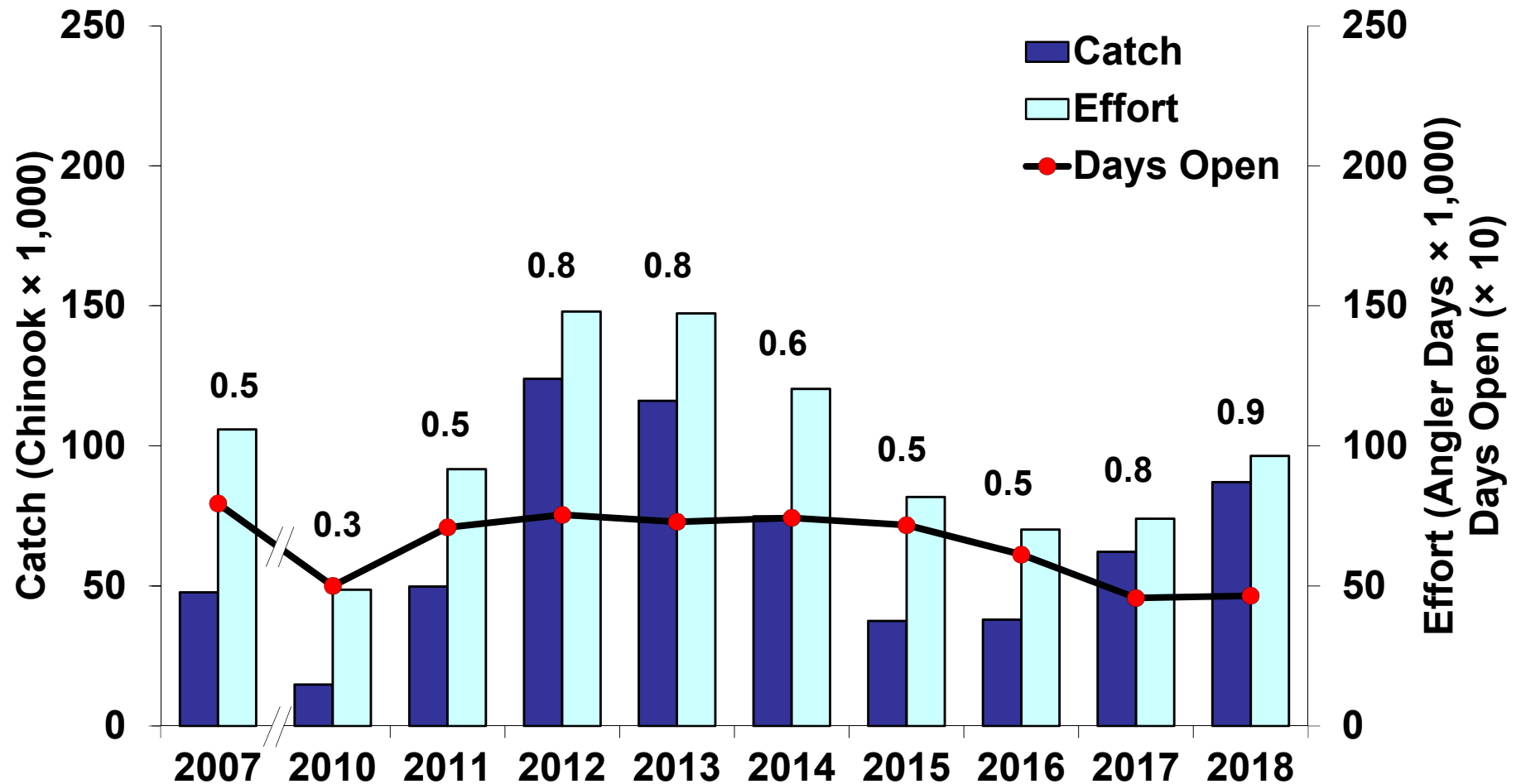


Sample Design – CPFV Fishery

- Sampling unit: each CPFV trip
- Sample $\geq 20\%$ of all salmon-targeting CPFV trips in each management area and period
 - 16 primary salmon CPFV sample sites
 - 125 CPFVs participated in the 2018 ocean salmon fishery
 - 1,340 salmon-targeting CPFV trips were sampled during the 2018 ocean salmon season
- Samplers observe, identify to species, and count all salmon landed
- Each salmon inspected for missing adipose fin
- Adipose fin-clipped salmon are set aside and the heads are collected for coded-wire tag extraction

