

Puget Sound Shrimp Fisheries



Aaron Dufault, *Puget Sound Shellfish Program Manager*

Katelyn Bosley, *Puget Sound Crustacean Unit Lead*



Puget Sound Shrimp - Topics

- Policy C-3610 – Puget Sound Shrimp Fishery
- Shrimp Biology & Fisheries Management
- Fisheries Performance & Overview
 - Spot Shrimp
 - Non-spot Shrimp Species Complex
- New and ongoing work



Shrimp Species Harvested by Commercial and Recreational Fisheries



Species: *Pandalus eous*

Common Name: Northern Pink Shrimp

Size: Overall length 4 inches,

Fisheries: commercial trawl



Species: *Pandalus danae*

Common Name: Dock Shrimp, Coonstripe Shrimp

Size: Overall length 5 inches

Fisheries: recreational pot, commercial pot and trawl

Species: *Pandalus hypsinotus*

Common Name: Coonstripe, Humpies

Size: Overall length 7 inches

Fisheries: recreational pot fishery, commercial trawl and pot

Species: *Pandalus platyceros*

Common Name: Spot shrimp

Size: Overall length 10 inches,

Fisheries: recreational and commercial pot



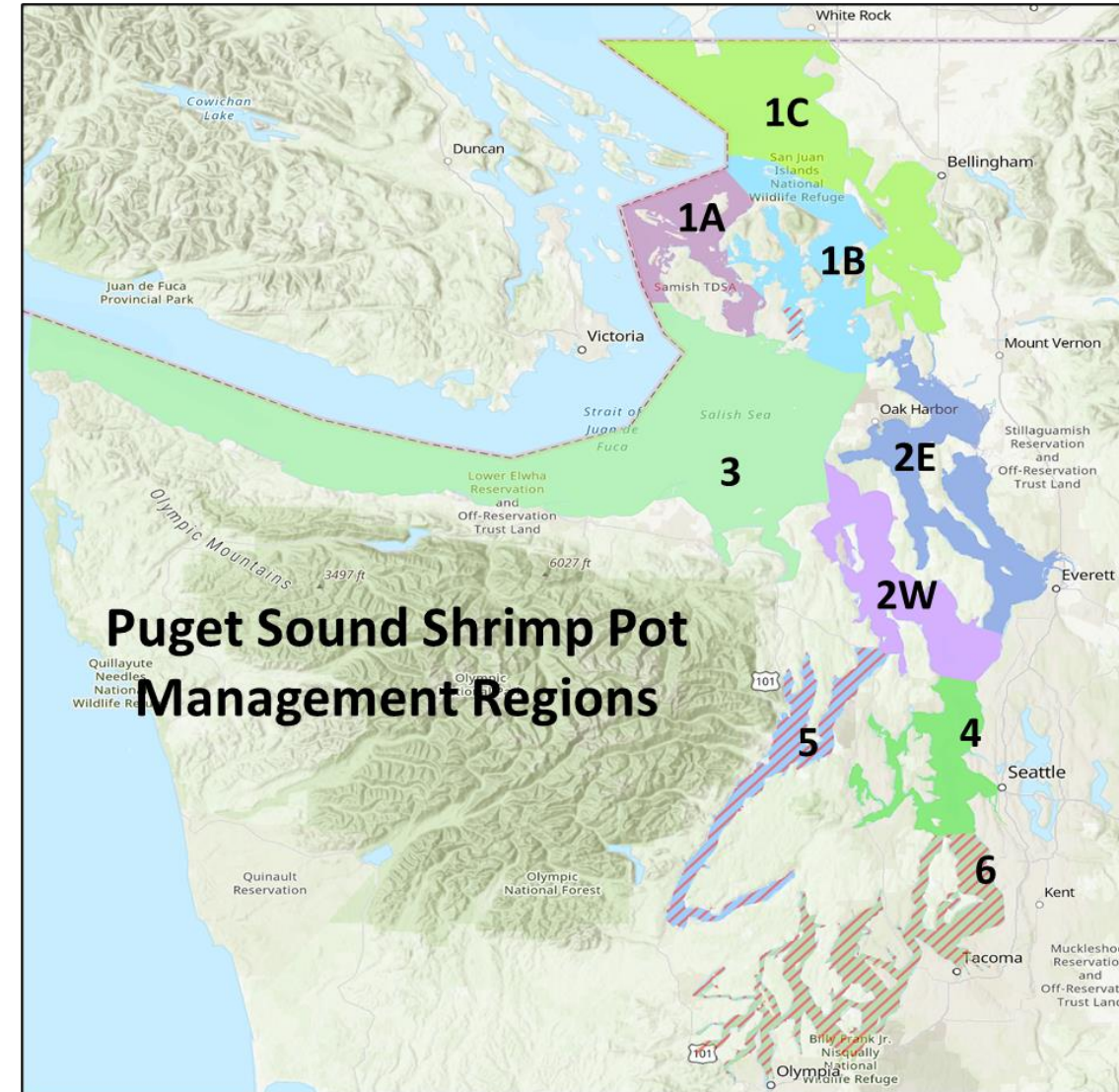
Puget Sound Shrimp Fishery Policy C-3610

- A revised Puget Sound shrimp fishery policy was adopted by the F&W Commission on December 15, 2012;
- The policy provides for recreational and commercial fisheries that are consistent with conservation goals;
- The allocation objective for Puget Sound spot shrimp harvest opportunity is 70% recreational and 30% commercial, taking into account regional differences;
- The management strategy for Puget Sound non-spot shrimp **pot** fisheries is at least 80% commercial and up to 20% recreational opportunity of the state share of the quota;
- The management strategy for Puget Sound non-spot shrimp **trawl** fishery is to restrict commercial fishing to Shrimp Regions 1 and 3.



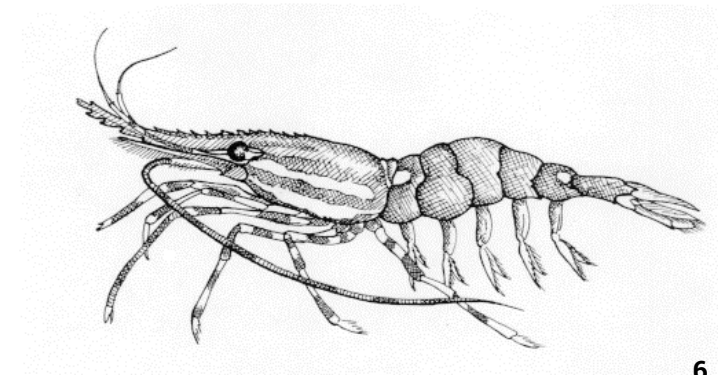
Puget Sound Spot Shrimp Management

- Six management regions
- Policy C-3610 provides commercial and recreational opportunity in Regions 1 and 3. Regions 2E, 2W, 4, 5, and 6 are reserved for recreational opportunity only.
- Annual harvest quotas and regional State/Tribal harvest shares are established annually through co-management agreements.

