



Washington Department of
FISH and WILDLIFE

Recreational Crab & Shrimp Advisory Committee Meeting

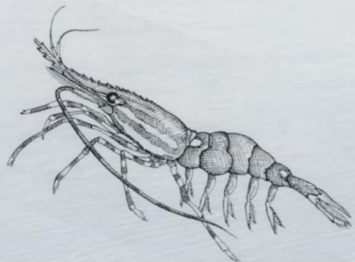
April 18, 2023

1:00 pm – 3:00 pm

Meeting Topics

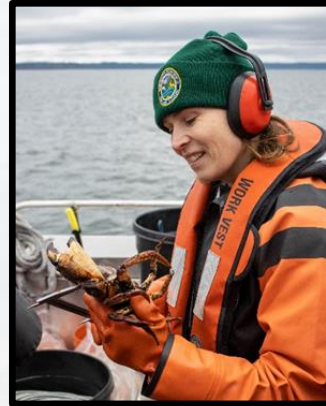
Introductions (15 min)

- **Co-management and Policy** (15 min)
- **Roles and Responsibilities** (15 min)
- **Crab Topics** (20 min)
 - 2022 Season Review
 - 2023 Season Planning
- **Shrimp Topics** (20 min)
 - 2022 Season Review
 - 2023 Seasons Announced
- **Challenges into the Future** (20 min)
- **Advisor Input, Comments, and Ideas** (10 + min)



Staff Introductions

Katelyn Bosley
Puget Sound Crustacean Lead
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katelyn.bosley@dfw.wa.gov



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Scientific Technician 3
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Daniel Sund
Commercial Crustacean Biologist
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Committee Member Introductions

- 1) Where are you from?
- 2) One reason you wanted to be a member of the RCSAC



Recreational Crab and Shrimp Advisory Committee

‘The RCSAC is a volunteer group that provides a forum for discussion of issues relevant to the recreational crab and shrimp fisheries within Puget Sound. The purpose of the RCSAC is to develop recommendations to help WDFW achieve the overall mission and management objectives for the Puget Sound crab and shrimp fisheries.’



Roles and Responsibilities

- **Provide advice and information to WDFW staff on relevant management issues including:**
 - Gear and seasons for crab and shrimp
 - Ideas to maintain and improve the State's recreational fisheries
 - Condition of the resource
 - Proposed or needed legislation or regulation changes
- **Work with department staff and advisors to resolve management issues and problems in a timely manner.**
- **Represent the interest of the majority of fishers in your area.**
- **Communicate to the department staff special issues or resource concerns that occur between meetings.**
- **Communicate to fishers in your area information from the department and from advisory group meetings, regulatory or legislative proposals, special agency needs, etc.**
- **Serve as the department's primary contact person in your area.**
- **Attend advisory committee meetings and appropriate Fish and Wildlife Commission meetings.**

Co-management and Policy

- Rafeedie Decision (1994)
 - Treaty Tribes reserve right to 50% of harvestable surplus of all shellfish
 - Shellfish Implementation Plan (SIP)
 - *Regional Management Plans*

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WESTERN DISTRICT OF WASHINGTON

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AT SEATTLE
CLERK U.S. DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON

BY

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

UNITED STATES OF AMERICA, et al., Plaintiffs, vs. STATE OF WASHINGTON, et al., Defendants	Case No.: C70-9213 Subproceeding No 89-3 (Shellfish) STIPULATION AND ORDER AMENDING SHELLFISH IMPLEMENTATION PLAN
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In an amended opinion filed September 25, 1998, at 157 F.3d 630, the Ninth Circuit Court of Appeals remanded three issues to the District Court for further proceedings: (1) determination of the minimum density of shellfish necessary to establish the existence of a natural bed, (2) the manner of implementing the Tribes' allocation of shellfish from Growers' beds, and (3) the manner of resolving disputes to be included in the Shellfish Implementation Plan, (the "Plan"), 898 F Supp. 1453, 1463 *et seq.*

To address issues (1) and (2), the Tribes, the Growers, and the State of Washington have stipulated to revisions of sections six and eight of the Plan. The Tribes and the Growers therefore

STIPULATION AND ORDER AMENDING
SHELLFISH IMPLEMENTATION PLAN - 1

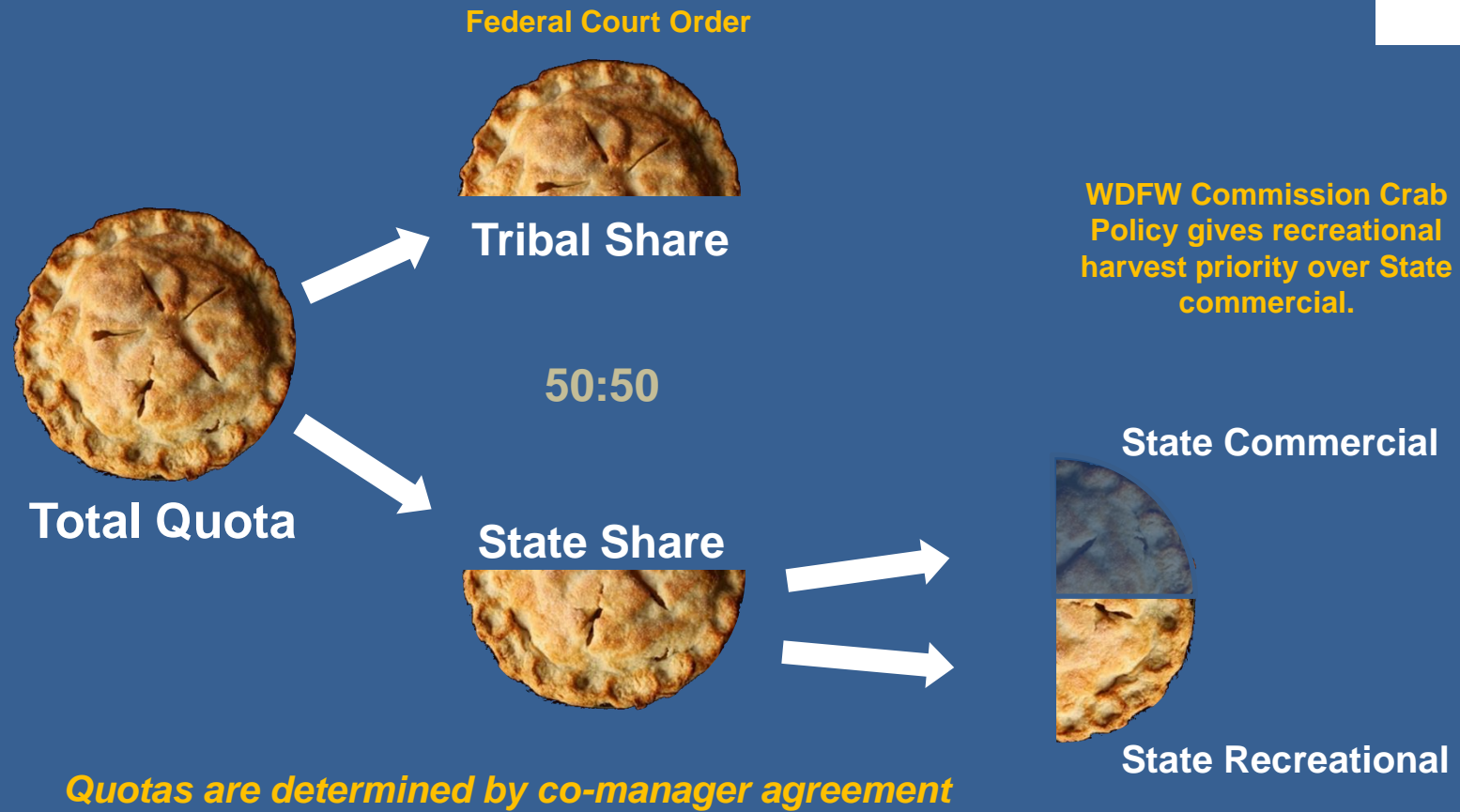
Kanji & Katzen, PLLC
720 Third Avenue, Suite 1500
Seattle, WA 98104
206-344-8100
WSBA # 7835

17340
14331

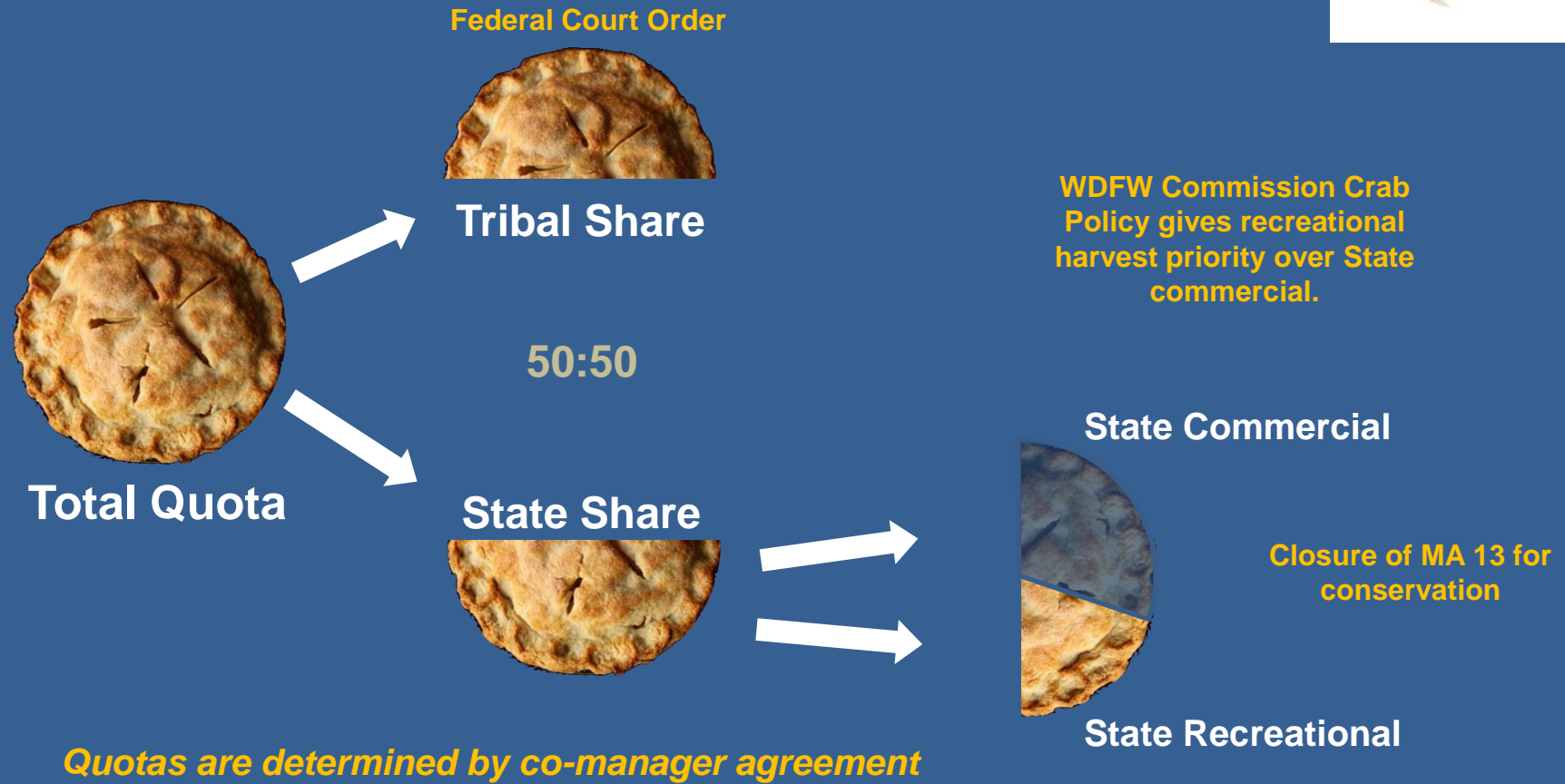
Co-management and Policy

- Puget Sound Crab Policy (revised Sept. 2010)
 - Recreational fishery priority
 - State Commercial only after recreational accommodated
 - State Commercial in North Puget Sound only
 - No State Commercial “mop up” allowed
- Puget Sound Shrimp Policy (revised Dec. 2012)
 - Recreational fishery priority for spot shrimp (70% vs 30%)
 - State Commercial priority for non-spot shrimps (80% vs 20%)
 - State Commercial in North Puget Sound only
 - State Commercial “mop up” allowed with limits