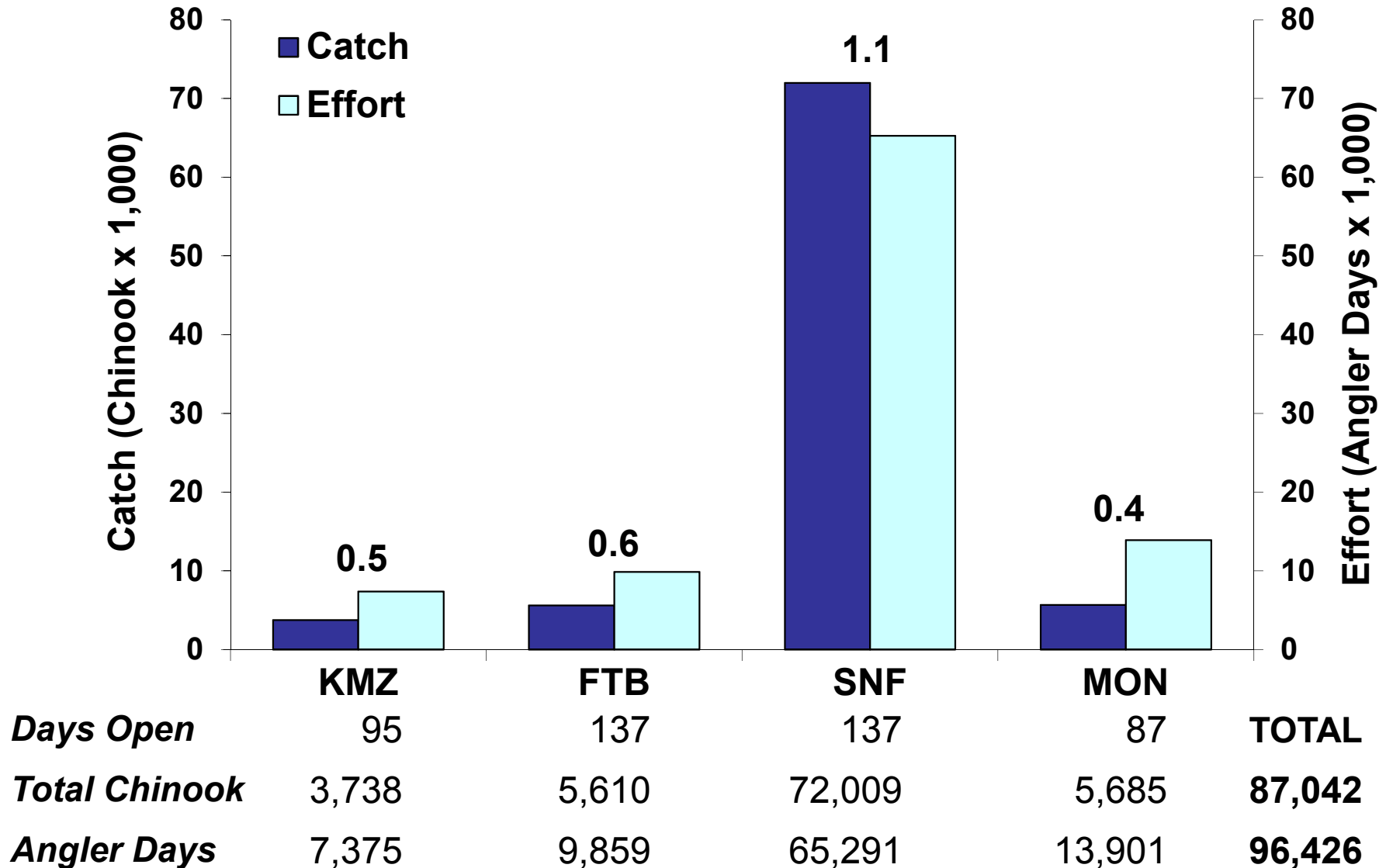


Recreational Catch and Effort, 2007-2018



Days Open = All four management areas combined (Monterey treated as one area)

2018 Recreational Catch and Effort by Management Area





Commercial Salmon Fishery

2018 California Commercial Season

Klamath Mgmt. Zone: OR/CA Border to Humboldt S. Jetty (87 days)

	May	Jun	Jul	Aug	
	1 29	1 30	1 31	3 31	
Quota =	3,600	6,650	6,612	9,423	

Fort Bragg: Horse Mt. to Pt. Arena (63 days)

	Jul 26		Sep 30
--	--------	--	--------

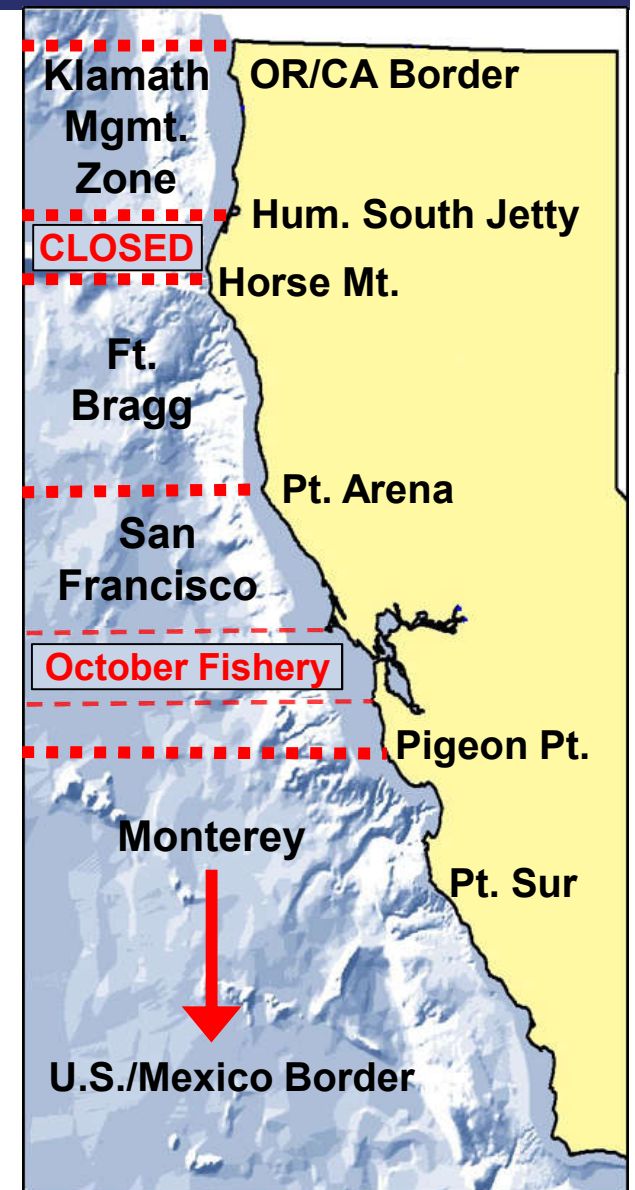
San Francisco: Pt. Arena to Pigeon Pt. (73 days)

	Jul 26		* Oct 12
--	--------	--	----------

Monterey: Pigeon Pt. to U.S./Mexico Border (19 days)

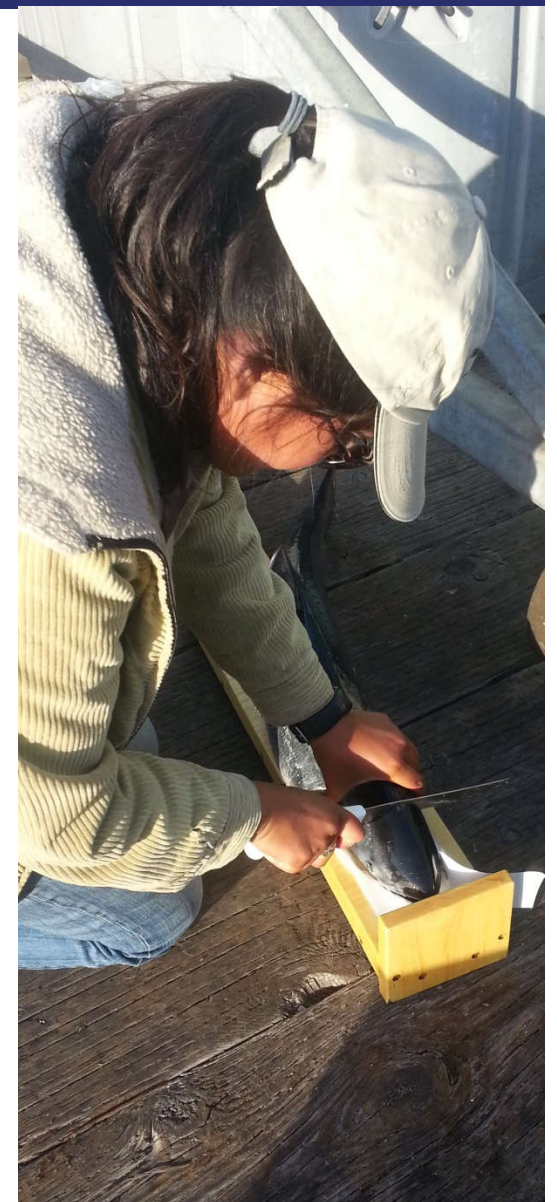
May 1-7		June 19-30
---------	--	------------

