Columbia River Commercial Advisor Group Meeting

February 10, 2021
10:00a-12:30p
Virtual

Prepared by: Columbia River Joint Staff

Columbia River Commercial Advisor Group Meeting

Virtual

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Phone Conference ID: 752 590 468#

10:00a – 12:30p February 10, 2021

Agenda	
Introduction o Roll call o Ground rules o Agenda review	(15 minutes)
Derelict Gear (WA/GJ)	(10 minutes)
Fall Tangle Net (OR)	(30 minutes)
Summer – Mark Selective (WA)	(20 minutes)
Electronic Monitoring (WA)	(20 minutes)
Commercial License Reduction Workgroup (WA)	(20 minutes)
Additional Topics o Other/General discussion o Coho forecast o Alternative Gear Advisory Board update (WA)	(30 minutes)
Future Meetings o Compact (Select Area Commercial), February 16, 10 am o Joint State Hearing, February 23, 10 am o North of Falcon Forecast meeting (WA), February 26 o North of Falcon #1, March 17, 10 am o North of Falcon #2, April 1, 10 am	(5 minutes)

Ground rules

- Focus on the task at hand – *stick to the agenda*
- One person at a time to speak – *speak your name to be added to the speaking list*
    - Non-advisers will observe meeting and stay on mute – *comments may be permitted at the end of the meeting if time permits*
- Be respectful of others
    - Mute phone or line
    - Be tough on issues and questions, not on people or organizations
    - No personal attacks, insults or threats
    - Listen
    - Speak and act professional – *no offensive, disrespectful, or derogatory language, including profanity*
    - Allow for a balance of speaking time – *limit length and number of times to speak on each topic*
- Be a conduit – *share information*

Derelict Gear (WA/Greg Johnson)

Discussion

Fall Tangle Net (OR)

2009-2011 Feasibility

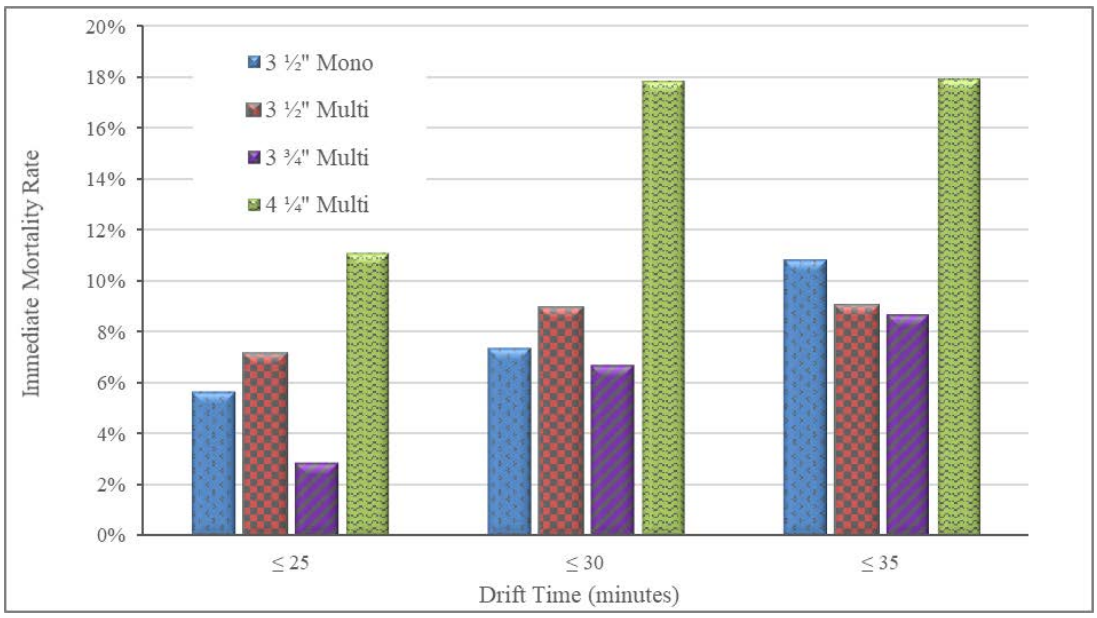
- Annual evaluations of net types and soak times; 2-5 fishers, 7-16 d/year, 4 drifts/d.
- Focus on October due to cooler water and high late stock mark rates.
- Mesh types included 3½-inch mono, 3½-inch multi, 3¾-inch multi, or 4¼-inch multi.
- Each net consisted of two 75-fathom shackles of random mesh type. Nets rotated throughout day.
- 10-20 min set times (25-35 min drift/soak times).
- Zones 1-2; 204 fisher days; 838 drifts.
- Coho mark rates averaged 77% (range 69-80%). Low bycatch of steelhead and chum.