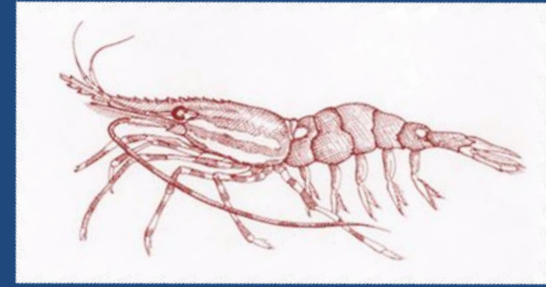
Crab - Allocation to the user groups



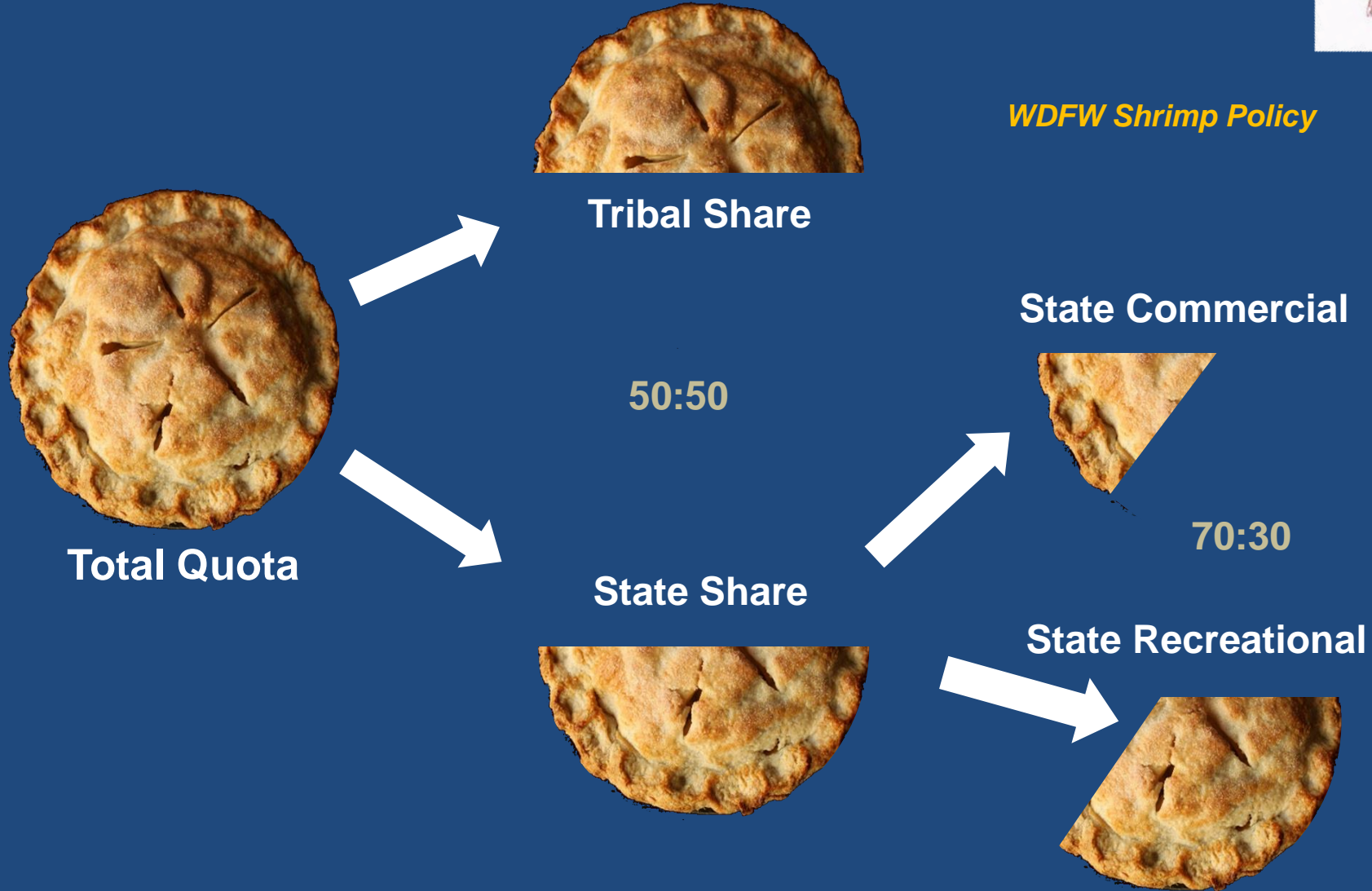
Crab - Allocation to the user groups



Spot Shrimp – Allocation to the user groups



Federal Court Order



WDFW Shrimp Policy

Quotas are determined by co-manager agreement

Crustacean Fishery Management in PS

Overall Goals:

- Keep harvests within the agreed-to quota
 - Sharing & conservation objectives
- Reduce/eliminate unregulated harvest (illegal activity)
- Manage the fishery in line with the FWC policies
 - *Defined seasons and allocations*

Crustacean Fishery Management in PS

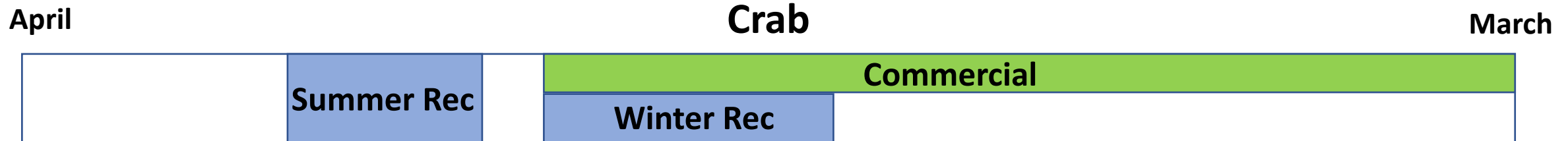
Setting Quotas:

- Typically based on recent harvest (3- or 5-year average)
- Test Fisheries - Pre- and Post Season
- Often in-season adjustments for crab
 - Based on fishery performance and catch metrics
 - Indicators suggest enough resource available

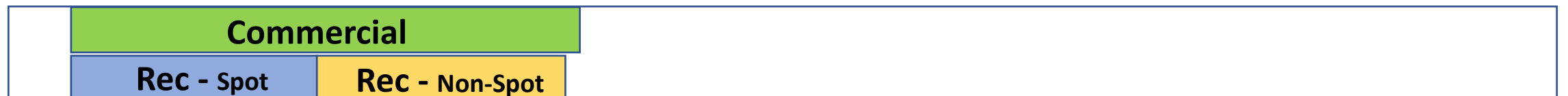
Crustacean Fishery Management in PS

Managing Fisheries in PS

- *Limited resources – LOTS of users*
- **Managing recreational and commercial fisheries simultaneously**



Shrimp



Crab Topics

- 2022 Season Review
 - Preliminary Catch Totals
 - Recreational Reporting Rates
 - Gear Sweep summary
 - Bias Correction Revisited
- 2023 Season Planning
 - Test fishing update
 - Management Plan progress



Crab – 2022 State Harvest**



Management Region	Marine Area	Regional State Share	State Summer Recreational Catch	State Summer EUC	State Winter Recreational Catch	State Winter EUC	State Commercial Harvest	State Commercial EUC	Total State Harvest To-Date	State Balance To-Date
1	7	2,300,000	420,279	41,902	66,961	6,676	1,806,333	18,063	2,360,214	-60,214
2E	8-1,8-2	1,040,000	473,425	47,201	56,663	5,649	478,268	4,783	1,065,989	-25,989
2W	9	225,000	67,423	6,722	20,168	2,011	139,076	1,391	236,790	-11,790
3-1	6, N	44,415	1,945	194	427	43	27,582	276	30,467	13,948
3-2	6, SE	401,490	117,213	11,686	25,745	2,567	233,842	2,338	393,390	8,100
3-3	6, W	15,500	2,432	242	534	53	5,653	57	8,971	6,529
3-4	4, 5	9,500	4,283	427	641	64	883	9	6,307	3,193
4	10	40,000	25,811	2,573	11,772	1,174	0	0	41,330	-1,330
5	12	240,200	65,685	6,549	23,153	2,308	0	0	97,695	142,505
6	11	42,000	18,694	1,864	10,041	1,001	0	0	31,599	6,401
7	13	0	229	23	0	0	0	0	251	-251
STATE HARVEST TOTALS		4,354,105	1,197,418	119,383	216,105	21,546	2,691,637	26,916	4,273,004	

RED indicates areas without a signed plan and agreed-to quota

*Commercial data through 4/14/2023

** Subject to change based on Responsive Management telephone survey

Crab - Recreational CRC Reporting Rates Summer



Summer	CRCs Issued	CRCs Reported Mail	CRCs Reported Online	CRCs Reported	CRCs Unreported	Endorsements Entire Year
2007	210,327	34,400 (16%)	32,373 (15%)	66,773 (32%)	143,554 (58%)	226,063
2008	210,893	26,037 (12%)	43,919 (21%)	69,956 (33%)	140,937 (67%)	215,643
2009	236,665	37,128 (16%)	72,172 (30%)	107,300 (45%)	129,365 (55%)	241,226
2010	208,462	29,406 (14%)	77,472 (37%)	107,418 (52%)	101,044 (48%)	213,013
2011	230,355	31,222 (14%)	89,095 (39%)	120,317 (52%)	110,038 (48%)	237,129
2012	200,711	26,504 (13%)	79,895 (40%)	106,399 (53%)	94,312 (47%)	209,957
2013	214,692	26,236 (12%)	90,379 (42%)	116,615 (54%)	98,077 (46%)	222,050
2014	213,741	25,296 (12%)	91,270 (43%)	116,566 (55%)	97,175 (45%)	223,184
2015	232,621	25,685 (11%)	94,336 (41%)	120,021 (52%)	112,600 (48%)	243,934
2016	216,977	23,734 (11%)	90,262 (42%)	113,996 (53%)	102,981 (47%)	223,443
2017	215,929	33,252 (15%)	72,601 (34%)	105,853 (49%)	110,076 (51%)	222,222
2018	200,962	31,316 (16%)	72,790 (36%)	104,106 (52%)	96,856 (48%)	207,557
2019	192,798	29,006 (15%)	69,087 (36%)	97,571 (51%)	95,227 (49%)	200,113
2020	213,831	23,716 (11%)	53,029 (25%)	76,745 (36%)	137,086 (64%)	222,181
2021	225,282	27,534 (12%)	75,254 (33%)	102,788 (46%)	122,494 (54%)	233,108
2022	210,725	20,440 (10%)	68,275 (32%)	88,715 (42%)	122,010 (58%)	221,150

Crab - Recreational CRC Reporting Rates Winter

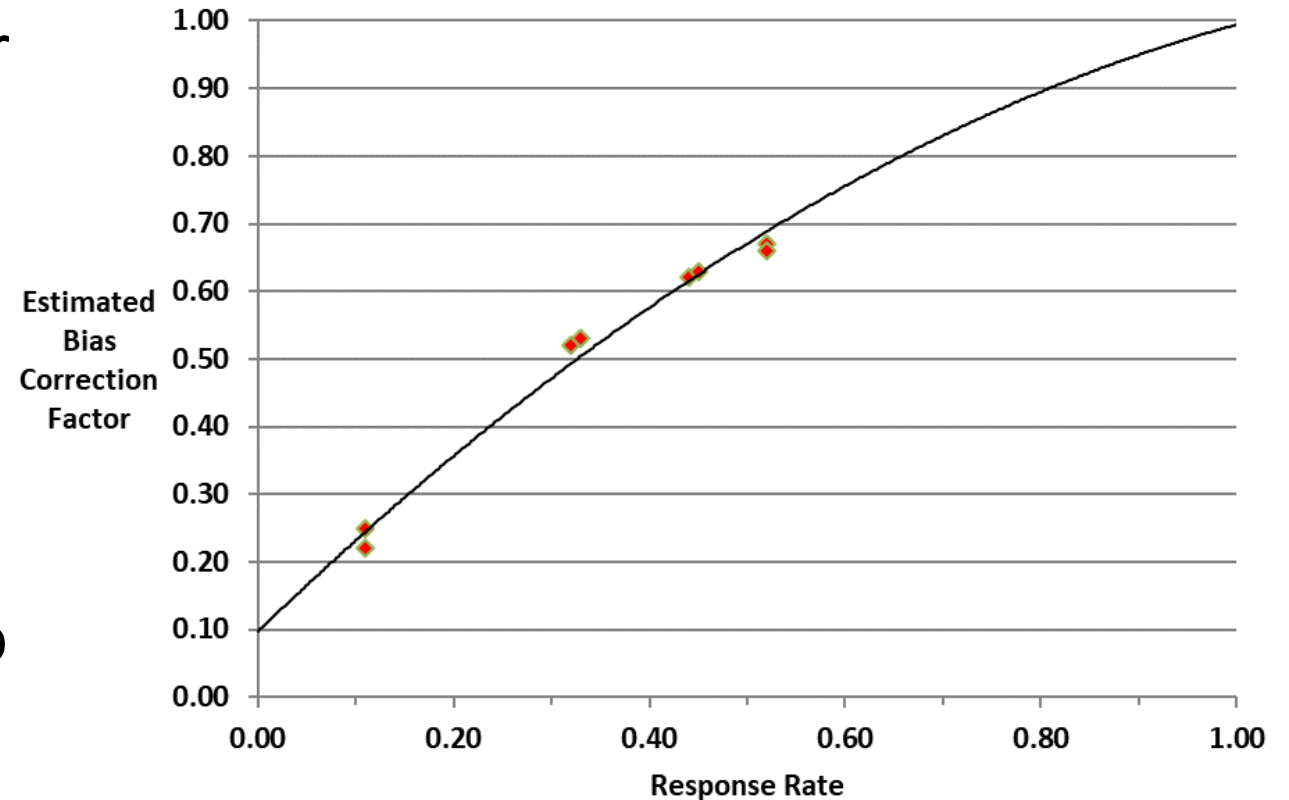


Winter	CRCs Issued	CRCs Reported Mail	CRCs Reported Online	CRCs Reported	CRCs Unreported	Endorsements Entire Year
2007	157,905	10,281 (7%)	6,388 (4%)	16,669 (11%)	141,236 (89%)	226,063
2008	207,143	10,993 (5%)	10,871 (5%)	21,864 (11%)	185,279 (89%)	215,643
2009	89,259	11,909 (13%)	27,382 (31%)	39,291 (44%)	49,968 (56%)	241,226
2010	70,763	9,633 (14%)	27,346 (39%)	36,979 (52%)	33,784 (48%)	213,013
2011	28,514	4,675 (16%)	13,899 (49%)	18,574 (65%)	9,940 (35%)	237,129
2012	27,711	4,508 (16%)	13,357 (48%)	17,865 (65%)	9,846 (35%)	209,957
2013	29,638	4,419 (15%)	15,223 (51%)	19,642 (66%)	9,996 (34%)	222,050
2014	35,371	5,040 (14%)	17,401 (49%)	22,441 (63%)	12,930 (37%)	223,184
2015	36,398	5,039 (14%)	18,284 (50%)	23,323 (64%)	13,075 (36%)	243,934
2016	26,591	5,777 (22%)	10,577 (40%)	16,534 (62%)	10,057 (38%)	223,443
2017	23,277	4,431 (19%)	9,746 (42%)	14,177 (61%)	9,100 (39%)	222,222
2018	24,620	3,906 (16%)	9,896 (40%)	13,802 (56%)	10,818 (44%)	207,557
2019	23,578	4,178 (18%)	8,520(36%)	12,698 (54%)	10,880 (46%)	200,113
2020	36,459	5,015 (14%)	13,178 (36%)	18,193 (50%)	18,266 (50%)	222,181
2021	26,843	3,894 (15%)	9,591 (36%)	13,485 (51%)	13,358 (49%)	233,108
2022	37,900	5,173 (14%)	13,226 (35%)	18,399 (49%)	19,501 (51%)	221,150