* Oct 1-12 fishery: Open Mon-Fri from Pt. Reyes to Pt. San Pedro
Minimum size 26"

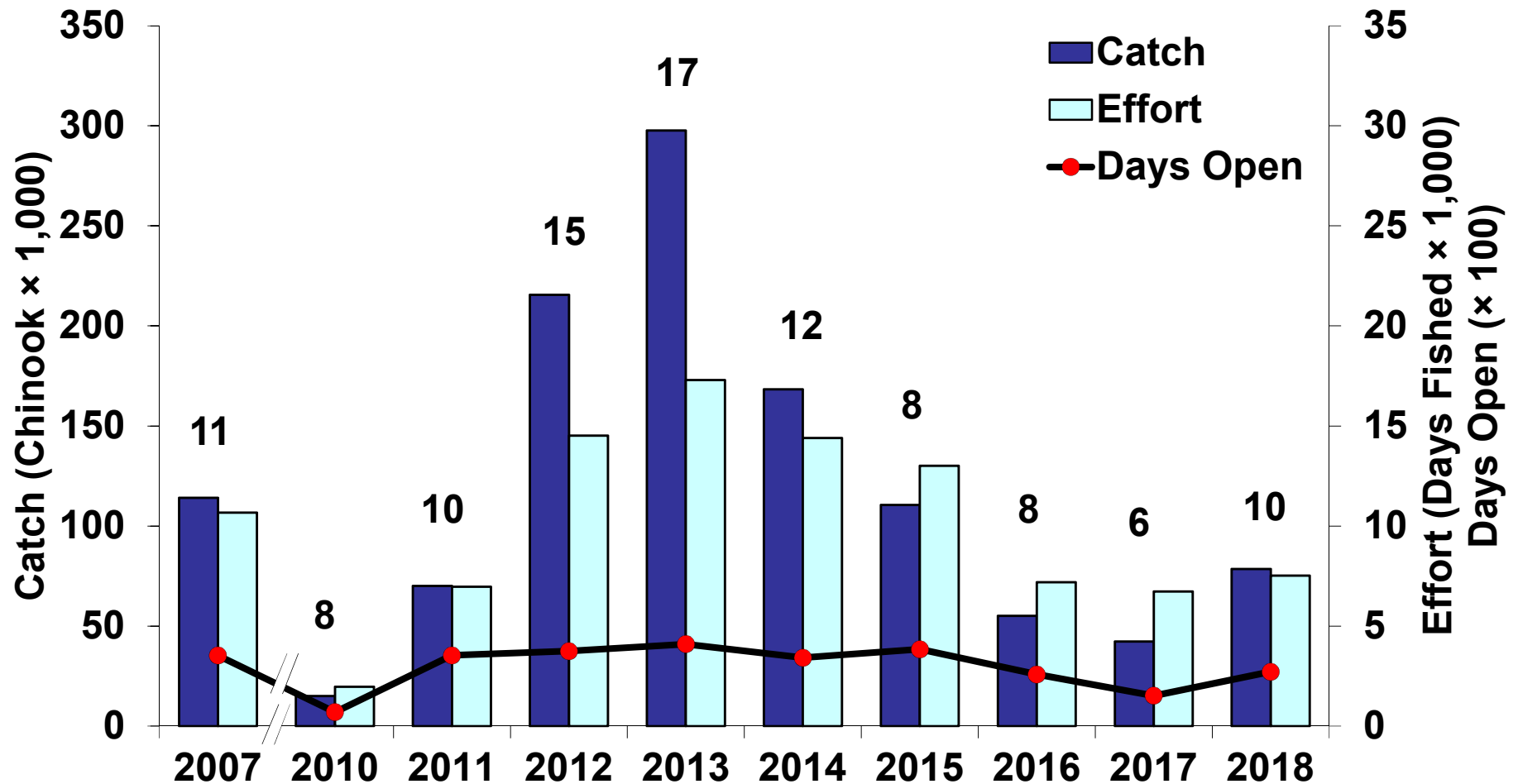


Sample Design – Commercial Fishery

- Sampling unit: each commercial landing
- Sample $\geq 20\%$ of all commercial landings by weight in each management area and period
- Samplers observe, identify to species, and count all salmon being offloaded
- Each salmon inspected for missing adipose fin
- Adipose fin-clipped salmon are set aside and the snouts are collected for coded-wire tag extraction

