

STATUS AND MANAGEMENT OF OREGON STEELHEAD STOCKS

TOM FRIESEN AND JAMIE ANTHONY ODFW CONSERVATION AND RECOVERY PROGRAM Pacific Coast Steelhea Management Meeting



March 16, 2021



STEELHEAD BIOLC

Winter Steelhead

- Return: November to April
- Spawn: December to May

Summer Steelhead

- Return: March to September
- Spawn: December to February

Age Composition

- 1 3 Years Freshwater Rearing
- 1 3 Years Ocean Rearing
- Most mature at 4 5 years





STEELHEAD FISHERIES

- Hatchery Programs
- Wild Harvest Opportunity
 - No directed ocean commercial fisheries; only minor incidental take
 - Columbia River Tribal Fisheries
 - Summer Steelhead No Wild Harvest
 - •Configter Steelhead Limited Wild Salmon River, Big Elk Creek, East Fork Coquille River, Sixes River



Rogue-South Coast

Elk River, Euchre Creek, Hunter Creek, Pistol River, Chetco River, Winchuck River, Illinois River, Rogue River



SPECIES MANAGEMENT UNITS (SMU)

Nine Extant SMUs in Oregon:

- 1. Coastal (Summer)
- 2. Coastal (Winter)
- 3. Rogue (Summer)
- 4. Rogue-South Coast (Winter)
- 5. Lower Columbia (Summer)
- 6. Lower Columbia (Winter)
- 7. Upper Willamette (Winter)
- 8. Middle Columbia (Summer)
- 9. Snake (Summer)









COASTAL MULTI-SPECIES CONSERVATION AND MANAGEMENT PLAN (CMP)

Winter Steelhead Summer Steelhead Fall Chinook Salmon Spring Chinook Salmon Chum Salmon Coastal Cutthroat Trout

Current & Desired Status Hatcheries • Harvest • Predation • Habitat Monitoring & Implementation

Adopted June 2014

Coastal Multi-Species Conservation and Management Plan

OREGON DEPARTMENT OF FISH AND WILDLIFE

Approved by the Oregon Fish and Wildlife Commission: June 6, 2014

ODFW Mission To protect and enhance Oregon's fish and wildlife and their habitats for use and enjoyment by present and future generations



COASTAL MULTI-SPECIES CONSERVATION AND MANAGEMENT



<u>Coastal Winter Steelhead</u> Strong-Guarded

Hatchery Program Adjustments Limited Wild Harvest Opportunity

<u>Coastal Summer Steelhead</u> Sensitive-Vulnerable

Hatchery Program Adjustments No Wild Harvest Opportunity





WINTER STEELHEAD COASTAL SPECIES MANAGEMENT UNIT

Adults

R d Surveys – ~160 sites/year; 14-day rotation In ex Redd Survey – Salmonberry Subpopulation Filed Site – Winchester Dam (North Umpqua) Filed Site – Life Cycle Monitoring

Juveniles

Ebrkel Surveys – ~160 sites/year SMU-wide FOed Site – Life Cycle Monitoring





WINTER STEELHEAD COASTAL SPECIES MANAGEMENT UNIT



2020	Post-CMP	Pre-CMP
Abundance	Average	10-yr Average
109,462	97,337	111,949





CMP MANAGEMENT STRATA







CMP MANAGEMENT STRATA







NORTH COAST STRATUM Salmonberry Subpopulation (Nehalem)



1,682





UMPQUA STRATUM North Umpqua Population



2020	Post-CMP	Pre-CMP
Abundance	Average	10-yr Average
9,960	10,157	8,848





COASTAL SUMMER STEELHEAD SMU

Siletz & North Umpqua Populations

Adults

Fix d Site – Siletz Falls (Siletz) Fix d Site – Winchester Dam (North Umpqua) Holding Pools – Rock Creek & Steamboat/Canton Sub-basins

Juveniles

■r●rkel Surveys (SMU-wide, Winter + Summer)