Crab - Bias Correction Factor Update Responsive Mgmt Survey



- **Bias correction** is a fundamental component of our recreational catch estimation methods
- The bias correction factor is applied to the expanded recreational catch estimate to account for **lower catch rates by crabbers that do not submit catch record cards.**



Crab - *Preliminary* Responsive Mgmt Survey Results



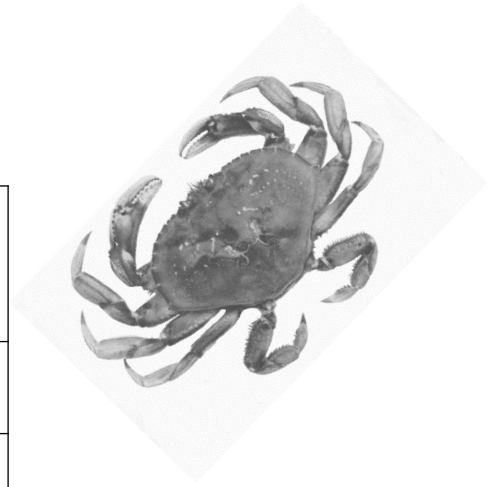
- WDFW contracted with Responsive Mgmt to survey Puget Sound CRC holders to collect information to update the bias correction factor function
 - Summer survey complete, winter ongoing
 - Prior to this season, the data that informs this relationship is from 2007-2010
- 2022 Summer season survey results indicate catch is ***higher*** than our historical bias correction expansion
 - ***Preliminary*** ~8% higher overall
- We will send the advisors more information on the survey results in May.

Crab – 2023 Season planning

- 1) Management plans being reviewed now
- 2) Summer recreational dates are likely to be similar to last season
- 3) Summer dates not expected to include July 4th in 2023



Crab - Test Fishing Summaries



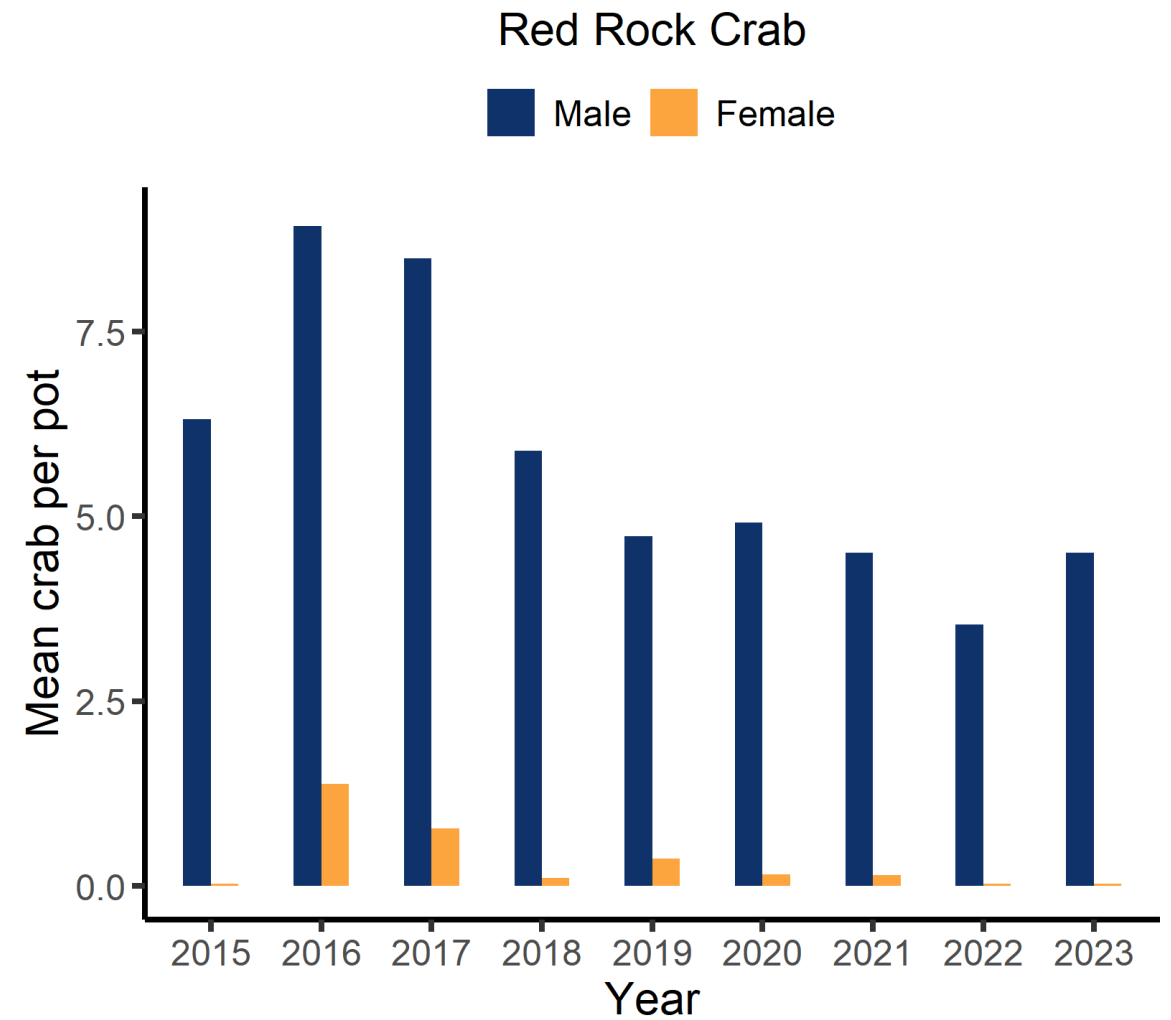
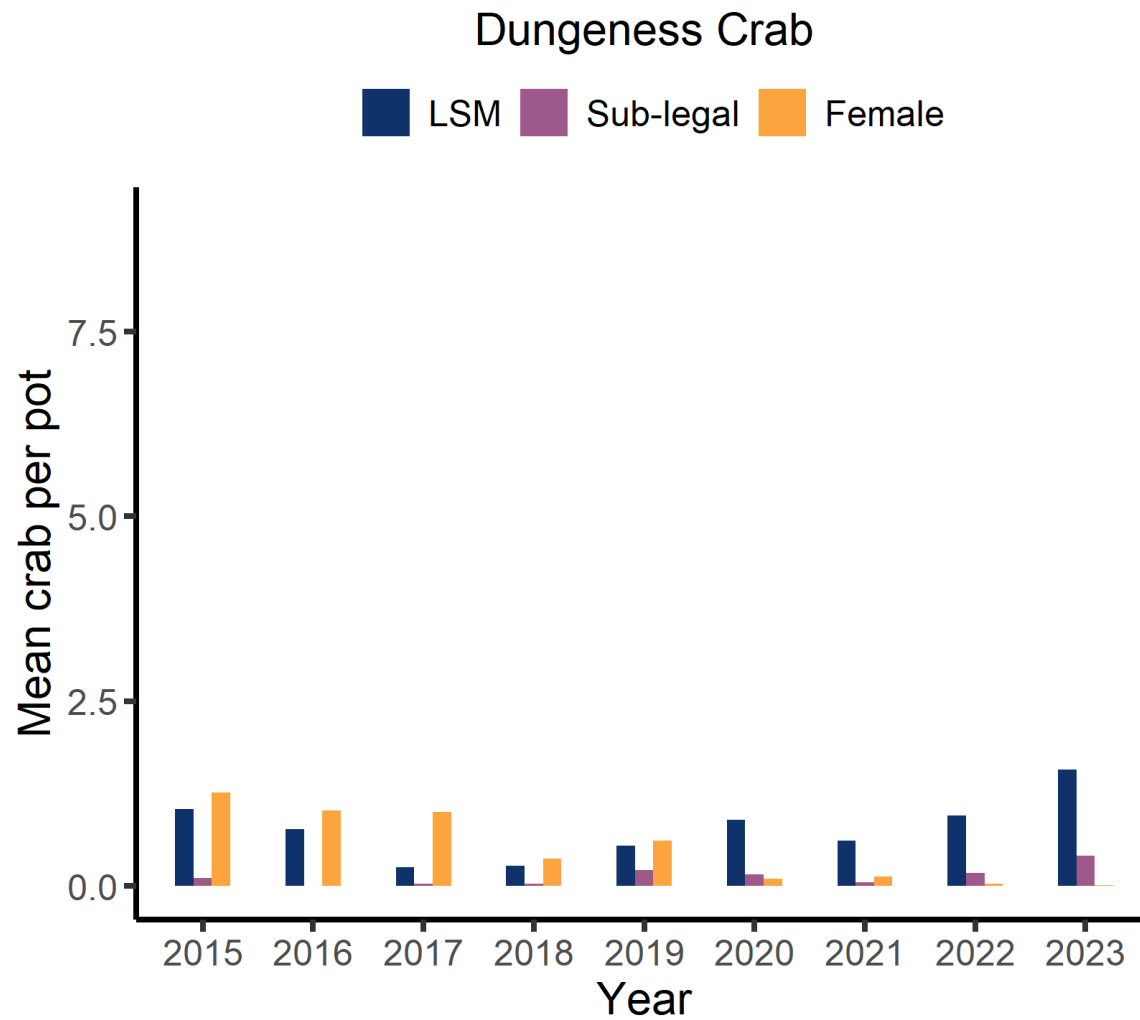
Sampling Lead	Marine Area	Pre - 2021	Post - 2021	Pre - 2022	Post - 2022	Pre – 2023
Lummi Test	7 North	NA	-	30.8	-	August
Swinomish Test	8-1	11.4	-	10.4	-	May
Upper Skagit Test	8-1	8.6	-	7.1	-	Late April
Tulalip Port Susan Test	8-2	11.3	-	8.6	-	April
Tulalip Everett Test	8-2	13.1	-	14.6	-	April
WDFW Test	9	9.5	4.3	10.7	3.0	June 6
Suquamish/WDFW Test	10	7.8	NA	7.1	5.2	May
Puyallup Test	11	NA	-	5.6	-	5.5
WDFW Test	12	5.4	1.9	6.9	2.8	June 12
WDFW Test	13	0.6	-	1.0	-	1.6

Dungeness crab, Legal Size Males (LSM) per pot from test fisheries

WDFW Crab Test Fishing Stations Marine Area 13 (15 pots per station)