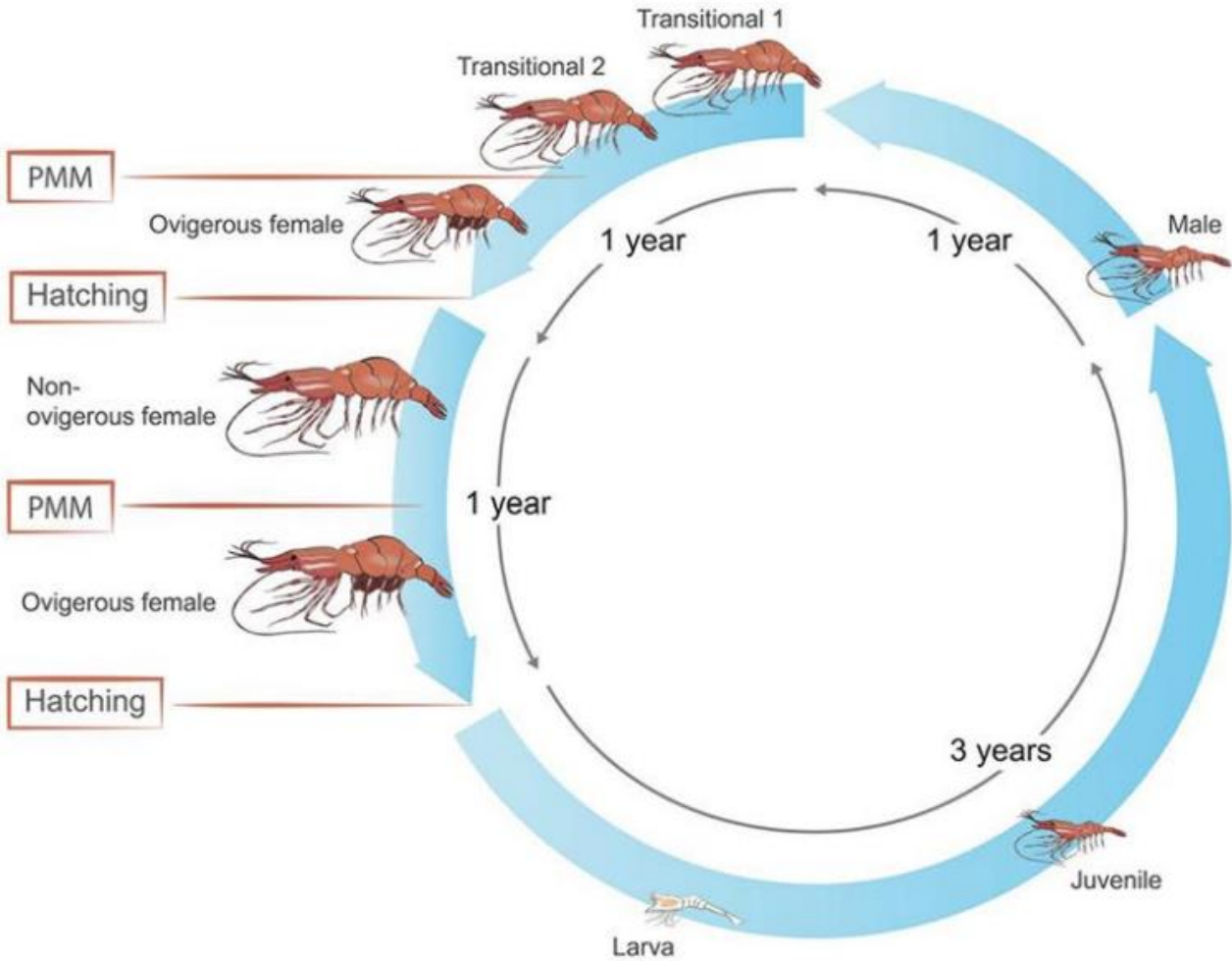




Population Assessment



SPOT SHRIMP LIFE CYCLE



*PMM = pre-mating molt
Levy et al. 2020*

- 5-6 yr lifespan
- Begin life as males
- Transition into females
- Move deeper as they grow



Puget Sound Shrimp Sampling

- Spot shrimp index sites are fished pre- and post-season ***in all marine areas.*** When possible – coordinate with tribal comanagers
- Data collected on catch per pot and bycatch in the field
- Data on shrimp size and sex composition is collected from lab-processed samples
- Until 2023, sampling focused on ***spot shrimp*** only
- Initiated sampling of ***non-spot*** shrimp in 2023



South Sound and Hood Canal Sites



North Sound Sites

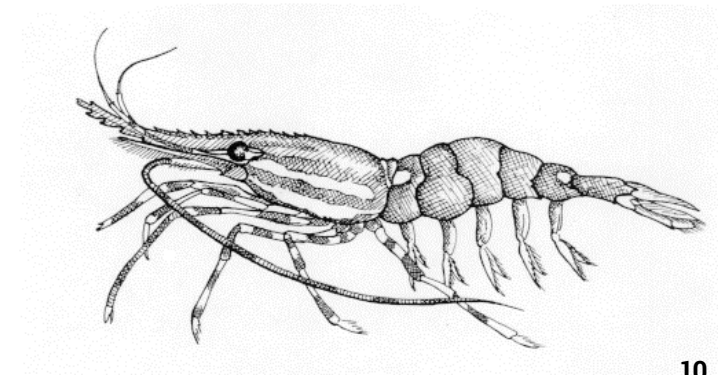


Results are used to inform the suitability of existing quotas and assess resource health