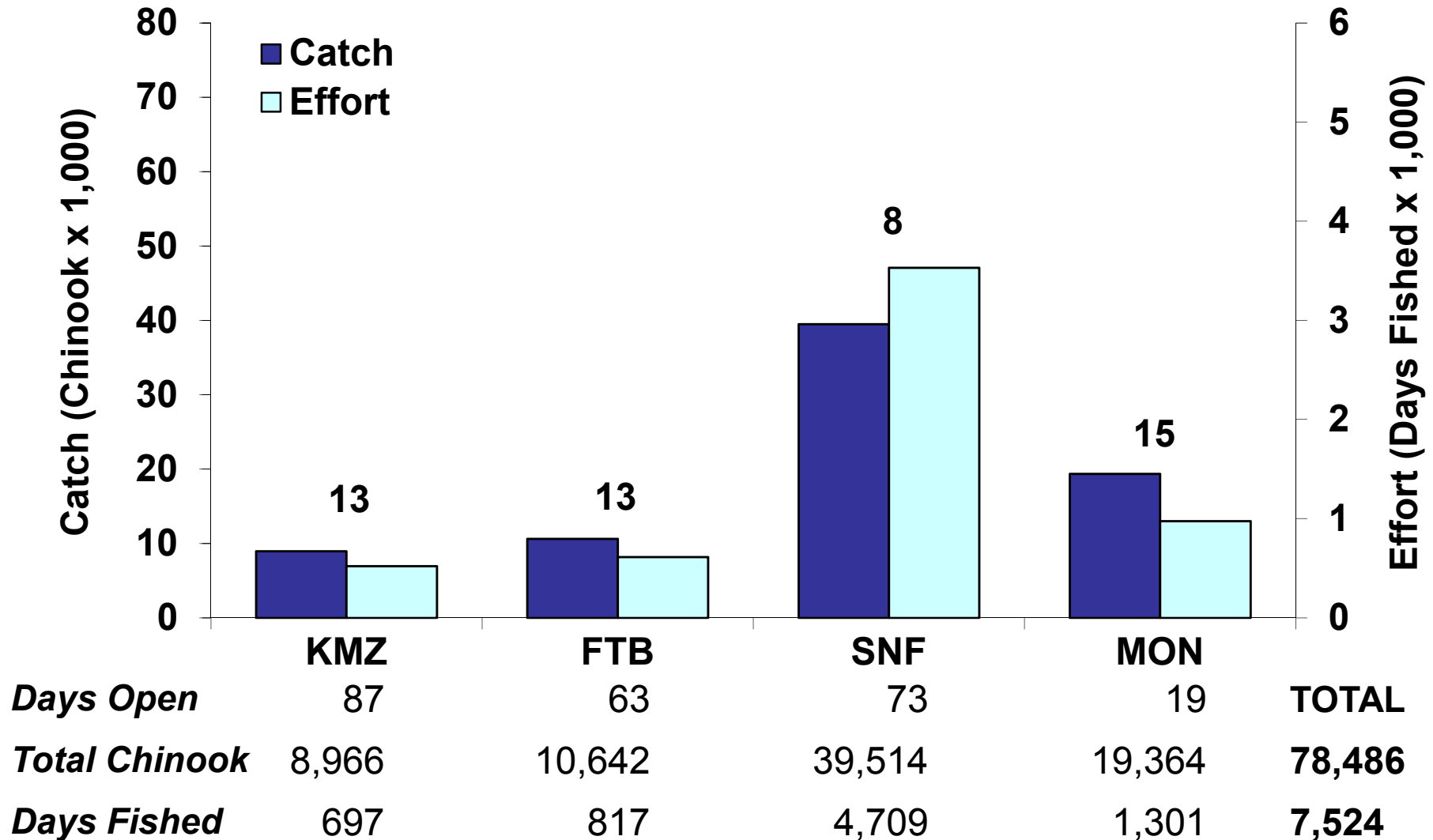


Commercial Catch and Effort, 2007-2018

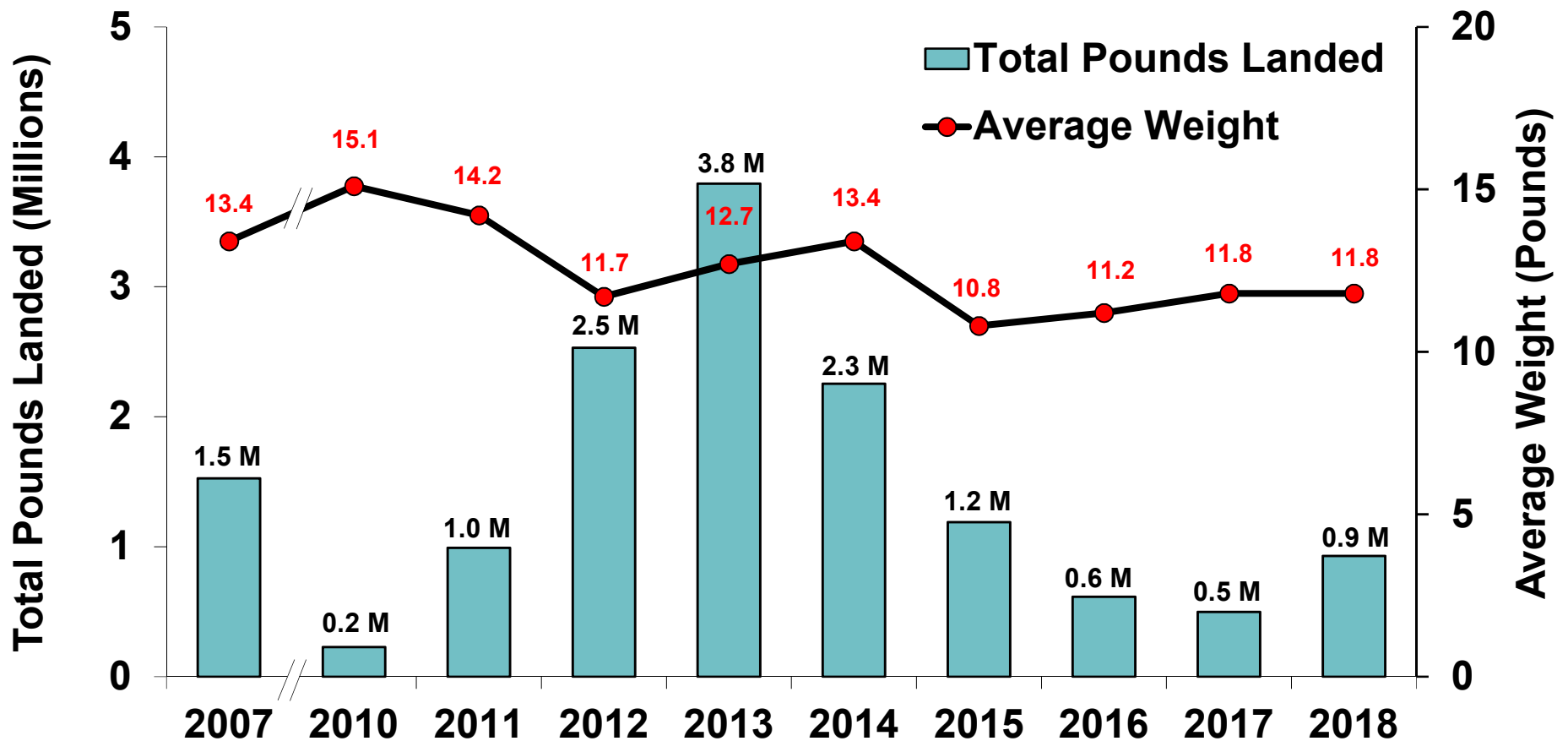


Days Open = All four management areas combined (Monterey treated as one area)