WDFW Crab Test fishing MA 13 2015-2023

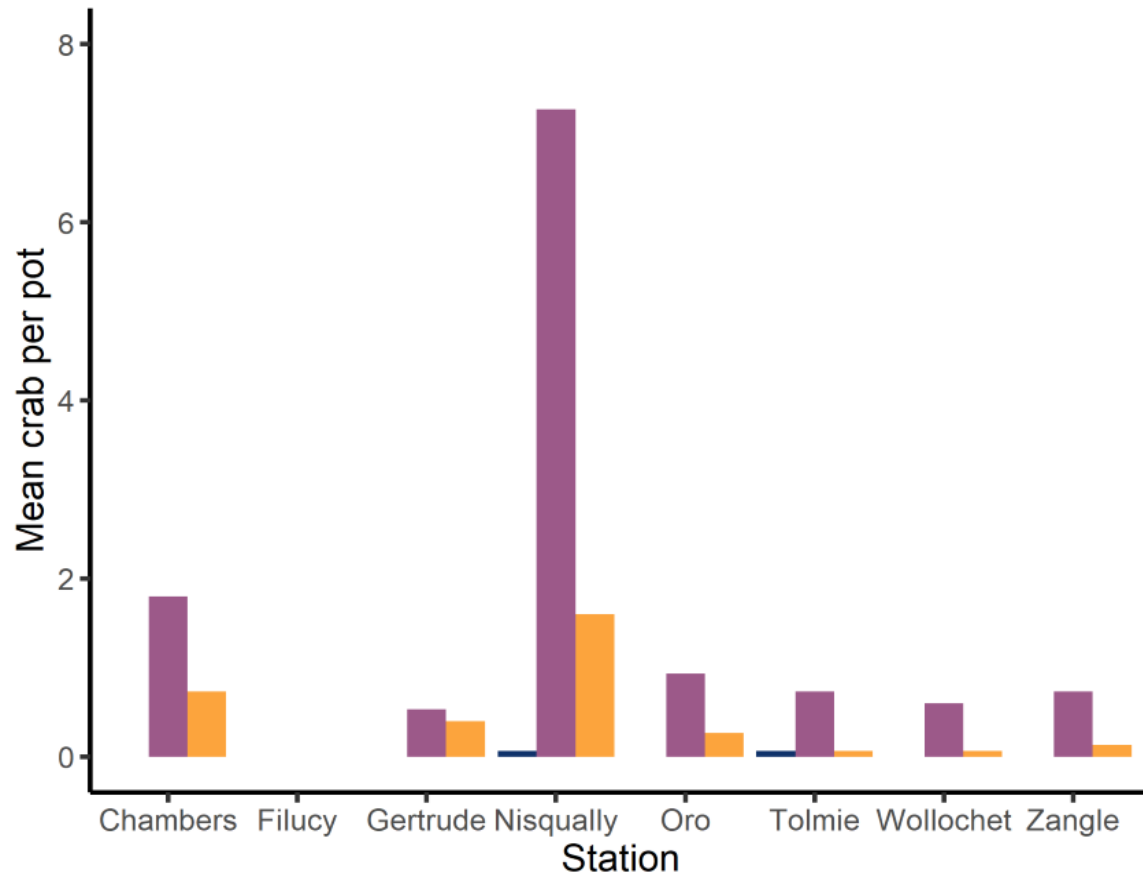


WDFW Crab Test fishing MA 13 2023



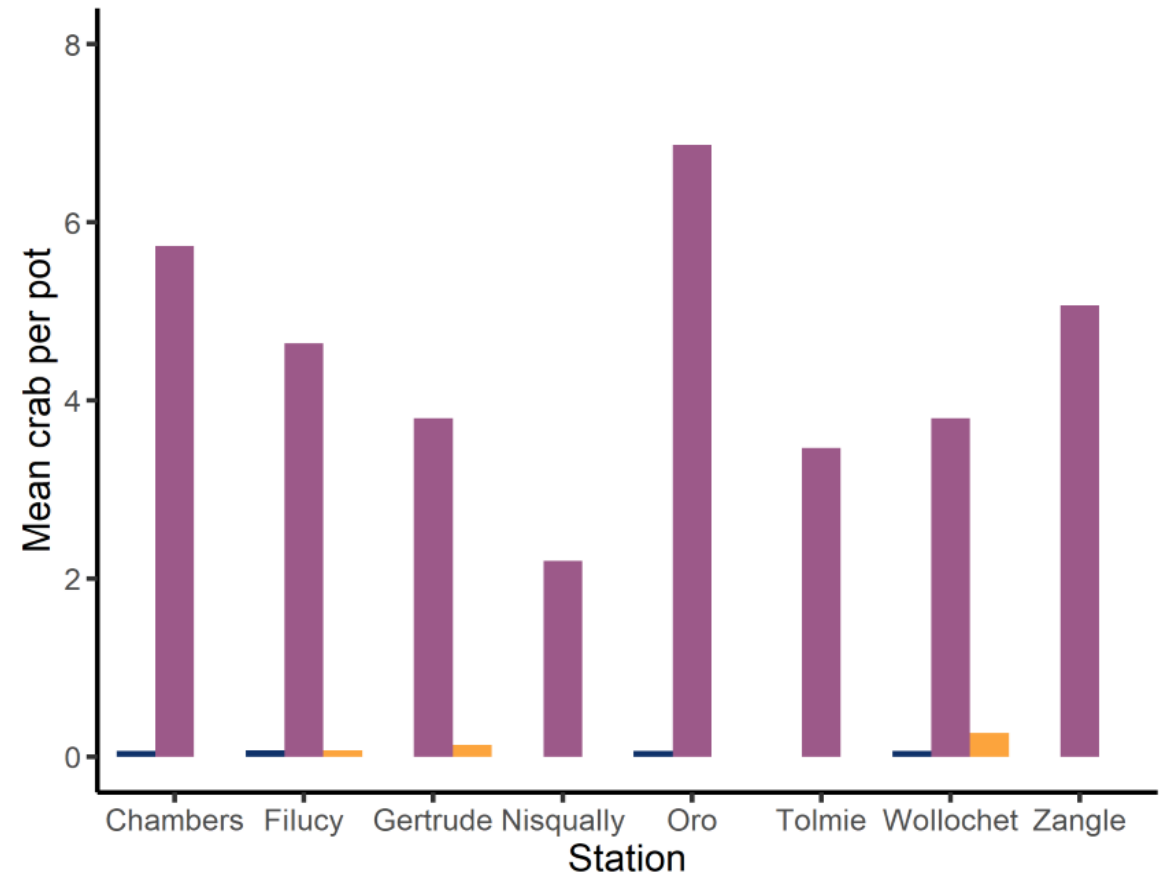
Dungeness Crab (2023 Pre-season)

Female LSM Sub-legal



Red Rock Crab (2023 Pre-season)

Female LSM Sub-legal



10 pots set

18-24 hr soak

Escape rings closed

197 Dungeness crab



WDFW Crab Test Fishing

MA 8-2 2005

VS

MA 13 2023

120 pots set

18-24 hr soak

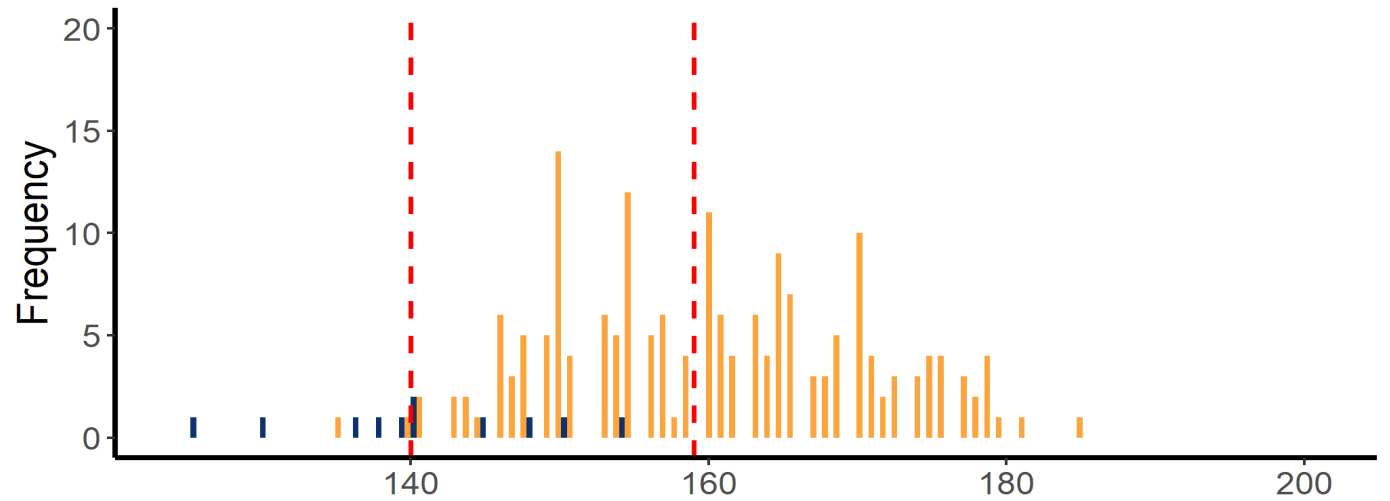
Escape rings closed

240 crab

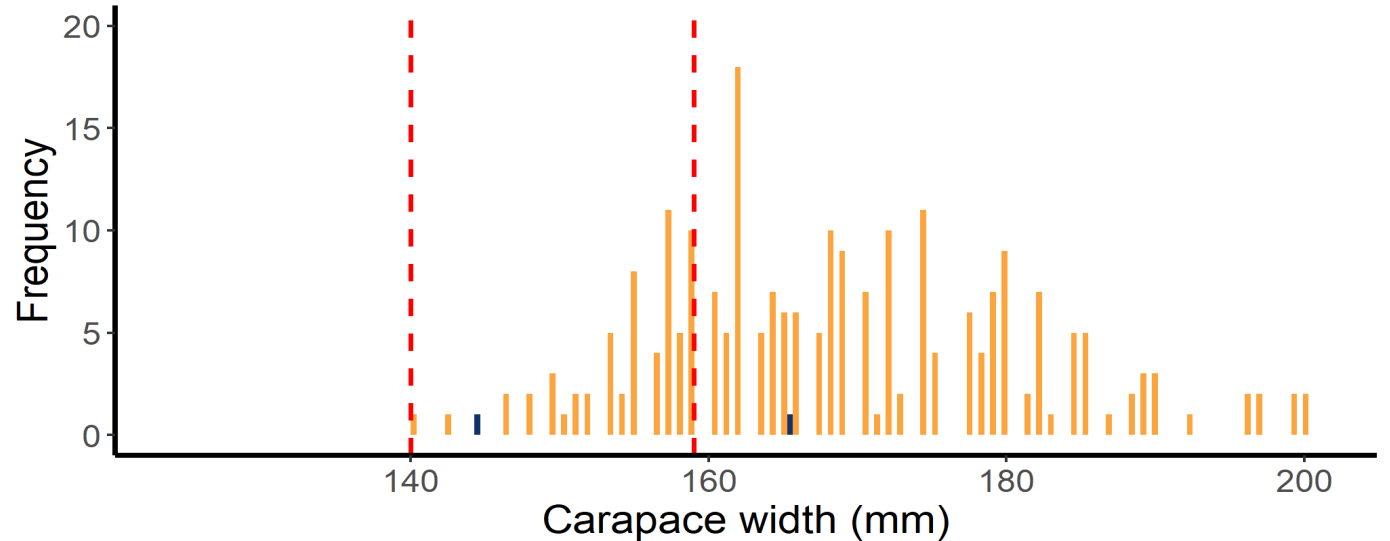


Dungeness Crab (Marine Area 8-2: 2005)

Male Female

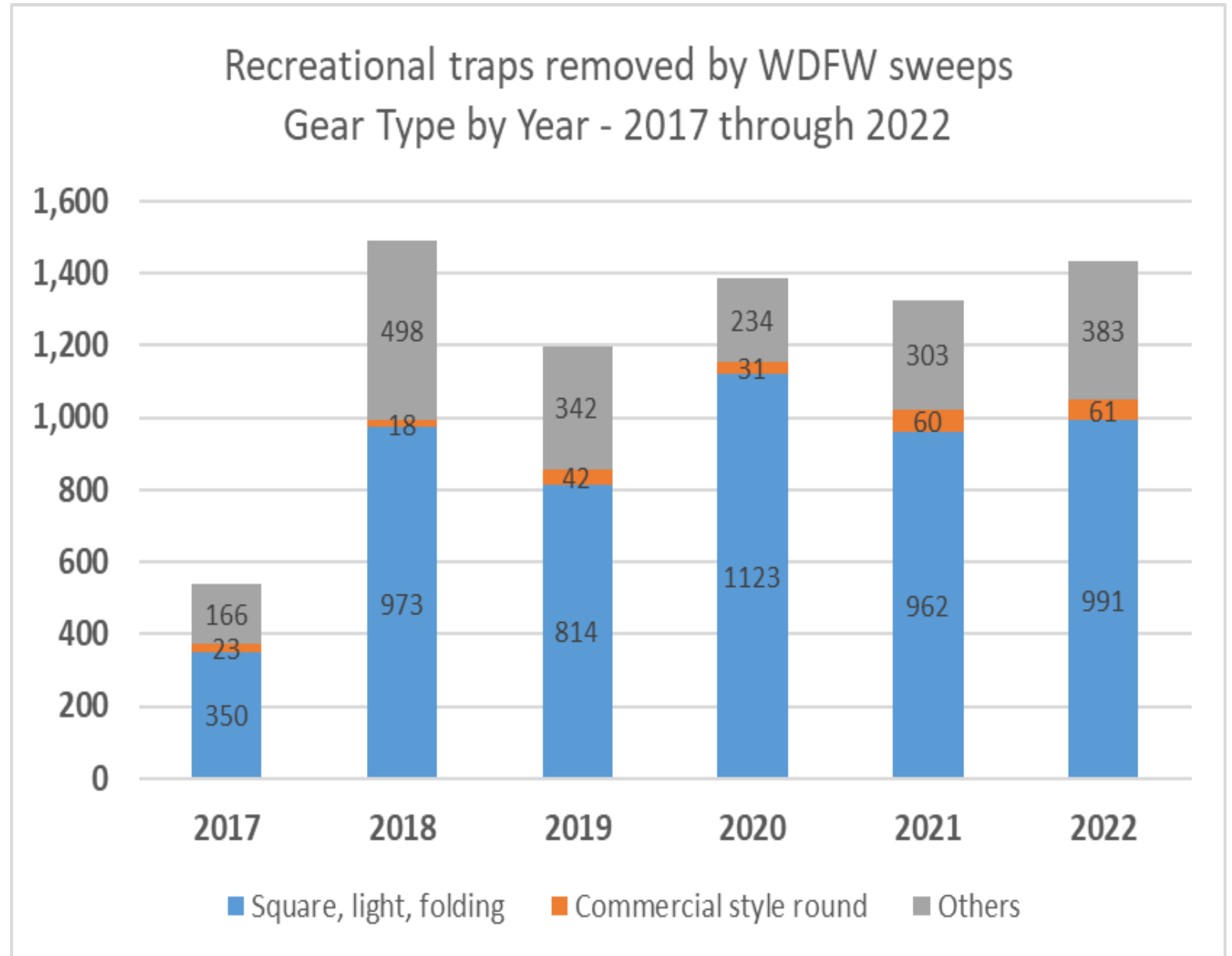


Dungeness Crab (Marine Area 13: 2023)



Crab – Sweeps of lost/closed season traps

- WDFW Enforcement removes buoyed traps
- Crabs counted and released
- Performed on days when fishery is closed
- Most buoys improperly labeled
- Many pots need weight added (~63%)
- Many pots have buoys improperly attached (~79%)



Online Crabber Quiz



Puget Sound Recreational Crabber Knowledge Quiz

Overview

Design

Collaborate

Analyze

Data

Settings



Owner: Katelyn.Bosley@dfw.wa.gov_wdfw, created: Jul 18, 2022, updated: Sep 23, 2022