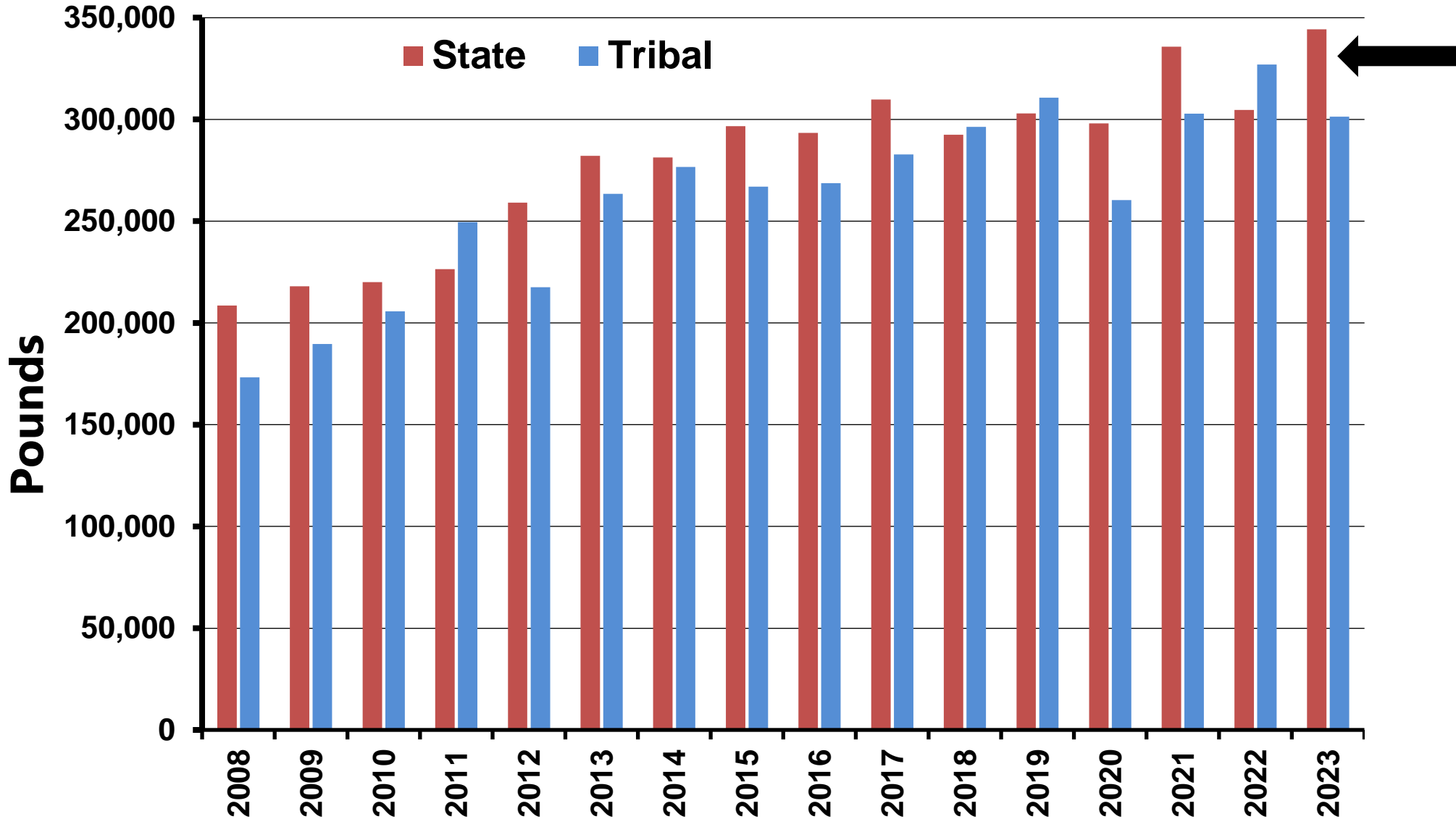




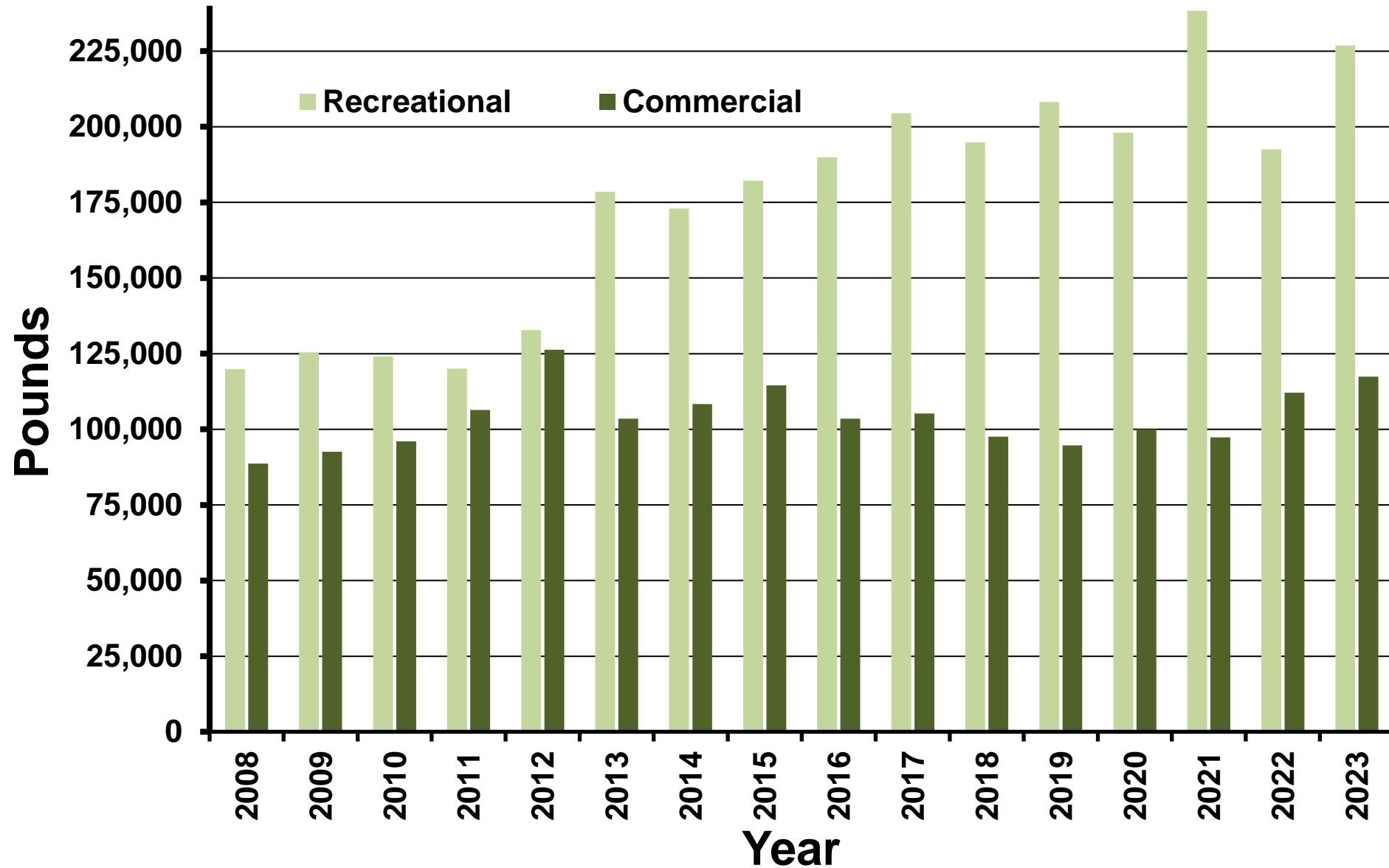
Fishery Performance



State and Tribal Spot Shrimp Harvest (2008-2023)

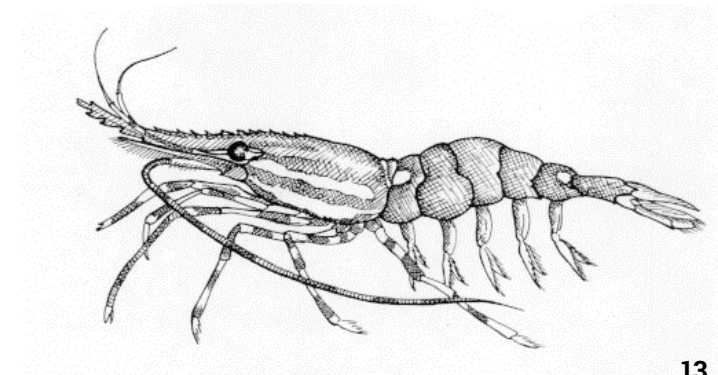


State Spot Shrimp Harvest by Sector (2008-2023)