COASTAL SUMMER STEELHEAD SMU Siletz & North Umpgua Populations







New Wild Harvest Opportunities in CMP

Salmon River Population Big Elk Creek Management Area (Yaquina) East Fork Coquille Management Area

Continuing Wild Harvest Opportunity in CMP Sixes River Population

Monitoring & Conservation Triggers

Stratum Critical Abundance (2 Consecutive Years) Harvest Rates (<10%)





Harvest Cards Creel/SGS --- Allowable Harvest (<10%)</p>



Rogue-South Coast Multi-Species CONSERVATION and MANAGEMENT PLAN

Winter Steelhead Summer Steelhead Coho Salmon Coastal Cutthroat Trout

Current & Desired Status Hatcheries • Harvest • Predation • Habitat Monitoring & Implementation

Draft in Review, Winter 2021





Rogue/Rogue-South Coast Summer and Winter Steelhead

Conservation Planning

Rogue-South Coast Multi-Species Conservation and Management Plan

Status (Rogue-South Coast Winter)

Federal – Not Listed State – Strong-Guarded (Draft Assessment)

Status (Rogue Summer)

Federal – Not Listed State – Sensitive (Draft Assessment)

Current Wild Harvest Opportunity

Summer - None Winter - Elk, Euchre, Hunter, Pistol, Chetco, Winchuck, Illinois, Rogue





ROGUE/ROGUE-SOUTH COAST Current & Proposed Steelhead Monitoring



Juvenile Steelhead Rogue (Summer + Winter) Coastal Basins (Winter)

Rogue Stratum



Rogue Stratum Coastal Stratum



Proposed Additions Include:

Late-Run Summer Adults Additional Spawning Surveys Half-Pounders

- Investigate Site Counts (sonar/trap)
- Harvest/Creel •
- Temperature/Flow

In Development/May Need Additional Funding



ROGUE/ROGUE-SOUTH COAST Huntley Park Seine









Wild Harvest Management (In Deve

Current Low Harvest Rates

- < 15%, most well under 10%
- Sixes (Coastal SMU, 6% in 2020)

Ongoing Discussions Include:

- New Authorizations
- **Revised Angling Regulations** •
- Adaptive Control Mechanisms
 - **Conservation Status & Forecast Metrics**
 - Harvest Rates
- Monitoring





Upper Willamette River Winter SMU









Snake River Summer SMU Grande Ronde River, Upper Mainstem







Middle Fork, North Fork, South Fork John Der River



Natural-Origin Spawner Abundance



Climate/Ocean Change

- Limiting Factors
- Management Actions
- Desired Status Goals
- Avoid Impacts to Sensitive Life History/Run Components (e.g., Season Timing)
- Risk Management
 - Scale Use/Adaptive Management
 - Conservation Triggers
 - Pre-season Harvest Adjustment (Sliding Scale)
 - In-season adjustment based on

Utilization is dependent on the health of wild populations

Engagement is a Critical Conservation Tool



OCEAN CONDITIONS





Middle- 48% Rogue & Increase in Applega^{Unsuitable Conditions} te

Hunter Creek 0% Increase in Unsuitable Conditions





Changes CAN be managed



Wondzell et al. 2019. J. Am. Water Res. 55: 116-132



The future CAN be ch

Focus on **habitat** to prevent declines in carrying capacity and allow behavioral adaptation

Interagency Coordination

Prioritized Restoration and Protection

Monitoring and Forecast Tools





Contemporary Challenges and Issues for Oregon Steelhead

Predation

see Payton et al., 9:00 Thursday and

Wright and Steingass, 9:20 Thursday

- Dams and Passage see Cogliati et al., 9:40 Thursday
- Ocean Conditions see Daly et al., 10:00 Thursday
- Information Needs see Whitman et al., 10:20 Thursday







Status of Steelhead in Oregon

Acknowledgments

- Courtney Zambory
- Kasey Bliesner
- Adrienne Averett
- Mark Lewis and staff
- Matt Falcy
- Phil Simpson





Questions?