This survey is shared with Everyone (public) and WA Dept of Fish and Wildlife



Total records



Total participants



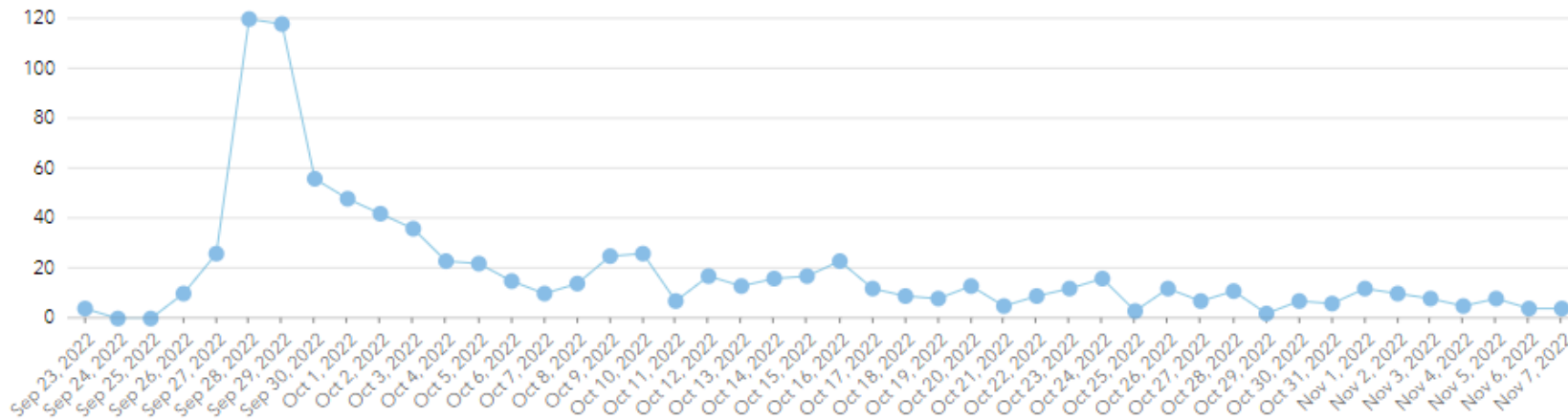
First submitted On



Last submitted On

Surveys count: 871 (total: 871)

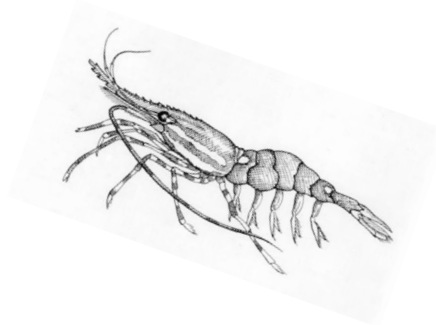
9/23/22 - 11/7/22



Shrimp Topics

- 2022 Shrimp Season Summary
- Test fisheries – latest data
 - 2022 Post Season
 - 2023 Pre-season
- 2023 Shrimp Seasons
 - Update on agreed regional management plans
 - Starting May 25 /Announced in news release and posted online

Spot Shrimp - 2022 State Harvest Summary

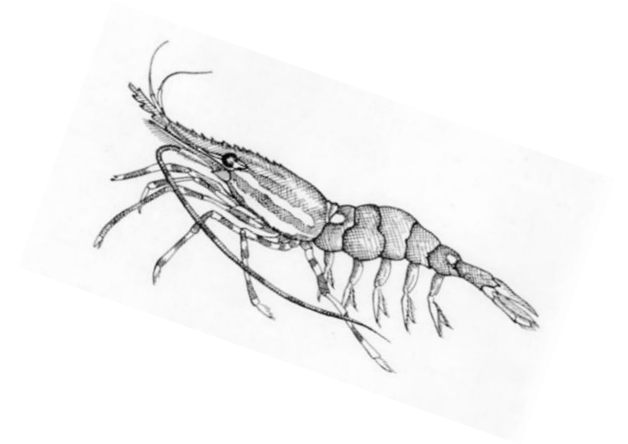


Spot Shrimp Management Regions	Total Harvest Quota	State Total Share	State Adjusted Quota	Rec. Harvest	Comm. Harvest	Total	Remaining
1A/20B, 22A (west)	80,000	40,000	32,879	23,880	7,648	31,528	1,351
1B/20B, 22A (east), 21A	14,000	7,000	4,578	7,760	0	7,760	-3,182
1C/20A, 21A, 21B, 22B	6,000	3,000	3,000	1,000	2,190	3,190	-190
REGION 1 TOTALS	100,000	50,000	40,457	32,640	9,838	42,478	-2,021
2E/24A-D, 26A-E (Skagit - Mukilteo)	46,000	23,000	23,000	21,254	1,764	23,018	-18
2W/25B-D, 26AW (Edmonds - Admiralty Inlet)	15,000	7,500	6,457	8,579	0	8,579	-2,122
REGION 2 TOTALS	61,000	30,500	29,457	29,833	1,764	31,597	-2,140
3/23A-E (S Lopez I-Iceberg Pt, etc)	42,000	21,000	20,389	11,648	6,807	18,455	1,934
3/23A-W (S San Juan I-Salmon Bank, etc)	40,000	20,000	18,728	2,501	16,666	19,167	-439
3/23A-C, 23B (Straits-Hein, Eastern Bank, Smith I)	127,000	63,500	63,500	7,899	56,081	63,980	-480
3/23A-S, 23D (Straits-NE of P.A.)	17,000	8,500	8,500	2,000	5,219	7,219	1,281
3/23C (Straits-Seki to P.A.)	4,000	2,000	2,000	800	722	1,522	478
3/25A Outside District 1 (North of Protection Is.)	42,000	21,000	21,000	12,488	8,227	20,715	285
3/25A,25E (Inside Disco. Bay SD)	4,000	2,000	939	1,048	0	1,048	-109
3/29 (Straits - Neah Bay)	2,000	1,000	1,000	500	0	500	500
REGION 3 TOTALS	278,000	139,000	136,056	38,884	93,722	132,606	3,450
4/26B-1, 26C (Seattle - Bainbridge Is.)	11,000	5,500	5,198	6,102	0	6,102	-904
4/26B-2 (Elliott Bay)	13,000	6,500	2,137	0	2,132	2,132	5
REGION 4 TOTALS	24,000	12,000	7,335	6,102	2,132	8,234	-899
5/27A-C (Hood Canal)	190,000	95,000	87,507	80,426	4,109	84,535	2,972
REGION 5 TOTALS	190,000	95,000	87,507	80,426	4,109	84,535	2,972
6/26D (Vashon Island)	10,000	5,000	5,000	4,605	565	5,170	-170
6/28A-D (South Puget Sound)	300	150	150	0	0	0	150
REGION 6 TOTALS	10,300	5,150	5,150	4,605	565	5,170	-20
ALL REGIONS GRAND TOTAL	663,300	331,650	305,962	192,490	112,130	304,620	1,342
Purple is a rec estimate set aside							

2022 Allocations

Rec	Com
63%	37%

Spot Shrimp - 2022 Recreational Creel Summary

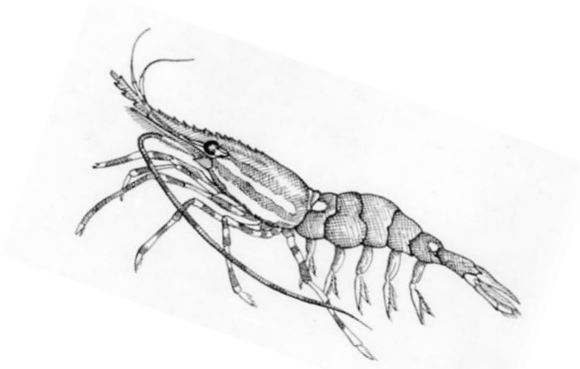


Recreational Statistics:

- **4,258** boats interviewed (second highest*)
- **27** different sites sampled
- **136** Site*Dates of coverage
 - **31** Site*Dates in Hood Canal
 - **88** Site*Dates in MA 6/7
 - **17** Site*Dates in MAs 8, 9, 10, 11, & Discovery Bay

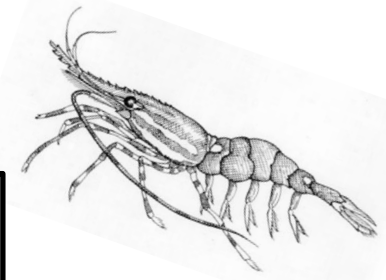


Spot Shrimp – 2022 Recreational Creel Summary

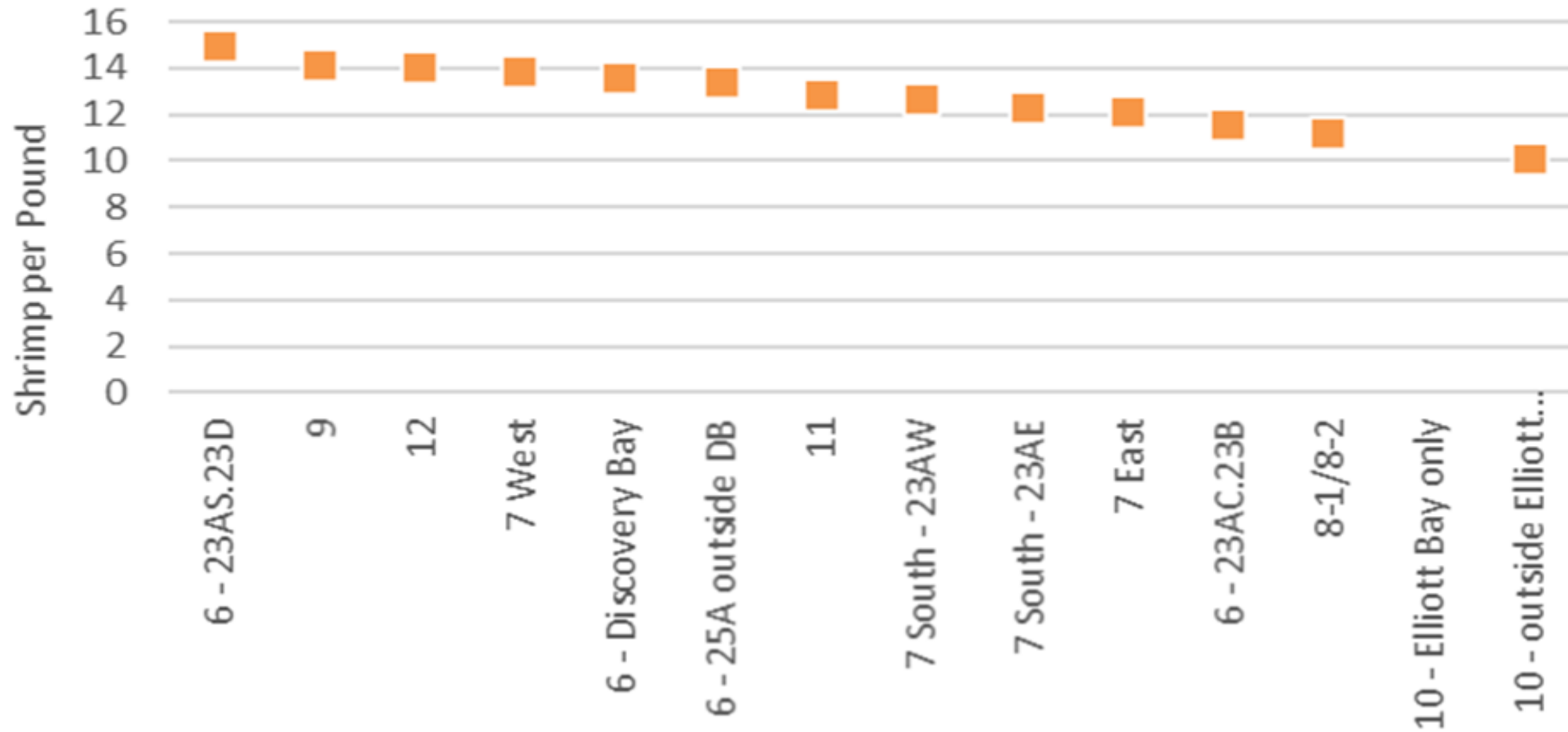


Creel Site	Boats Interviewed
bellingham_ramp	155
camano_island_state_park_ramp	66
cape_george_marina	12
cornet_bay_state_park_ramp	1,132
cushman	217
don_armeni_ramp	54
ediz_hook_ramp	7
edmonds_marina	45
everett_ramp	364
fort_casey_ramp	4
gardiner_ramp	20
john_wayne_marina_ramp	627
kingston_ramp	11
misery_point	314
pleasant_harbor_marina	134
pleasant_harbor_ramp	56
point_defiance_ramp	105
point_whitney_ramp	50
port_angeles_boat_haven_ramp	16
port_of_friday_harbor_marina	118
port_townsend_boat_haven_ramp	5
redondo_ramp	68
salsbury_point_county_park_ramp	179
shilshole_ramp	55
triton_cove_sp_boat_ramp	202
twanoh_state_park_ramp	45
washington_park_ramp	197
Grand Total	4,258

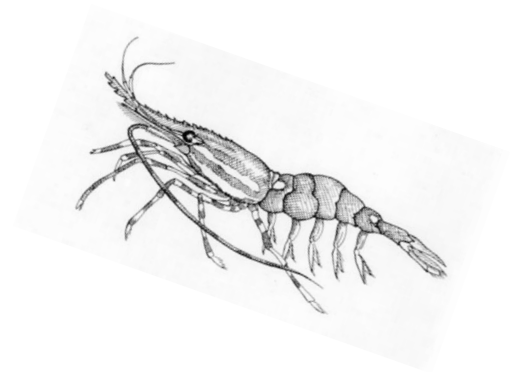
Spot Shrimp - 2022 Shrimp Size from Creels