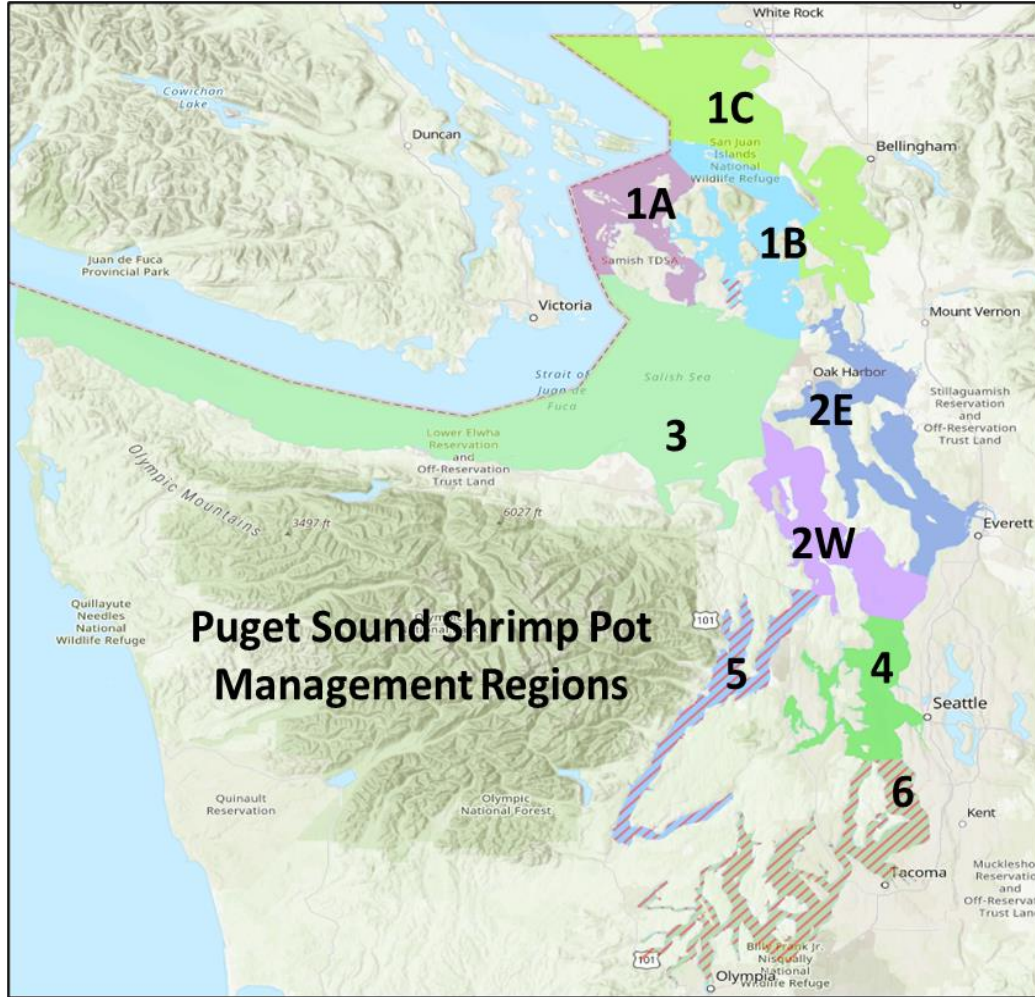




Recreational Spot Shrimp Fisheries



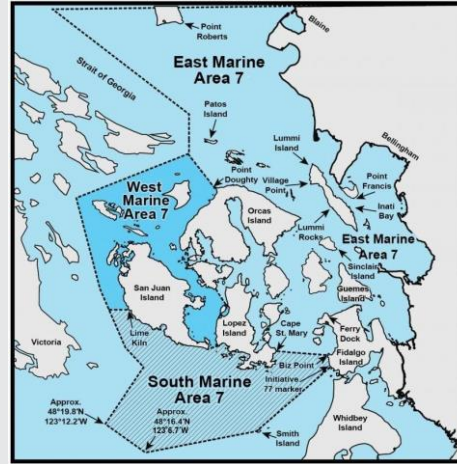
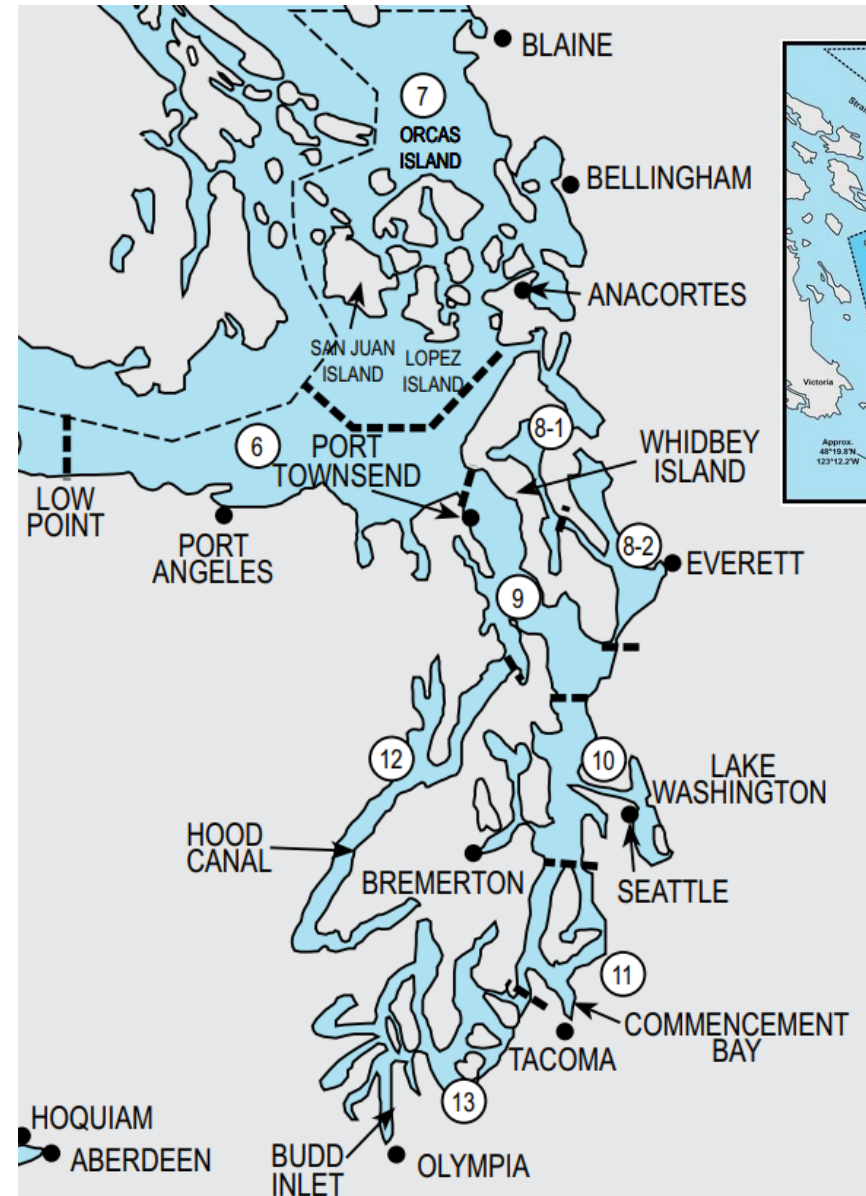
2018-2023 Recreational Spot Shrimp Harvest Allocation by Region



Region	Policy C-3610 Recreational Target %	Actual % Recreational Harvest from Total State Harvest					
		2018	2019	2020	2021	2022	2023
1	80	70	76	76	86	77	80
2	100	100	100	96	95	94	91
3	22	33	31	25	32	29	32
4	100	94	100	100	97	74	93
5	100	96	95	100	100	95	95
6	100	100	100	99	88	89	97
All	70	67	69	66	71	63	66



2021-2023 Recreational Spot Shrimp Harvest Days

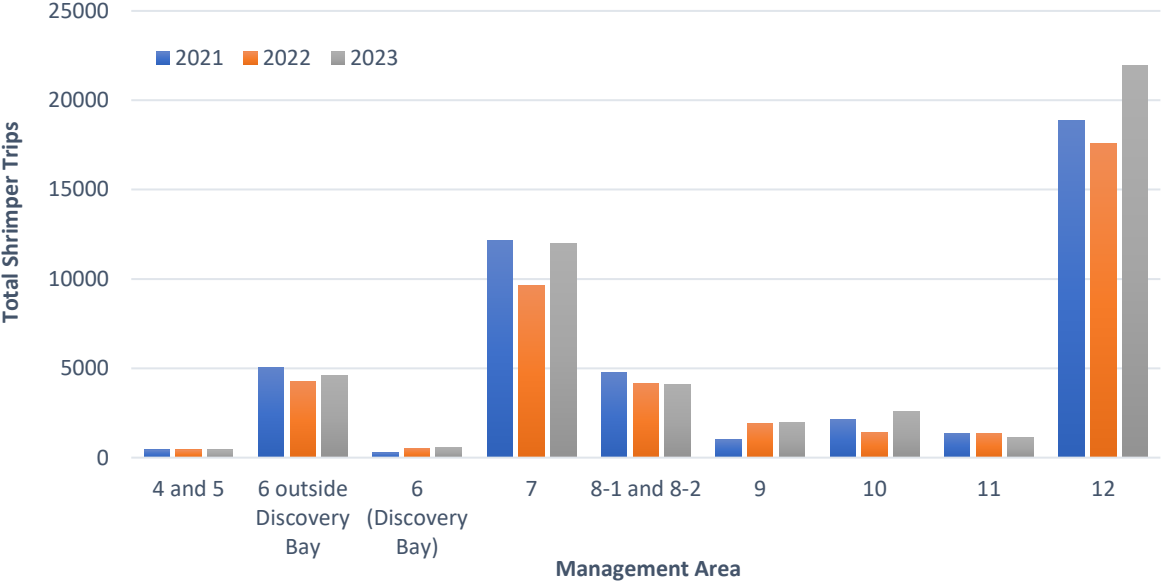


Marine Area	Region	Recreational Days Open		
		2021	2022	2023
6 Disco Bay	3	2	1	3
6 (non-Disco)	3	27	21	19
7 West	1A	20	19	22
7 East	1B, 1C	16	7	7
7 South	3	16	18	18
8-1/8-2	2E	4	3	4
9	2W	2	2	1
10 Elliott Bay	4	1	0	3
10 (non EB)	4	1	1	1
11	6	2	2	2
12	5	5	6	4

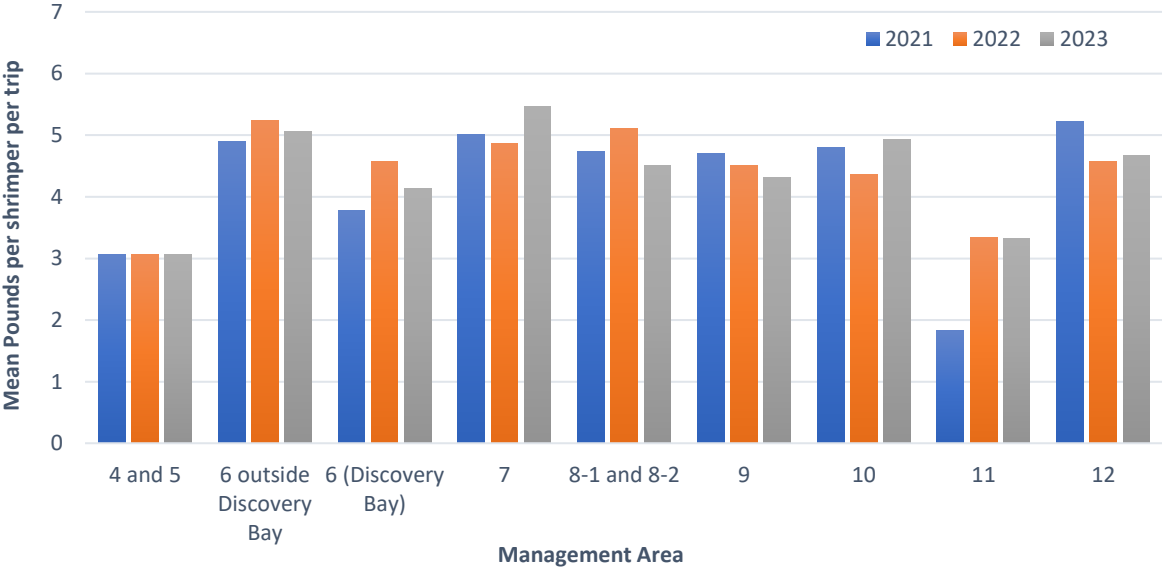


Recreational Spot Shrimp Fisher Trips by Marine Area

Shrimper Trips by Area

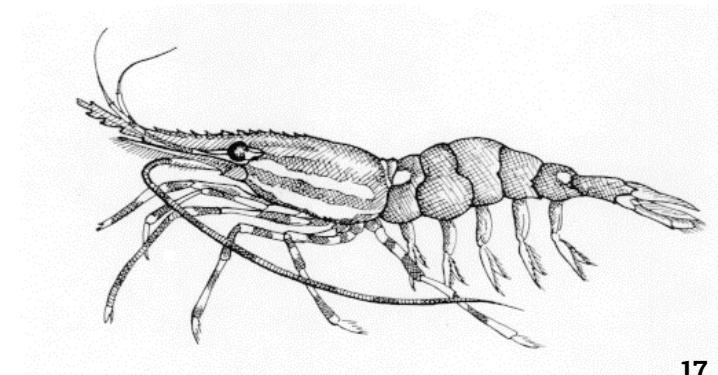


Catch per Unit Effort by Area





Commercial Shrimp Fisheries



Commercial Shrimp Fisheries

- Two limited-entry licenses:
 - Puget Sound Shrimp Pot
 - 18 licenses
 - Puget Sound Shrimp Trawl
 - 5 licenses
- Three shrimp fisheries:
 - Spot Shrimp (pot)
 - Non-spot shrimp (pot)
 - Non-spot shrimp (beam trawl)