Fall tangle net evaluation test fishing summary, 2009-2011

Year	Gear	Fisher-Days	Drifts	Avg Water Temp °F	Adult Coho		Coho Mark Rate	Mkd Adult COH/Drift	Adult Chinook	Steelhead	Mkd COH/ Steelhead	Chum	Mkd COH/ Chum
					Marked	Unmarked							
2009	3 1/2" Mono	14	56	59	96	26	79%	1.7	2	0	--	2	48.0
	4 1/4" Multi	14	56	59	141	35	80%	2.5	2	2	70.5	5	28.2
	Subtotal	28	112	59	237	61	80%	2.1	4	2	118.5	7	33.9
2010	3 1/2" Mono	48	204	60	269	77	78%	1.3	8	4	67.3	15	17.9
	3 1/2" Multi	19	83	60	36	16	69%	0.4	2	0	--	3	12.0
	3 3/4" Multi	29	121	60	162	51	76%	1.3	6	1	162.0	8	20.3
	Subtotal	96	408	60	467	144	76%	1.1	16	5	93.4	26	18.0
2011	3 1/2" Mono	40	159	61	130	47	73%	0.8	18	4	32.5	1	130.0
	3 1/2" Multi	40	159	61	102	28	78%	0.6	8	3	34.0	0	--
	Subtotal	80	318	61	232	75	76%	0.7	26	7	33.1	1	232.0
Total		204	838	60	936	280	77%	1.1	46	14	66.9	34	27.5

**Table does not include any fish whose life stage or fin mark status could not be determined.*

- Most adult fish caught by tangling. Recovery box improved condition prior to release.
- 3.75-inch multi had lowest observed immediate mortality (8% ave). 3.5-inch mono=10%, 4.25-inch=15%.
- All gear types exhibited an increased mortality rate as drift time increased.



Comparison of adult Coho immediate mortality rates by tangle net mesh size/type and drift time, 2009-2011.

- Although CPUE wasn't great (1.1 marked COH/drift ave), gear appeared to have potential based on high mark rates, low bycatch, decent immediate survival, and relatively low investment cost.

2015-2016 Holding Study

- Total release mortality needed to manage fishery.
- Conducted net pen holding study at Tongue Point to determine long term mortality rate.
- Two fishers/year, 16-21 days/fisher (9/30-11/6 in 2015; 9/25-10/22 in 2016).
- 2-day holding for short-term, 8-day holding for long term mortality.

Fall tangle net mortality test fishing summary, 2015-2016

					Average	Coho		Chinook			
			Fisher-		Water						
Year	Week	Dates	Days	Drifts	Temp F	Adults	Jacks	Adults	Jacks	Steelhead	Chum
2015	40	Sep 30 - Oct 1	4	24	65	46	24	11	9	5	0
	41	Oct 7 - Oct 11	8	49	64	22	11	1	2	0	0
	42	Oct 13 - Oct 17	9	54	62	151	107	2	0	1	3
	43	Oct 18 - Oct 24	11	69	62	85	54	0	0	0	2
	44	Oct 26 - Oct 28	3	18	60	54	40	0	0	0	2
	45	Nov 2 - Nov 6	7	42	58	20	14	0	1	0	14
	Total		42	256	62	378	250	14	12	6	21
2016	39/40	Sep 25 - Sep 30	8	48	65	56	152	4	1	1	0
	41	Oct 4 - Oct 7	8	49	61	100	208	0	0	0	0
	42	Oct 12 - Oct 16	6	34	59	110	225	0	0	0	1
	43	Oct 18 - Oct 22	9	62	58	77	130	0	0	1	4
	Total		31	193	61	343	715	4	1	2	5

Table 1. Estimated mortality rates for adult Coho caught and released from tangle nets in the lower Columbia River, 2015-2016.

	Immediate[1]	Short-Term		Long-Term		Cumulative[2]
	%	n	%	n	%	%
2015	12.5%	265	7.5%	61	4.9%	23.0%
2016	12.5%	269	8.2%	71	5.6%	24.2%
Avg						23.6%

[1] Average immediate mortality rate (weighted by sample size) from observation of Coho tangle net fisheries during 2013-2015 (range 6.9% - 14.5%; n = 727 for all years combined).