WDFW Recreational Shrimp Sampling
Shrimp count per pound from 2022 creel data



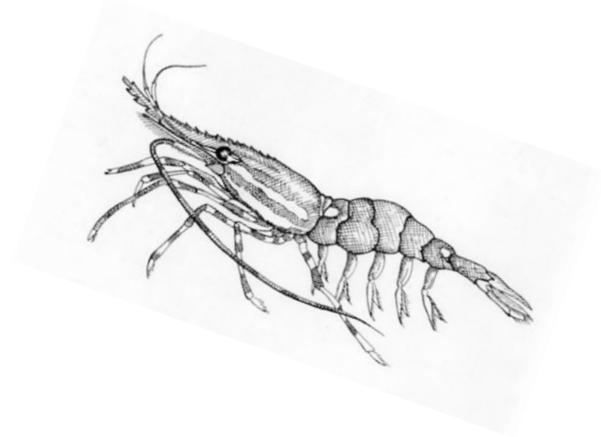
Spot Shrimp – Recreational Pounds Per Boat (by year)



Year	MA 6 (non Disco Bay)	MA 6 Disco Bay	MA 7 East & MA 7 West	MA 7 South	MA 8	MA 9	MA 10 (non-Elliott Bay)	MA 10 Elliott Bay	MA 11	MA 12	MA 13
2002		8.1	11.1	11.1	8.3	6.7	7.2	13.2	0.0	16.1	NA
2003		13.3	10.4	10.4	9.3	12.1	12.0	12.0	11.7	16.1	NA
2004		10.9	6.9	6.9	9.2	9.2	12.4	13.7	11.5	14.0	NA
2005		10.5	9.1	14.4	10.8	16.9	12.3	14.9	14.2	15.1	NA
2006		closed	11.4	15.4	14.2	14.3	14.7	14.7	10.7	15.8	NA
2007		closed	10.6	16.2	16.3	14.3	10.4	13.6	10.0	12.6	NA
2008		closed	10.4	15.3	14.5	13.4	10.7	15.8	11.2	13.3	NA
2009		closed	11.2	15.8	16.0	16.6	16.2	14.5	13.9	15.1	NA
2010	4.6	10.5	9.9	10.2	16.2	12.8	14.2	13.6	4.5	15.8	NA
2011	10.1	10.2	12.7	15.0	17.9	13.7	16.3	14.8	9.4	15.0	NA
2012	11.0	7.3	8.5	14.4	17.9	18.2	17.8	18.8	8.2	16.6	NA
2013	15.9	11.1	12.1	17.4	17.9	16.8	16.5	19.6	10.2	17.0	NA
2014	12.6	7.6	11.2	18.6	14.1	17.3	18.1	18.2	12.2	16.7	NA
2015	12.1	10.7	11.0	14.5	16.3	16.9	20.3	16.7	16.8	17.2	5.9
2016	17.9	9.6	15.3	16.3	17.6	19.8	18.7	24.1	17.4	14.5	10.0
2017	18.8	10.1	13.7	15.6	18.4	15.9	19.0	18.1	15.1	13.1	7.5
2018	16.8	10.3	12.7	15.5	15.8	16.2	19.9	21.5	13.0	12.4	1.8
2019	13.6	10.5	12.2	15.2	16.7	13.6	15.4	23.0	11.8	12.4	Closed
2020	14.0	11.1	13.3	16.6	18.9	14.9	16.0	23.7	14.0	16.7	Closed
2021	14.4	11.5	14.7	16.2	14.2	15.3	13.6	21.7	10.0	16.3	Closed
2022	15.4	13.2	14.5	15.4	15.8	15.6	15.4	Closed	11.5	16.1	Closed

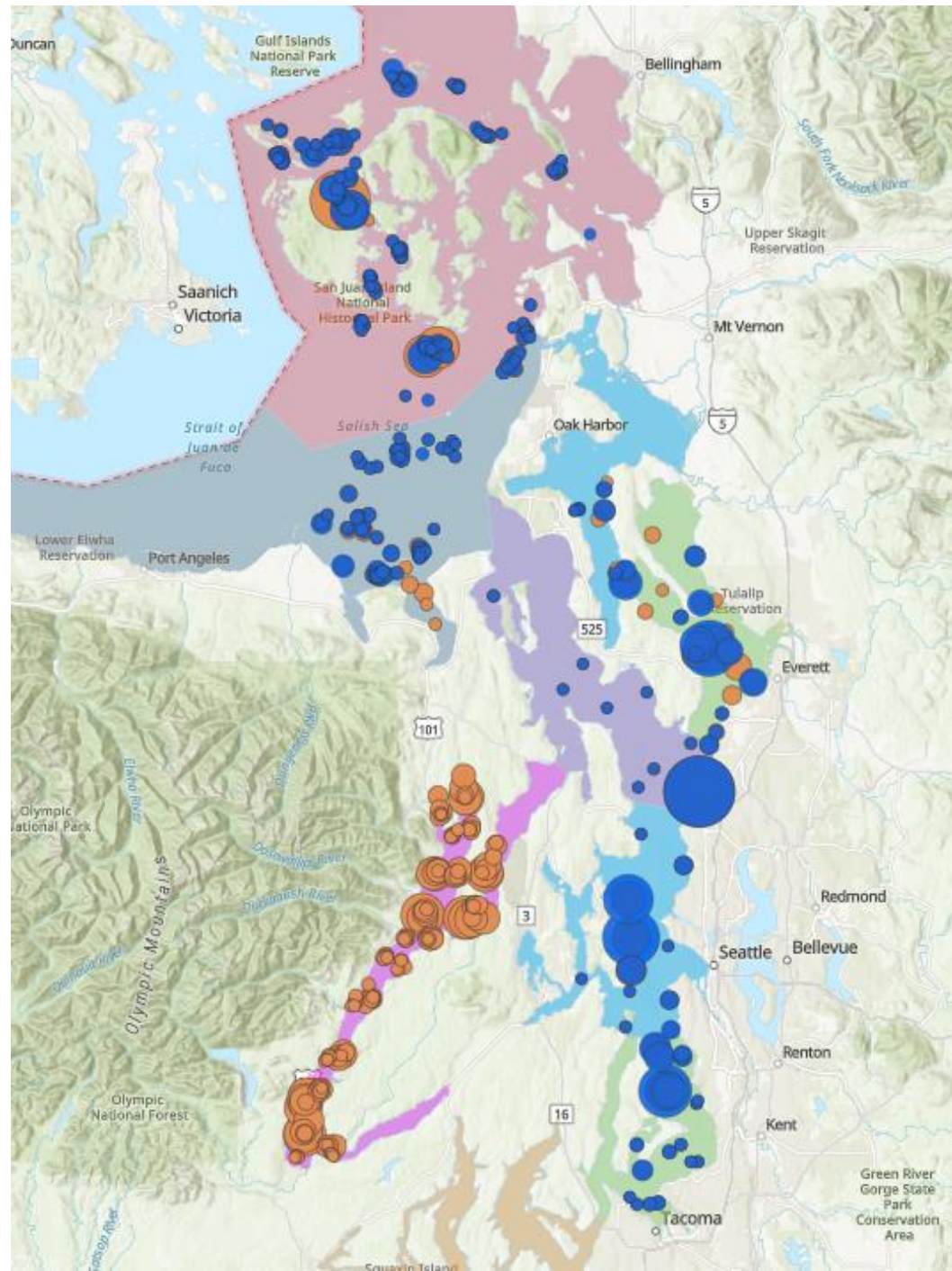
**Recreational
lbs per boat trip
from creel data**

Spot Shrimp - Recreational Season Length (days)

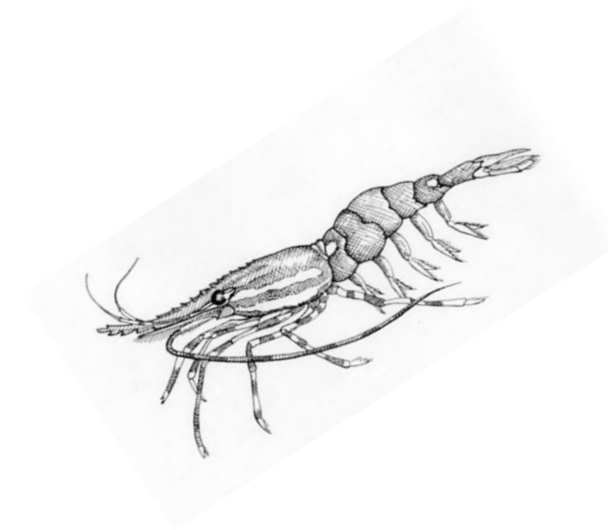


Area	2020 # of Days	2021 # of Days	2022 # of Days	2023 # of Days
MA 4	88	119	114	114
MA 5	111	119	114	114
MA 6 Discovery Bay only	2	2	1	1
MA 6 outside Disco Bay	26	27	21	17 (+)
MA 7 South	7	16	17	7 (+)
MA 7 East	16	16	7	7 (+)
MA 7 West	39	20	19	14 (+)
MA 8-1, 8-2	1	4	3	2
MA 9	2	2	2	1
MA 10 Elliot Bay only	1	1	0	1
MA 10 outside Elliot Bay	1	1	1	1
MA 11	1	1	2	1 (+)
MA 12	5	5	6	5 (+)

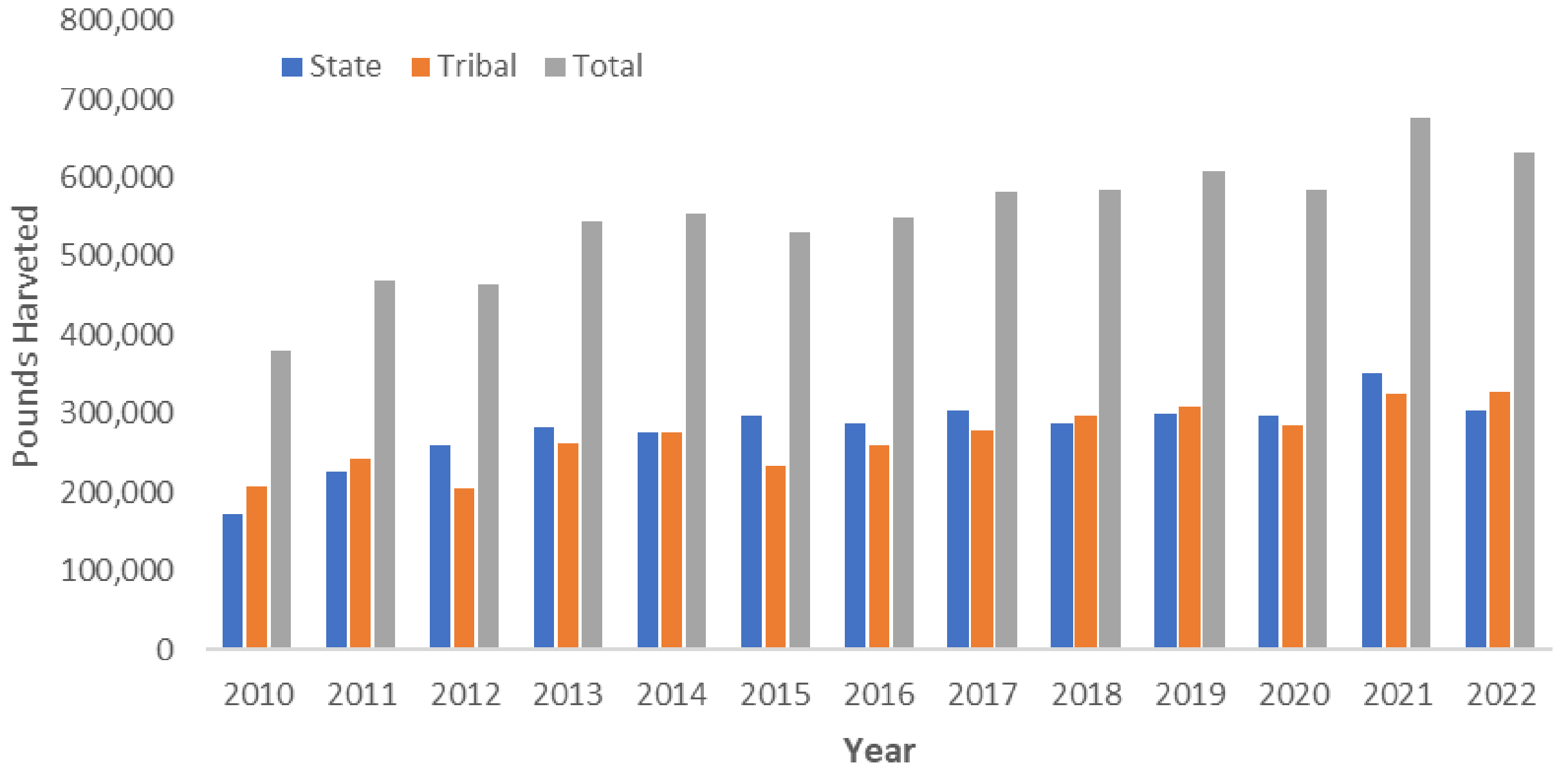
Spot Shrimp – Recreational Effort Mapped