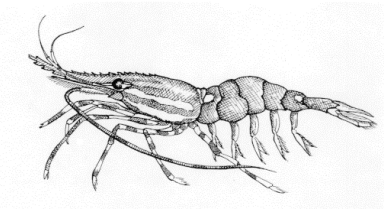


Commercial Shrimp Fisheries

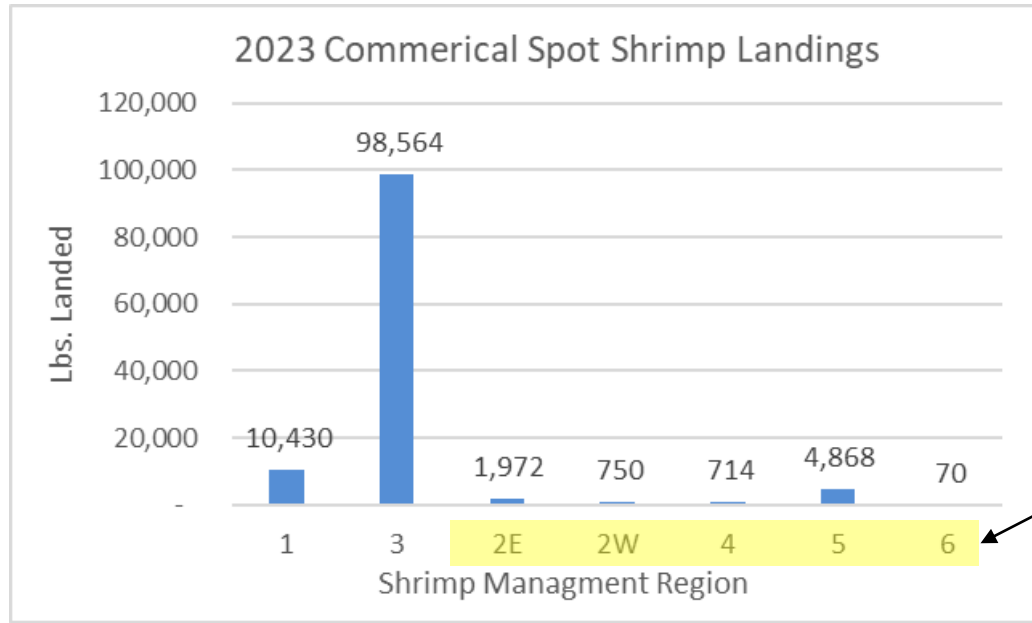
- All landings must be recorded on a Fish Ticket.
- Mandatory Electronic Fish Tickets.
- Season runs from May 1 through October 15
 - Varies by Region and Fishery



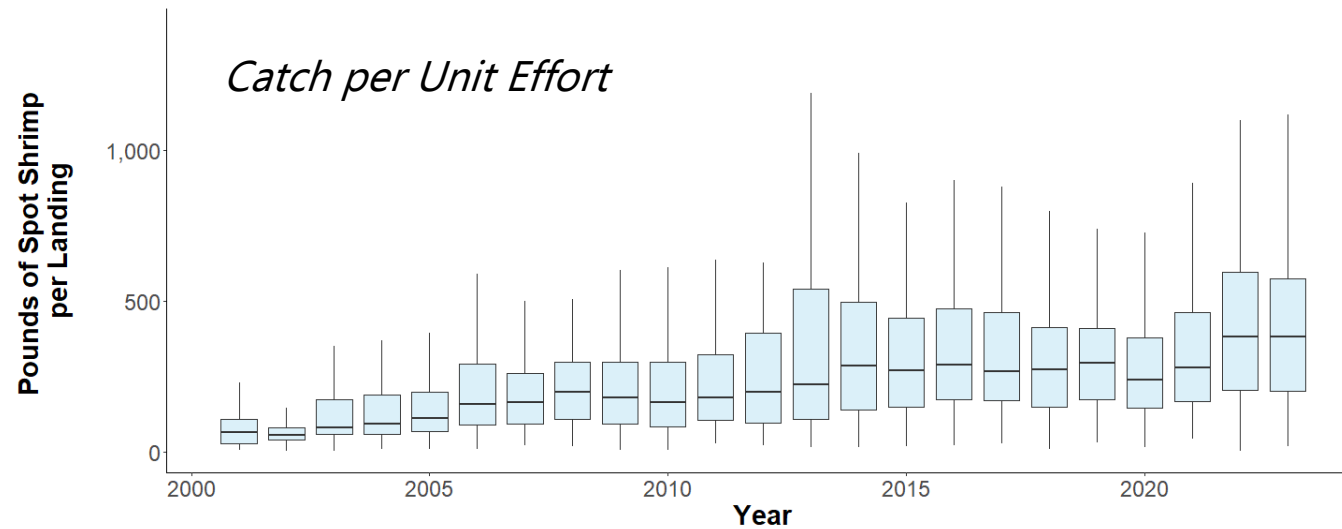
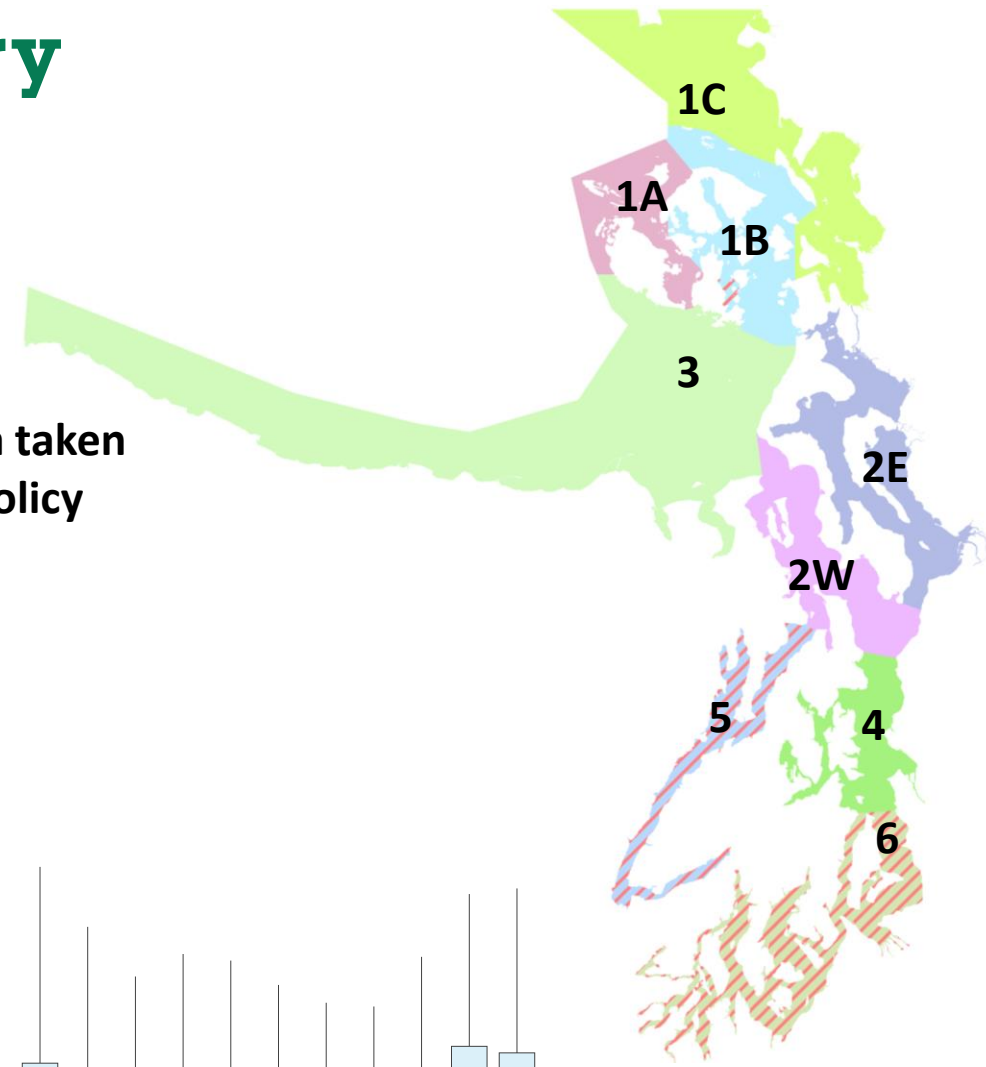
WaTix