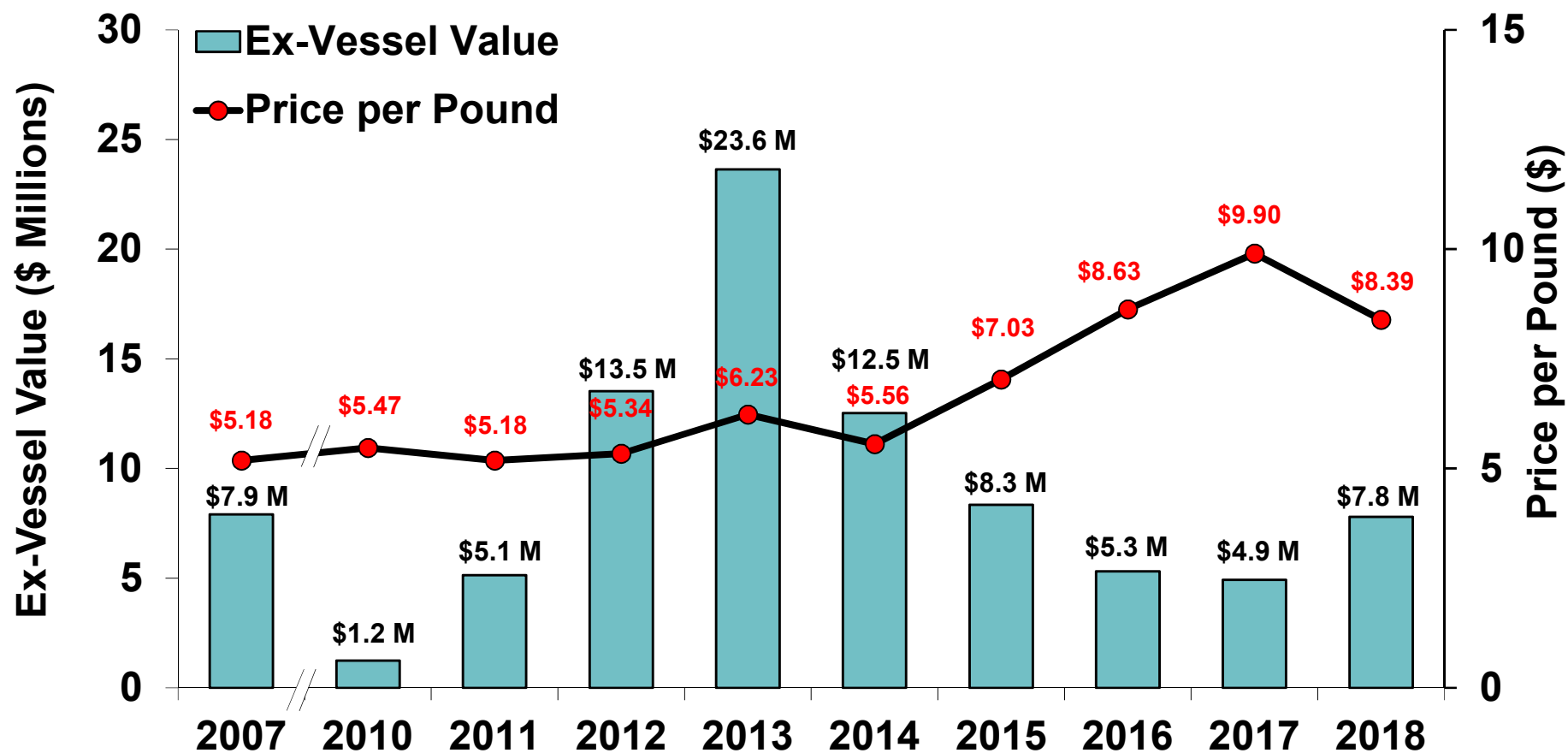
2018 Commercial Catch and Effort by Management Area



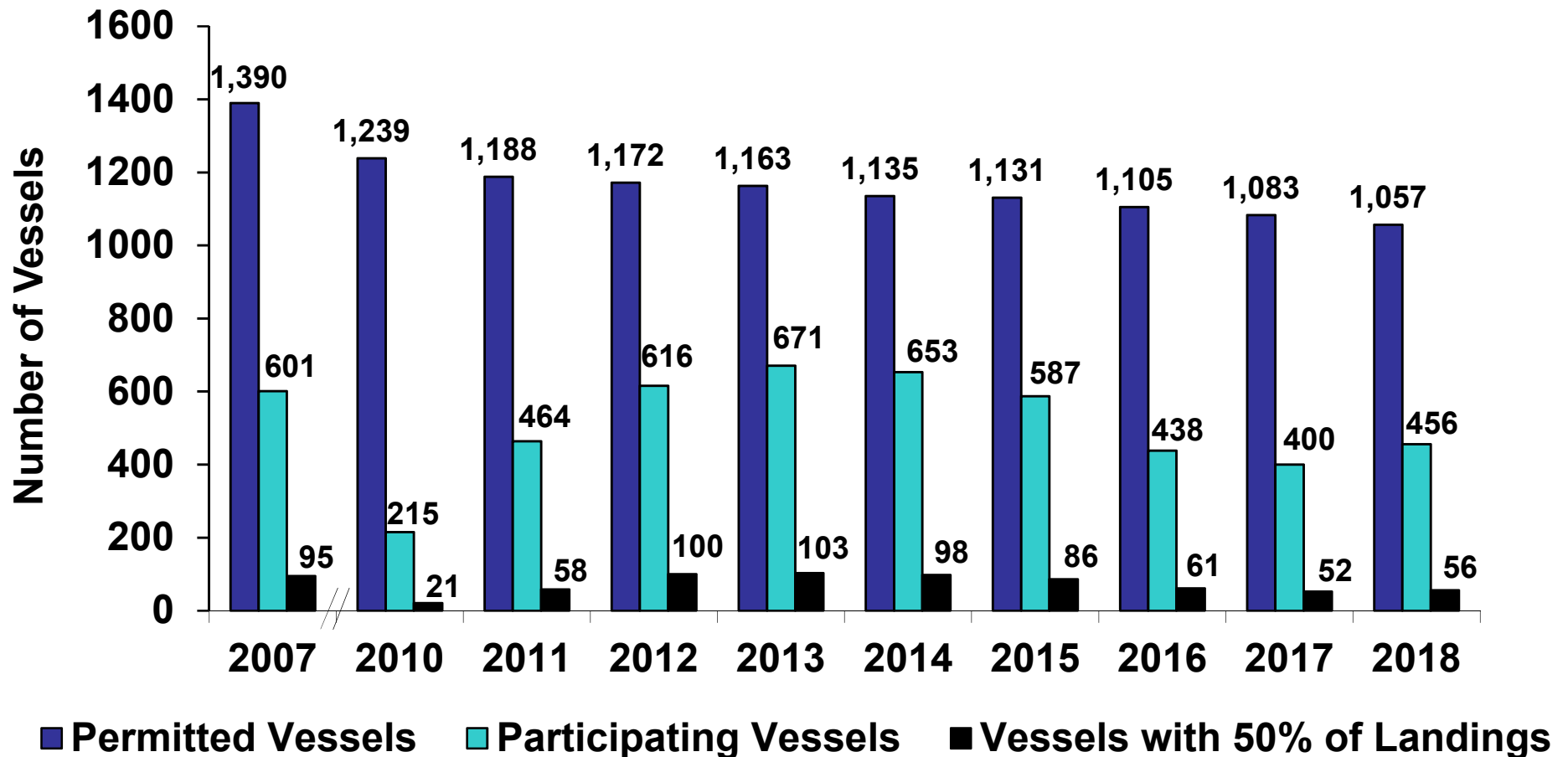
Total Commercial Pounds Landed and Average Weight, 2007-2018