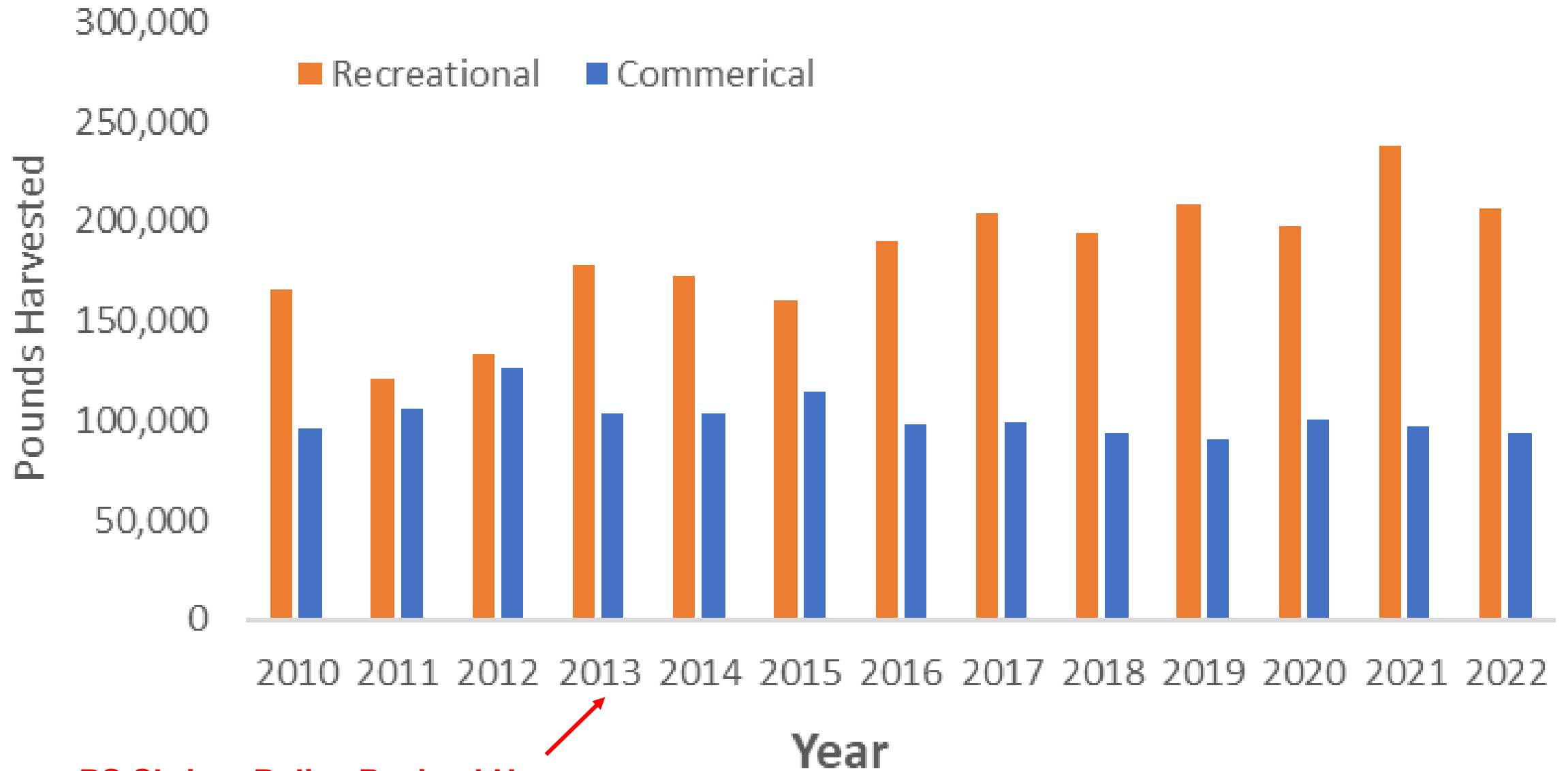
Blue – Buoys
Orange - Boats



Spot Shrimp Harvest (2010 - 2022)

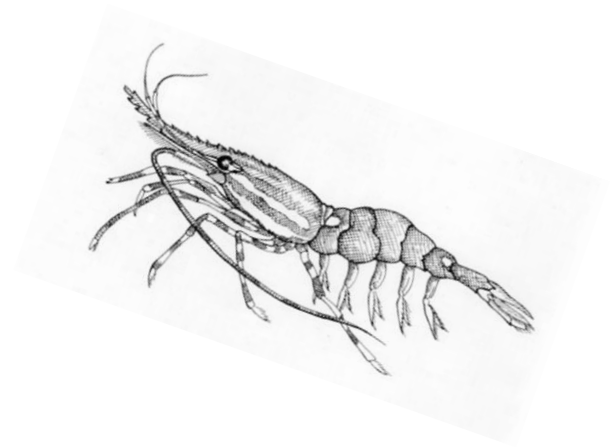


State Spot Shrimp Harvest (2010-2022)



PS Shrimp Policy Revised Here

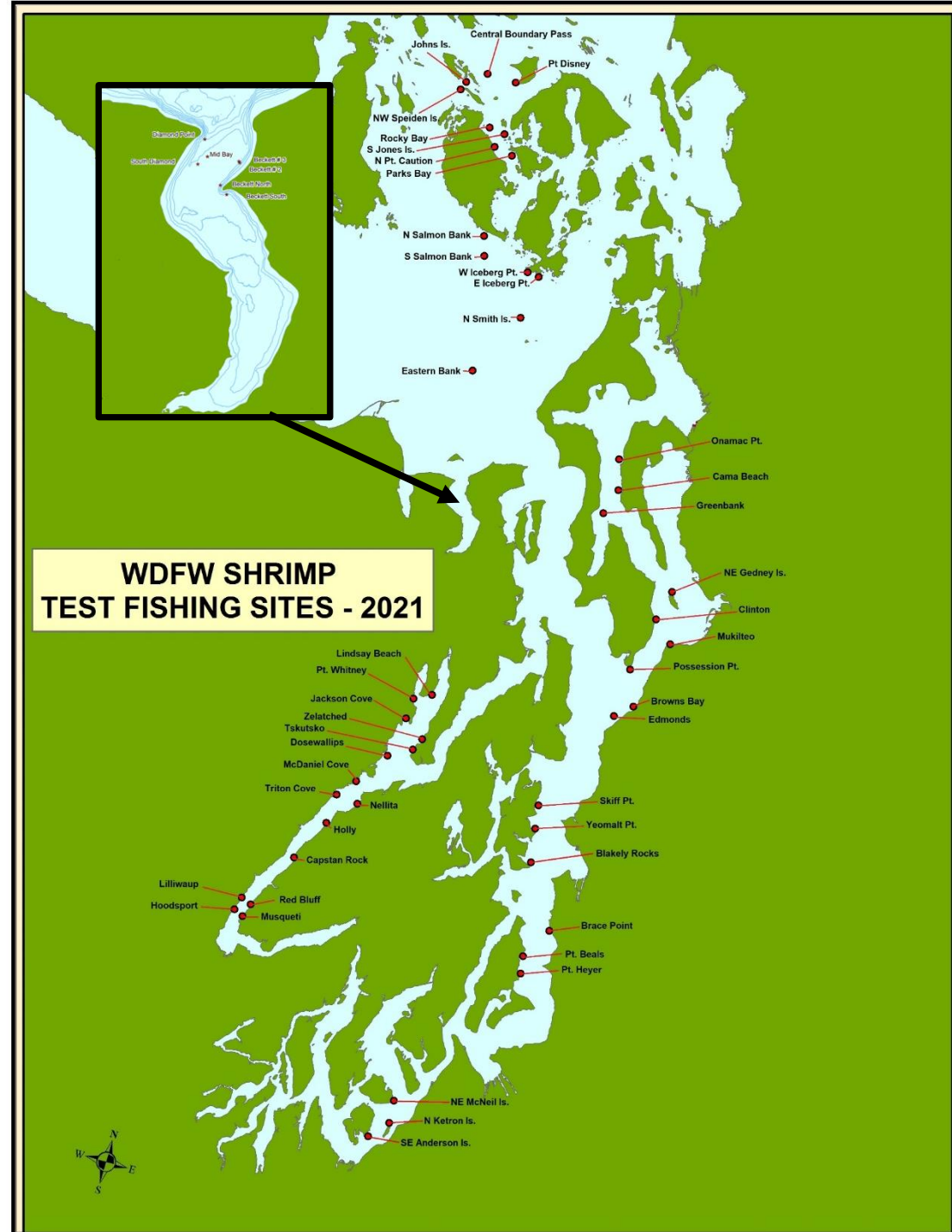
Spot Shrimp – Recreational Spot Shrimp Season Dates

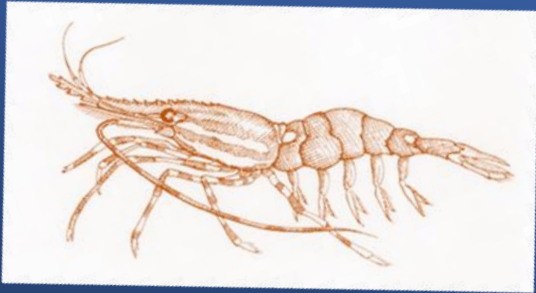


Primary Considerations

- Agreed harvest quotas
- Tides and currents
- Weekend and weekday opportunities *when possible*
- Availability of creel samplers
- Keeping effort distributed between areas
- Opportunities throughout summer
- Tribal harvest dates
- Navy range activity (Hood Canal)