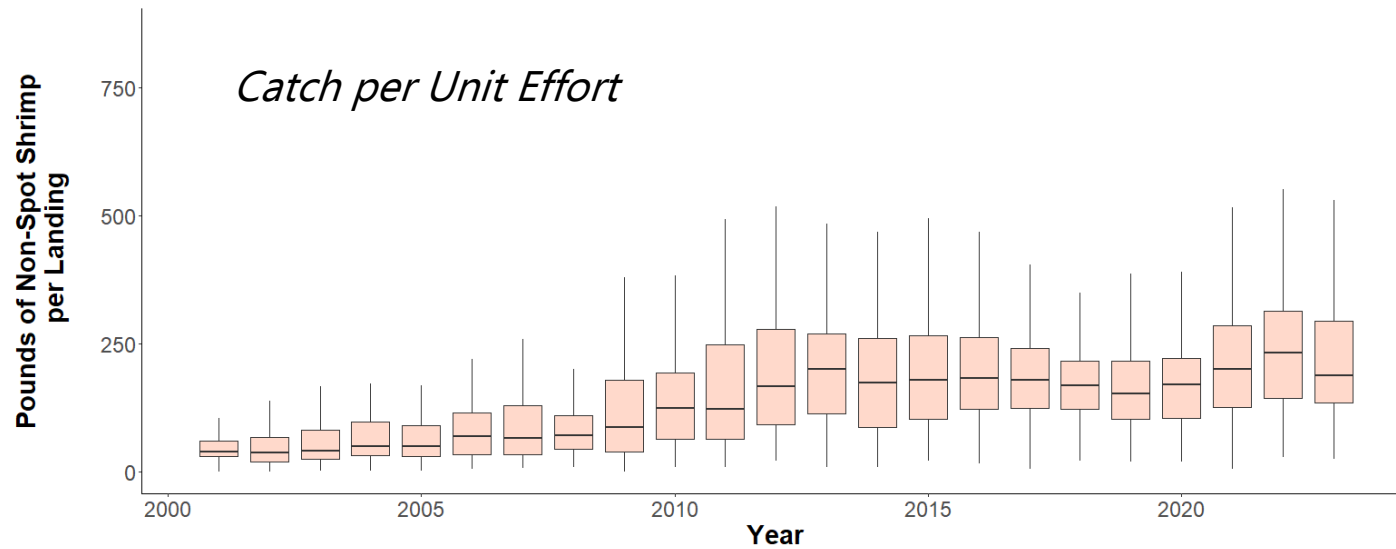
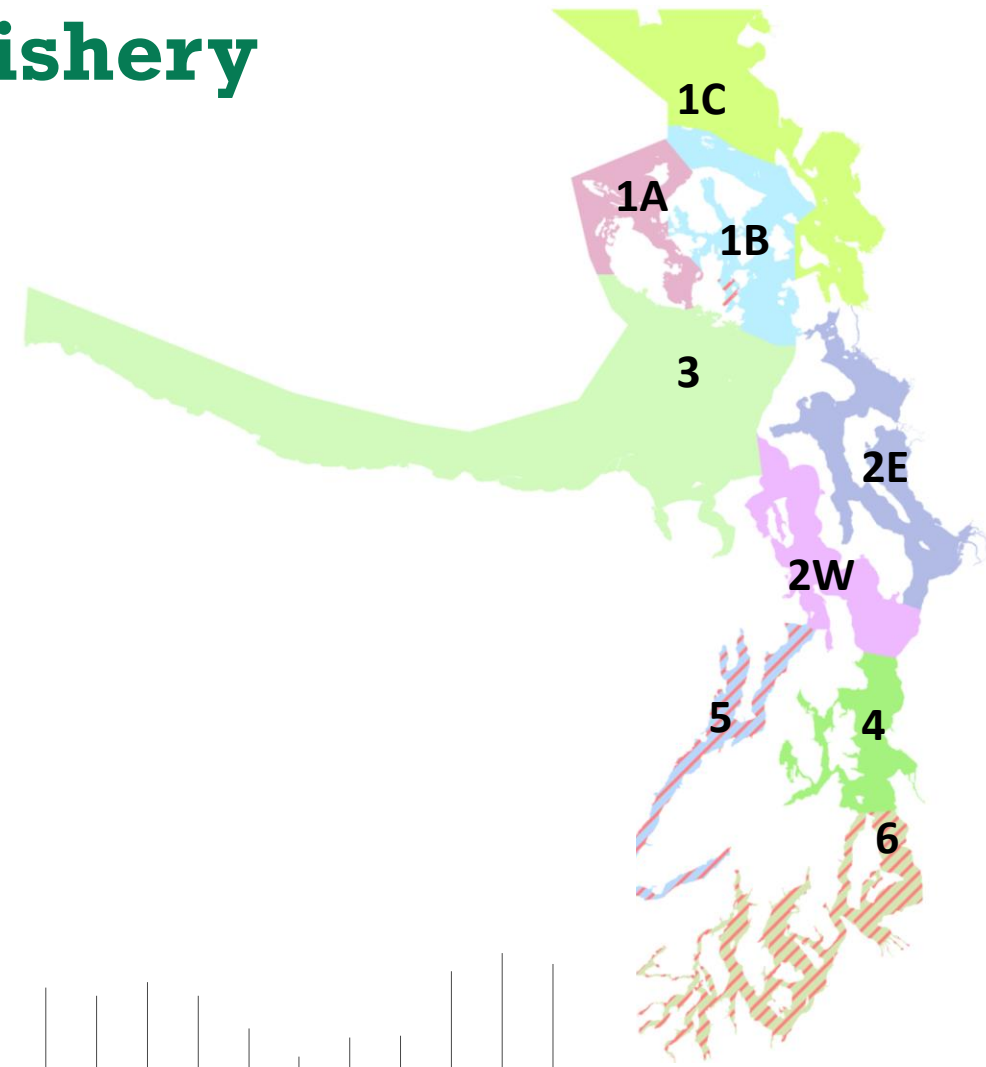
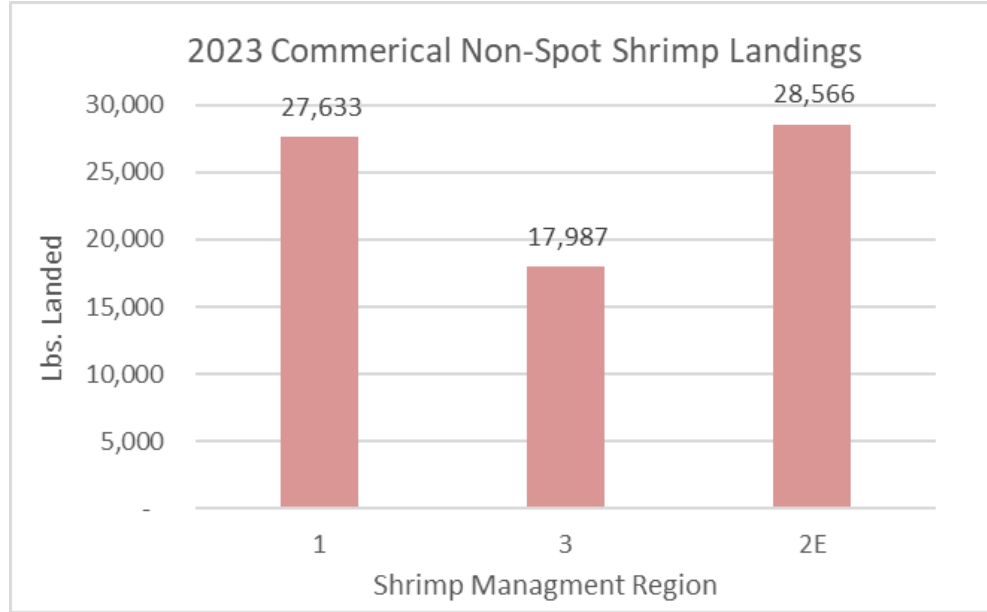
Commercial Spot Shrimp Pot Fishery