Commercial Ex-Vessel Value and Price per Pound, 2007-2018

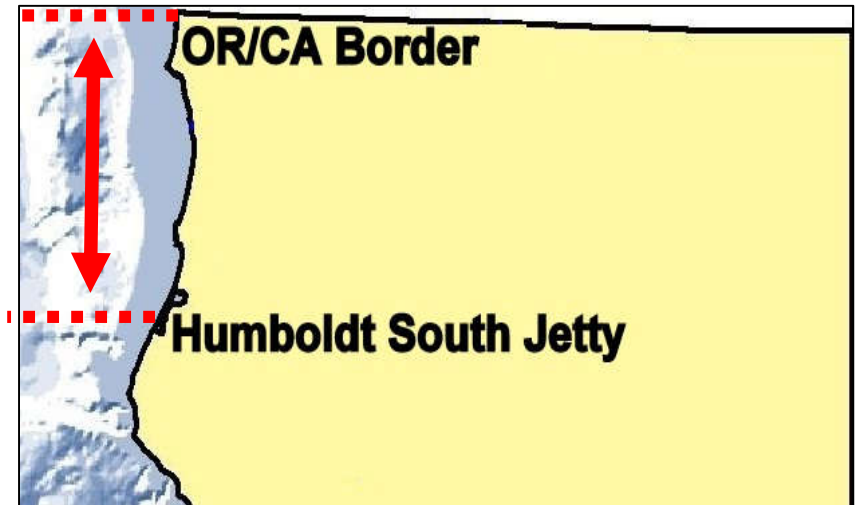


Number of Vessels with Landings Compared to Permitted Vessels, 2007-2018



2018 KMZ Quota Fisheries

- Open 5 days/week (Fri.-Tue.)
- Total boats participating: **85**
- Average weight: **9.5 lbs** (state avg. = 11.7)
- Ex-vessel value: **\$716,400**
- Average price/lb: **\$8.42** (state avg. = \$8.13)



	May 1-29	June 1-30	July 1-31	August 3-31
Quota	3,600	6,650* Preseason = 4,000	6,612* Preseason = 4,000	9,423* Preseason = 4,000
Catch (% of quota)	938 (26%)	2,477 (37%)	1,774 (27%)	3,777 (40%)
Landing Limit	20	20	20, 40**	50
Total Participants	46	58	37	47

*Includes rollover from previous month

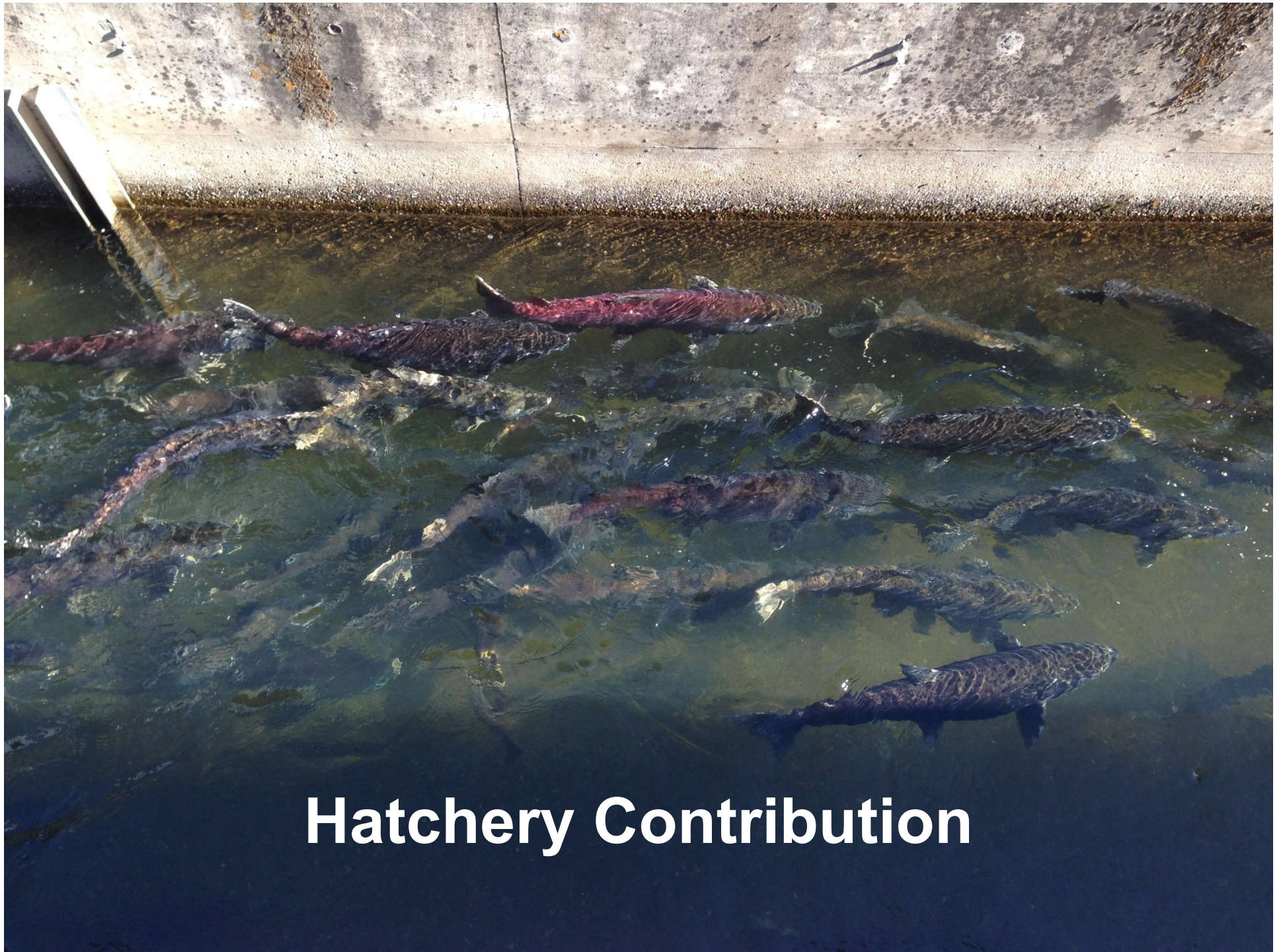
**Effective July 20

2018 Fall Ocean Fisheries Impacts on Age-4 Klamath River Fall Chinook

Area	Recreational	Commercial
Northern Oregon	31	85
Coos Bay	0	0
KMZ - Oregon	0	0
KMZ - California	0	-
Fort Bragg	0	44
San Francisco	0	0
Monterey	-	-
Total	31	129

**0.2% age-4 ocean harvest rate in fall fisheries,
which will be deducted from the 16% allowable
ocean harvest rate when determining the 2019
season structure**