Spot Shrimp - Test Fishing Summary

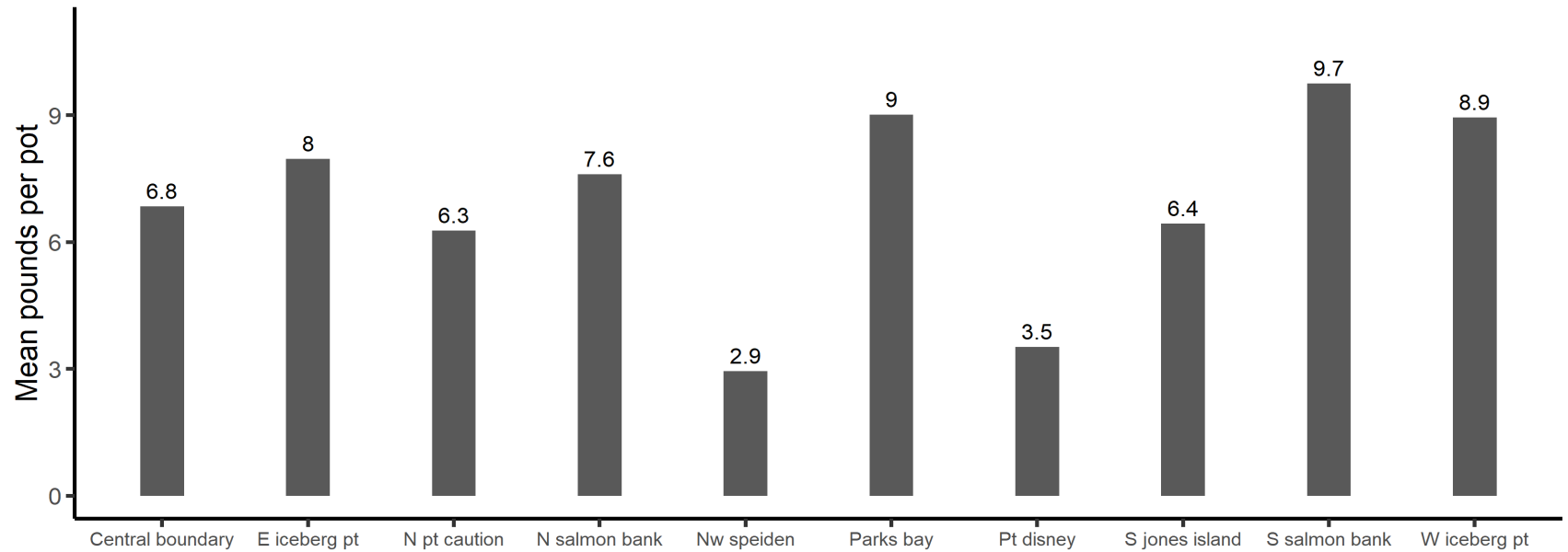




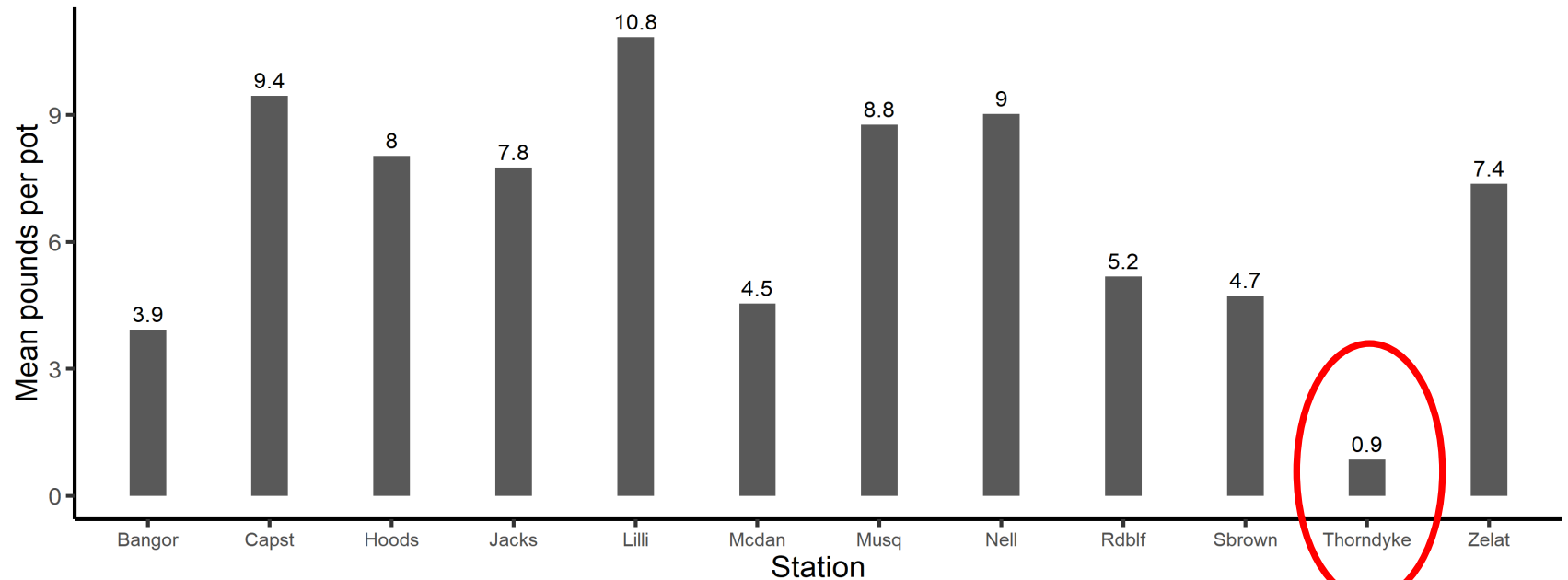
WDFW Shrimp Pre-season Test fishing

*MA 7 / MA 12
Pounds per pot*

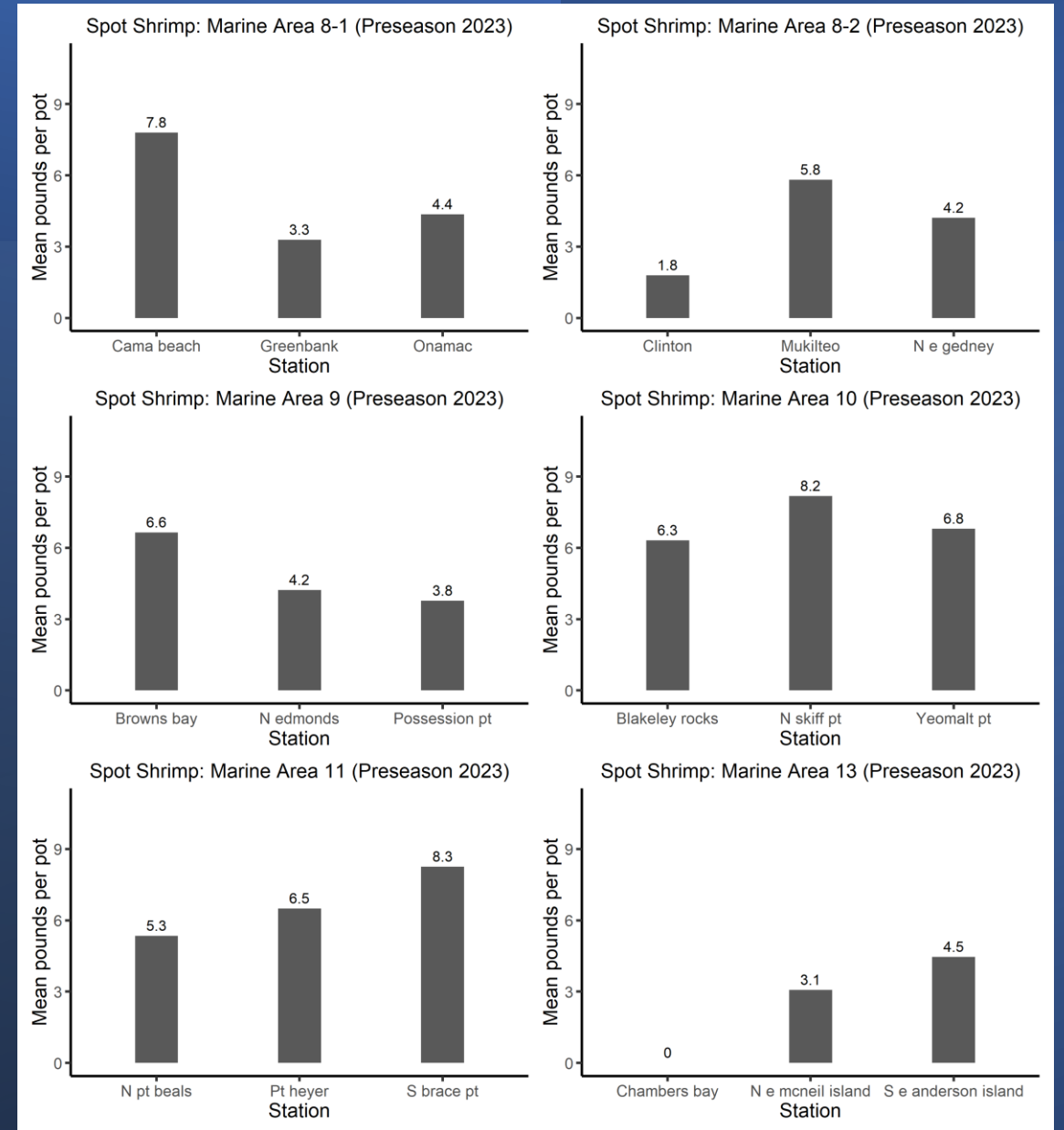
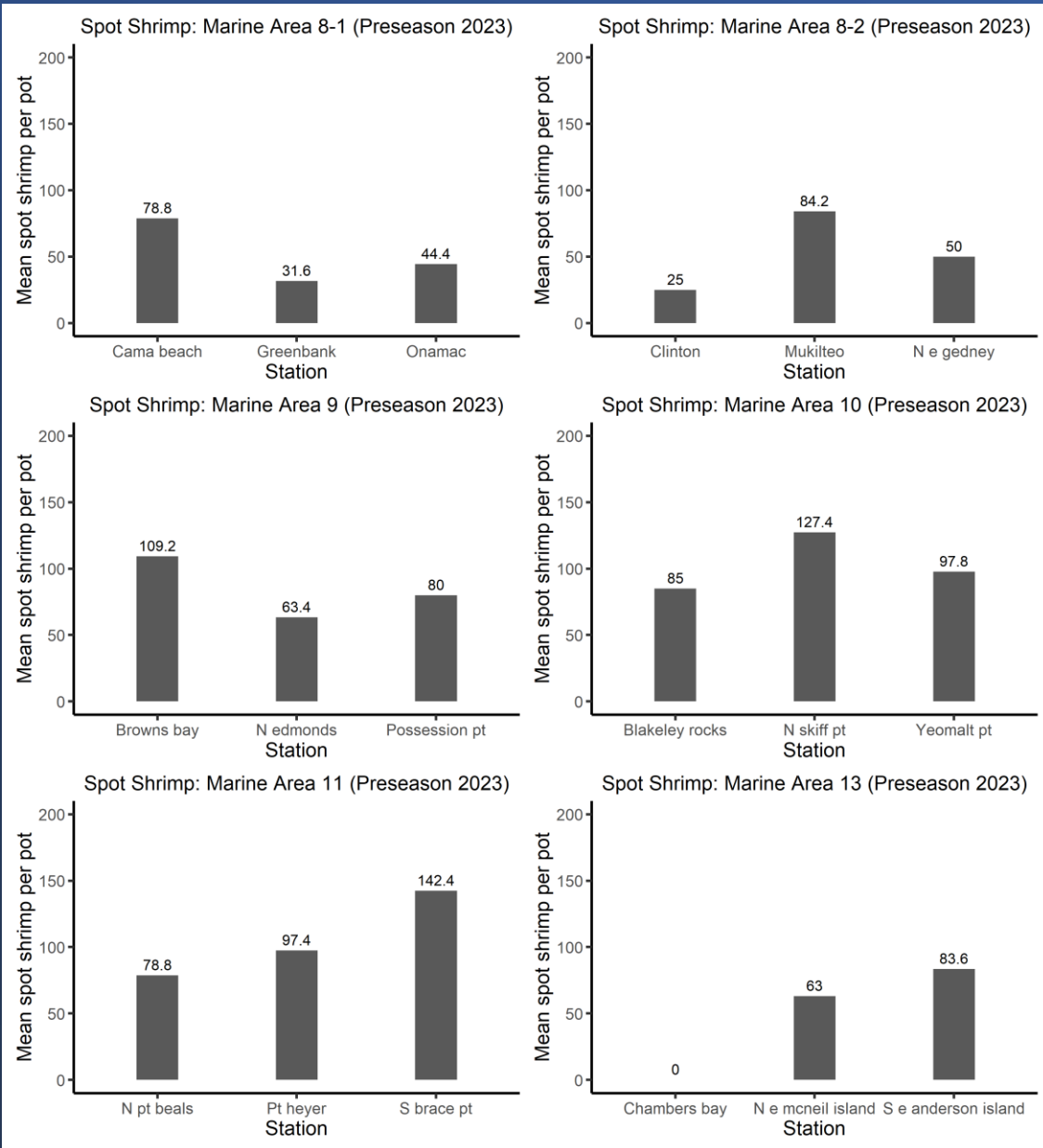
Spot Shrimp: Marine Area 7 (Preseason 2023)



Spot Shrimp: Marine Area 12 (Preseason 2023)



MA 8-1, 8-2, 9, 10, 11, 13 - Counts per pot (left) Pounds per pot (right)





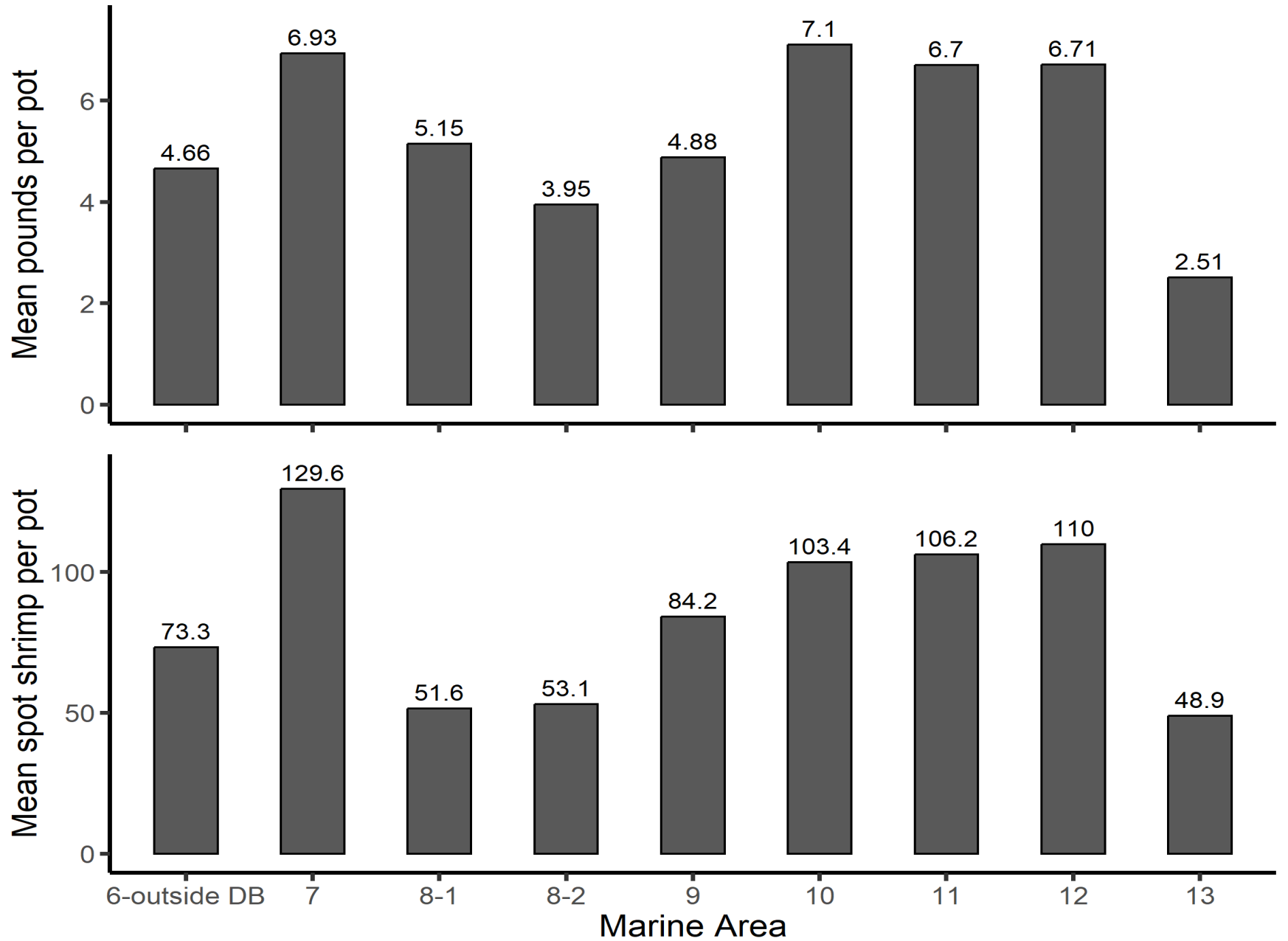
WDFW Shrimp Pre-season Test fishing

All Areas

Pounds per pot (top)

Count per pot (bottom)

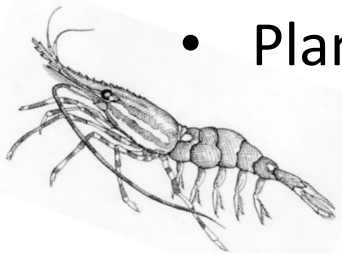
Spot Shrimp (2023 Preseason Test Data)



Management Challenges and Updates into 2023



- Increasing reporting rate for Dungeness Crab Catch Record Cards
 - Increase penalty?
 - Reduce barriers to online reporting
- Can we open Tanner crab during open spot shrimp season?
- Development of the electronic CRC system
- WDFW creel presence/compliance checks at locations OTHER THAN ramps
- Future plans for being able to offer Red Rock crab opportunity only
- Plans to generate estimates for recreational non-spot shrimp fisheries



Adjourn Thank you!