Remaining quota taken according to policy

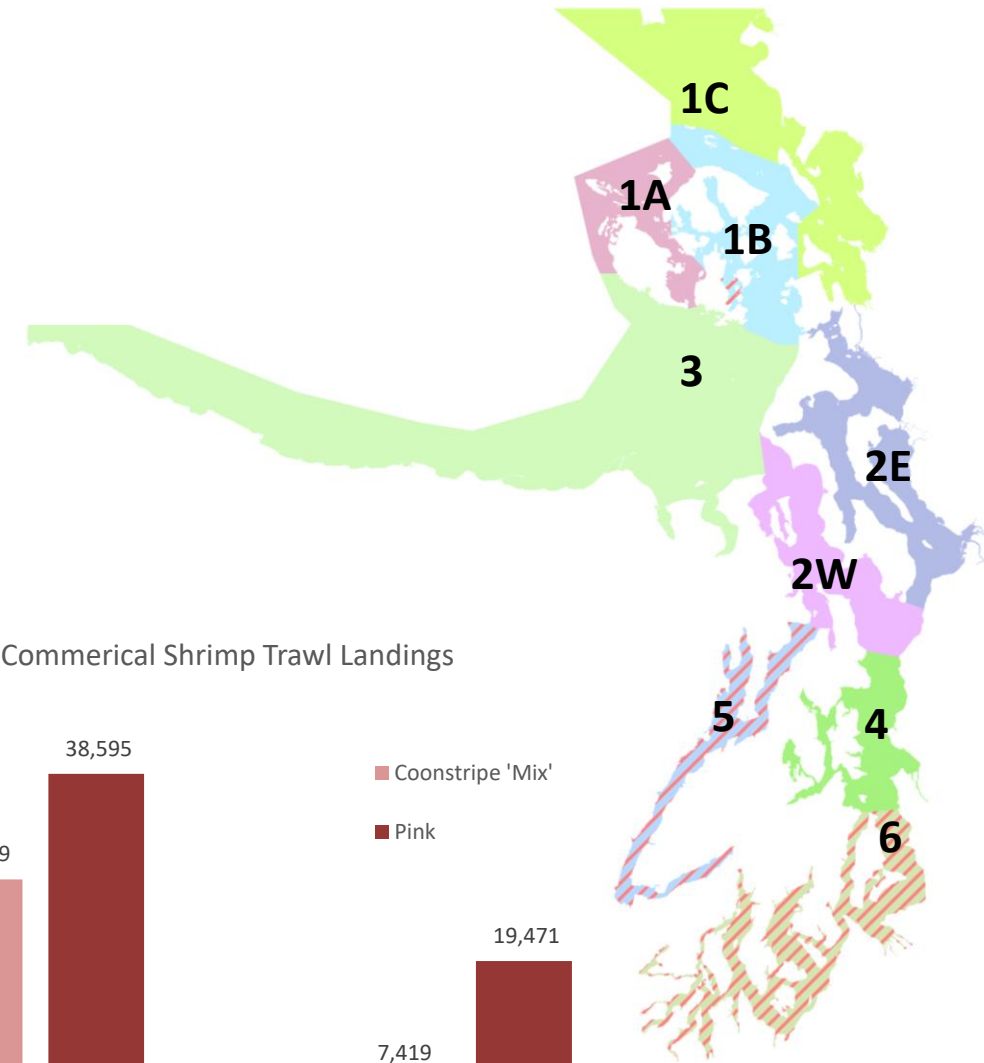


Commercial Non-spot Shrimp Pot Fishery

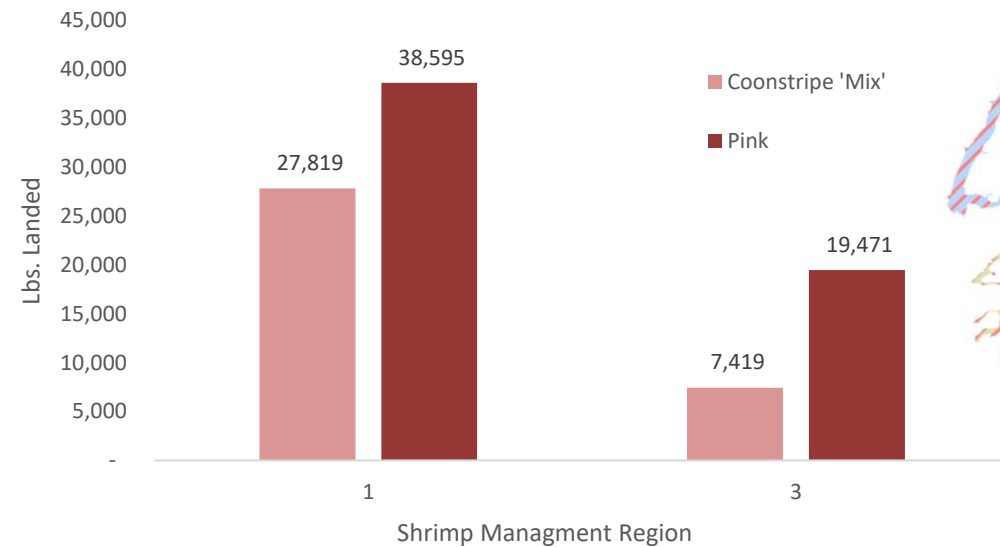


Non-Spot Shrimp Trawl Fishery

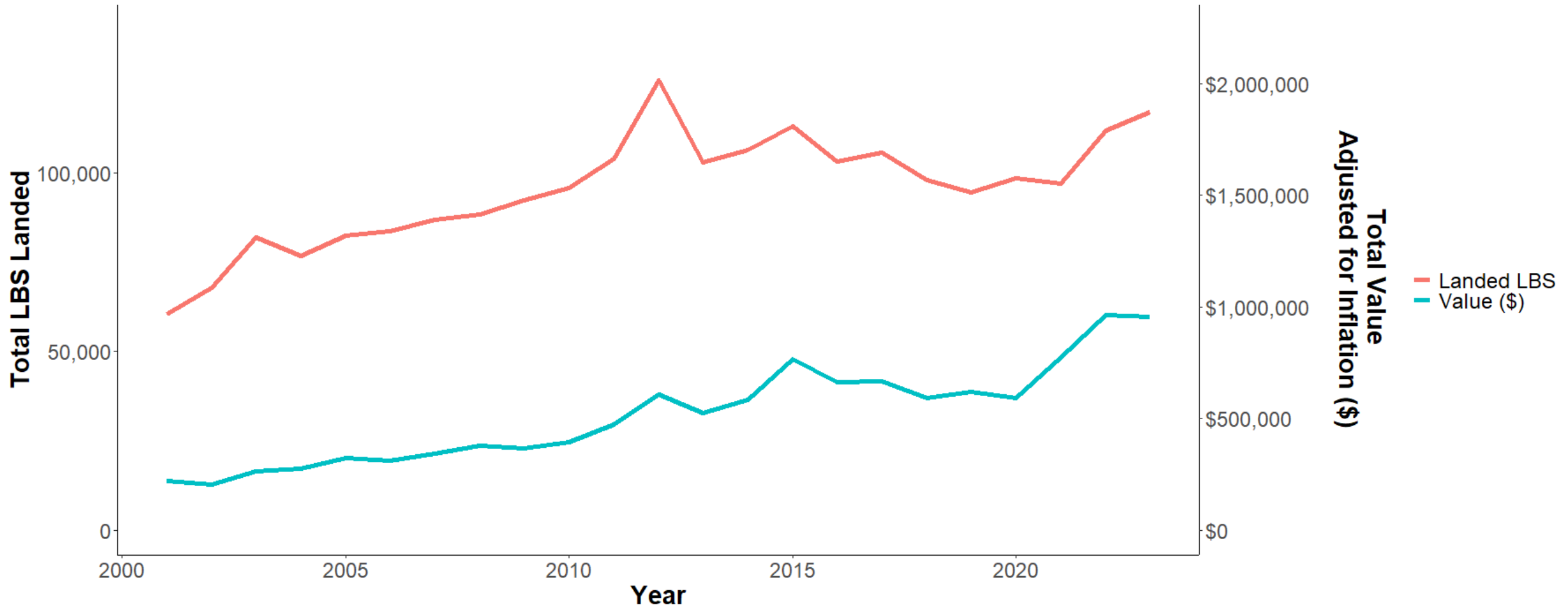
- Fishery restricted to **portions of regions 1 and 3 only**
- Treaty tribes have not participated
- Not allowed to retain spot shrimp
- Bycatch observer program for ESA-listed species initiated in 2011
- Bycatch excluder device installed on one vessels targeting pink shrimp