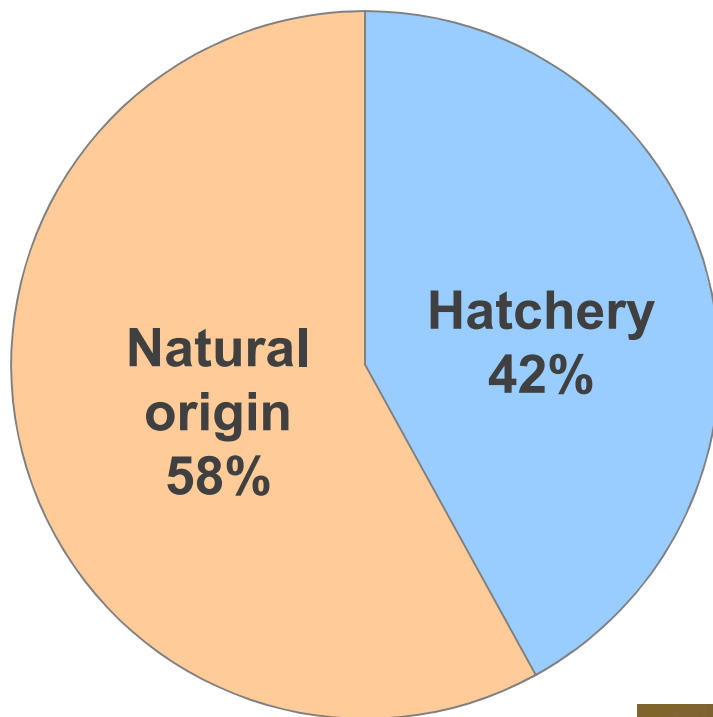




Hatchery Contribution

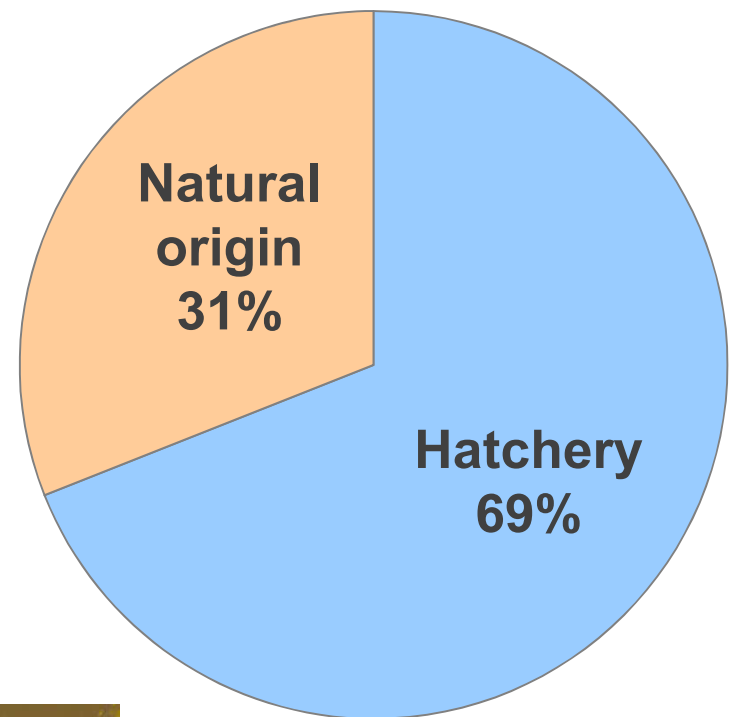
Hatchery Contribution to 2018 CA Ocean Fisheries