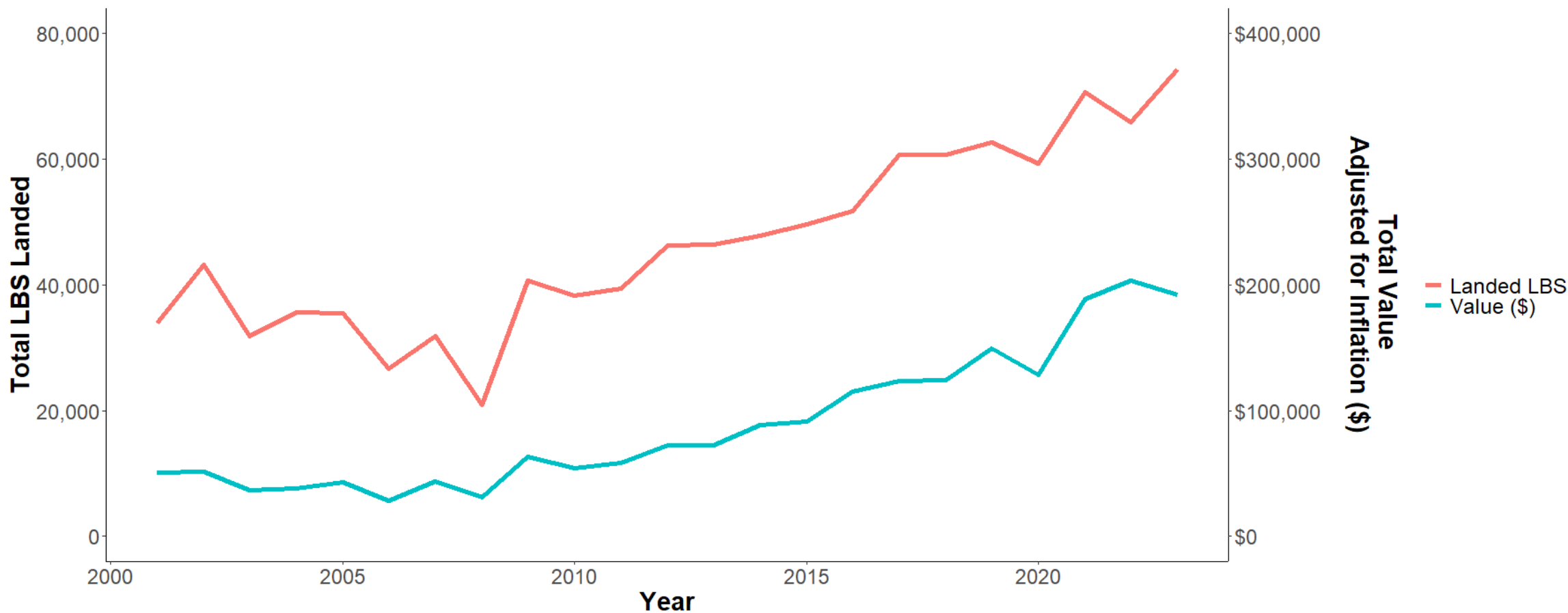
2023 Commerical Shrimp Trawl Landings



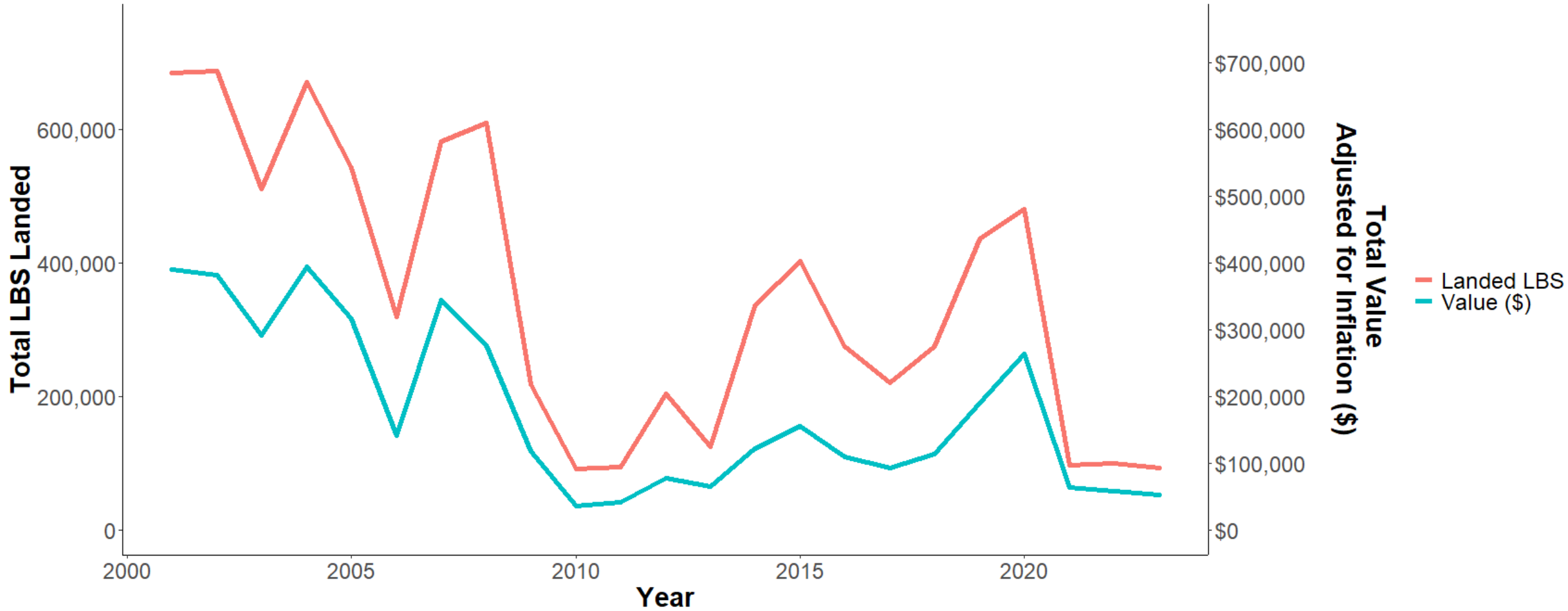
Total Ex-Vessel Landing Values for the Puget Sound State Commercial Spot Shrimp Fishery 2000-2023



Total Ex-Vessel Landing Values for the Puget Sound State Commercial Non-Spot Shrimp Fishery 2000-2023

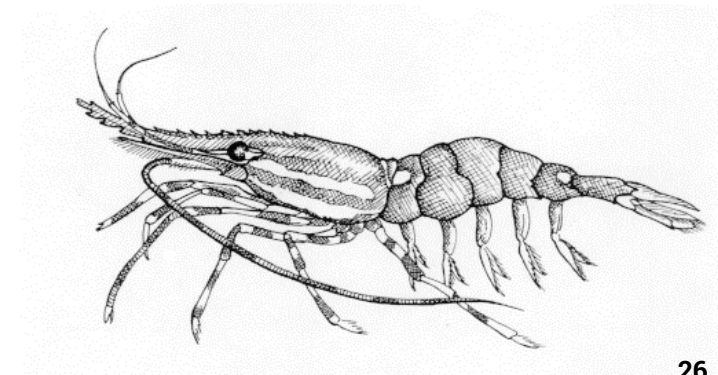


Total Ex-Vessel Landing Values for the Puget Sound State Commercial Shrimp Trawl Fishery 2000-2023





New and Ongoing Work



New and Ongoing Work - Highlights

New legislative dollars put to work

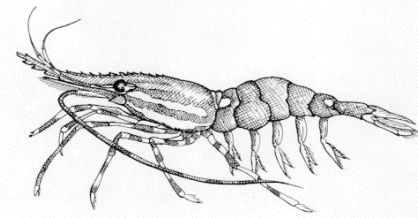
- **Increased commercial fishery monitoring**
 - with new staff, we are increasing our commercial monitoring presence
- **Incidental Take Permit (ITP)**
 - in the process of seeking incidental take coverage for state shrimp fisheries
- **Pilot non-spot shrimp survey**
 - population assessments (test fishing) have traditionally focused on spot shrimp
- **Improved recreational harvest estimation**

Stakeholder engagement

- **Legislative proposal**
 - Worked with stakeholders on legislation to convert shrimp trawl licenses to pot licenses (address policy provision 10)



Summary



- The Puget Sound shrimp fisheries are popular, valuable and hold economic and cultural importance to the citizens of Washington.
- The current fishery management structure is sufficient for meeting conservation objectives and adhering to the policy guidelines.
- Able to offer a consistent and high-quality fishery opportunity for recreational and commercial harvesters annually.
- Recent budget enhancements have allowed expansion of work into areas that were previously lacking.
- The PS shellfish team will continue to seek opportunities to further improve harvest monitoring and invest in fishery research to support comanagement and resource sustainability.



Questions?