Recreational



N = 4,103 CWTs

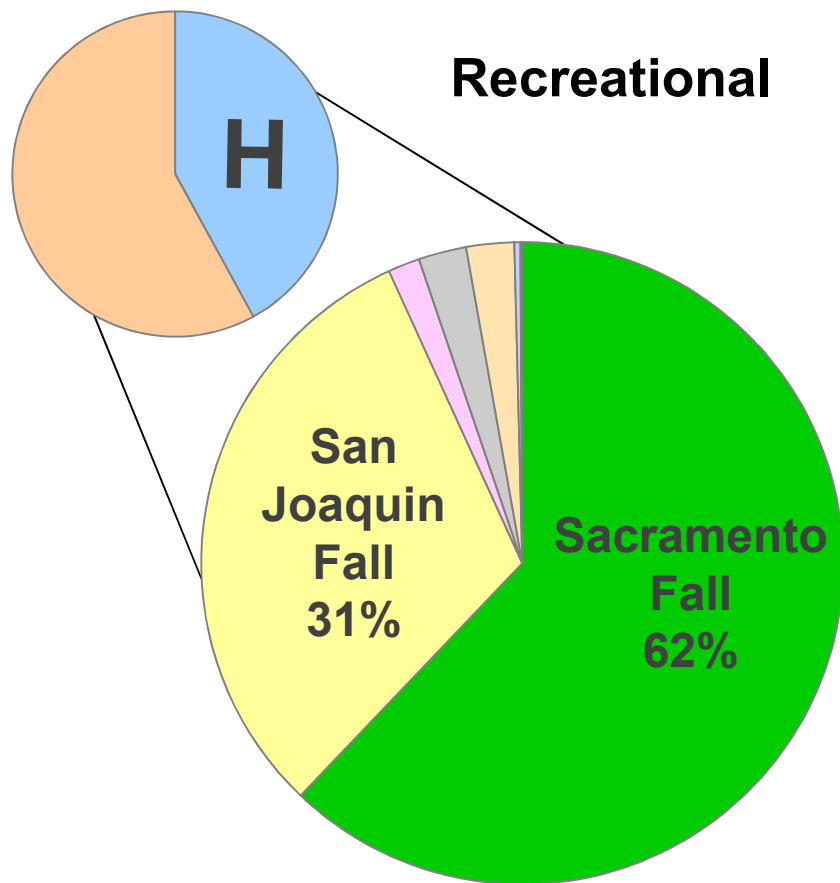
Commercial



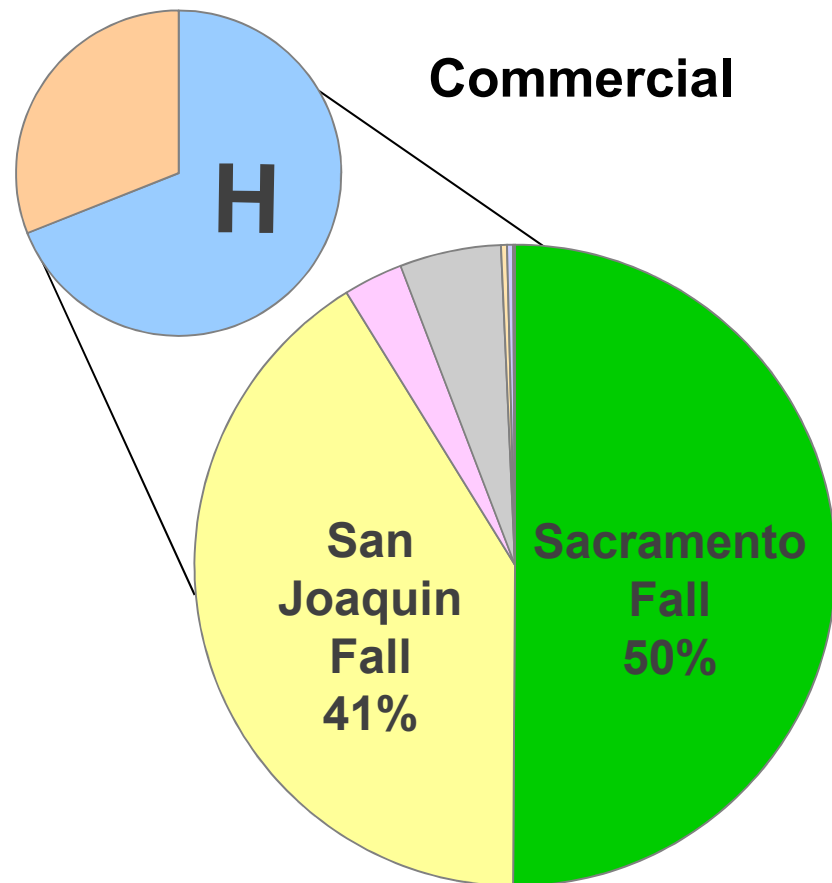
N = 6,815 CWTs



Hatchery Contribution to 2018 CA Ocean Fisheries



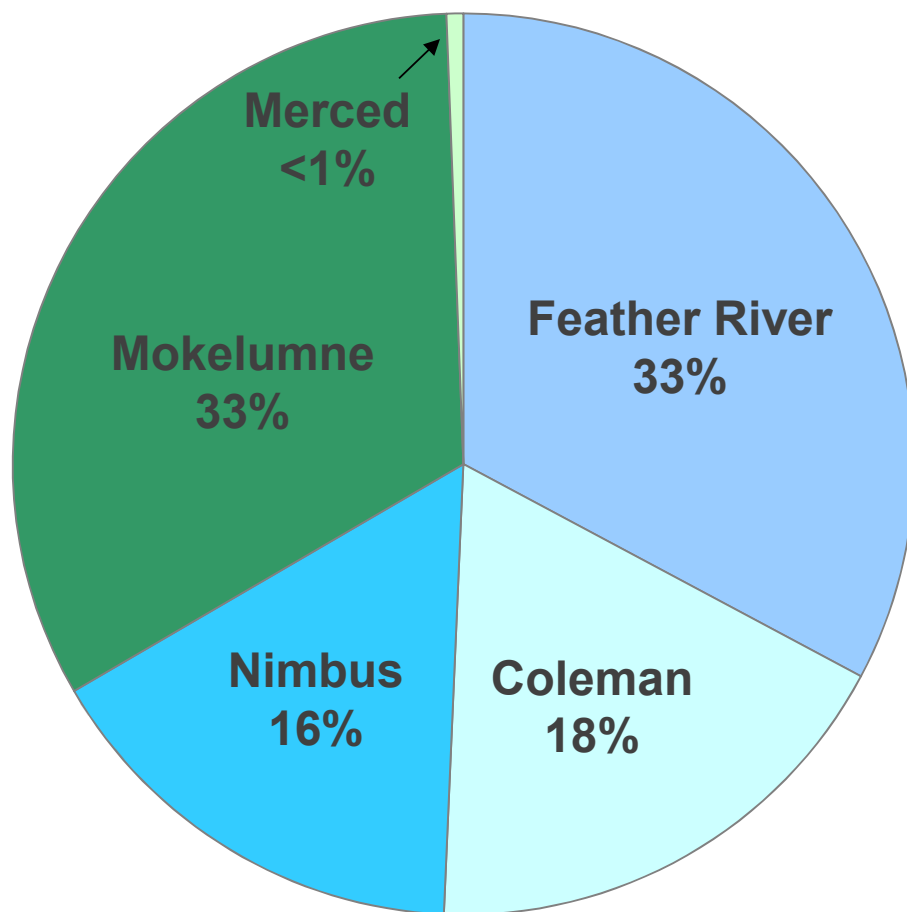
≈7% Other Stocks:
CV Late-Fall (2.4%), CV Spring (2.4%),
Klamath River Fall (1.6%),
Sacramento Winter (0.3%), Other (<.01%)



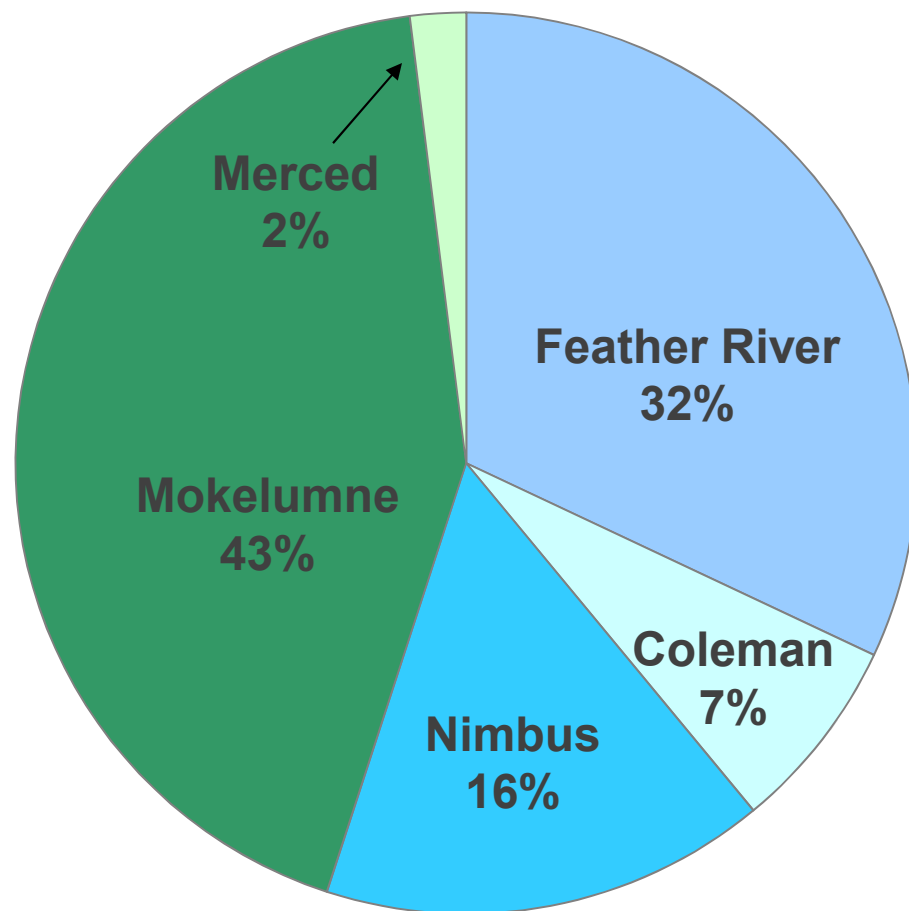
≈9% Other Stocks:
CV Late-Fall (5.1%), Klamath River Fall (3%),
CV Spring (.3%),
Sacramento Winter (0.3%), Other (0.1%)

Hatchery Contribution to 2018 CA Ocean Fisheries

**Recreational
Central Valley fall Chinook**



**Commercial
Central Valley fall Chinook**





Department of Fish and Wildlife Ocean Salmon Project

Thank You



Barry Miller
Environmental Scientist
Barry.Miller@wildlife.ca.gov