[2] Calculated by multiplying immediate, short-term, and long-term survival rates (1 - mortality rate).

Fishery Implementation (2013+)

- Implemented fishery in 2013 as part of Harvest Reform but implementation was already progressing.
- Picked 3.75-inch multi primarily due to lowest mortality rate and inconclusive CPUE results.
- Picked 30 min soak/drift time to balance fishing logistics and mortality.
- Limited to Zones 1-3 (same as past coho-directed).
- Fisheries occurred in 2013-2015, 2019, and 2020.
- Actual catches generally track returns although average participation has declined recently.
- Not very feasible on low return years.

Fall tangle net fishery summary, 2013-2015, 2019-2020.

			Landings [2]			Adult COH Return	
Year	Days Fished	Avg Vessels/ Period [1]	Coho	Chinook	Coho Mark Rate	Lates	Total
2013	8	22	4,833	1,862	77%	94.9	252.8
2014	9	27	18,321	1,997	83%	397.2	1,020.5
2015	3	35	993	1,893	67%	51.8	169.6
2019	11	17	2,492	676	79%	28.9	210.1
2020 [3]	14	14	4,974	911	75%	~90?	~298?
Avg	9	23	6,323	1,468	76%		

[1] *Approximated using average deliveries per fishing period.*

[2] *Includes adults and jacks.*

[3] *Very preliminary rough estimate*

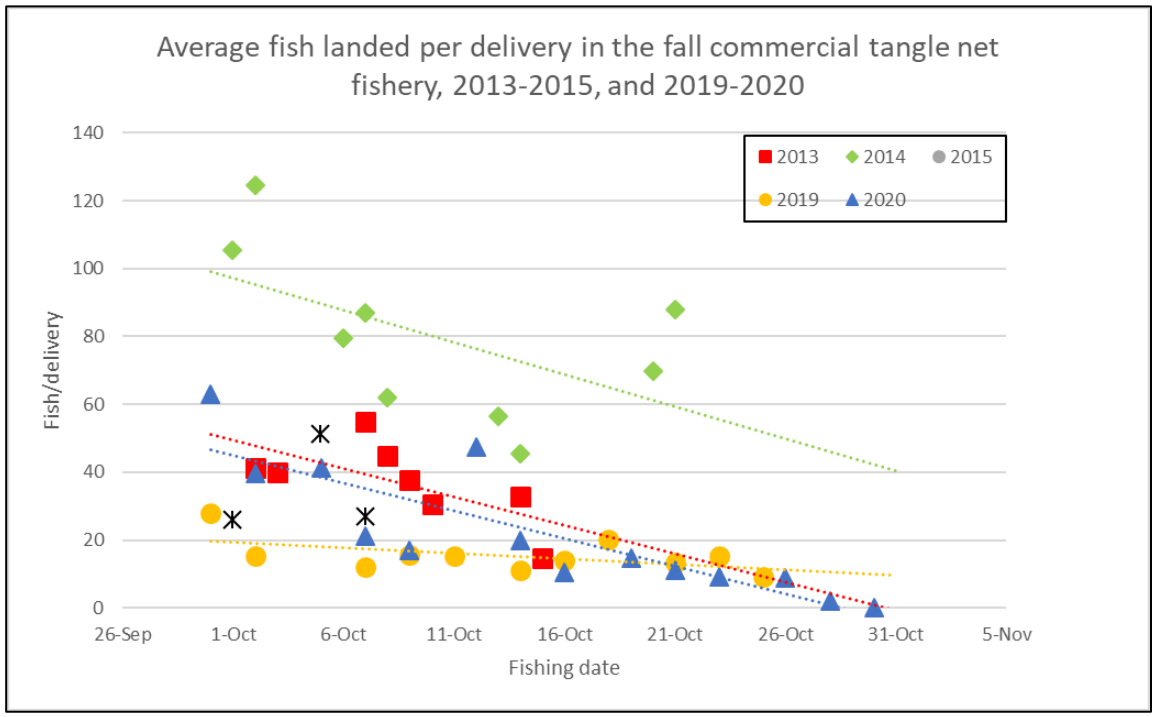
Potential Fishery Improvements

<u>Additional dark/night hours</u>

- Compact discretion but definitely can be considered (5a-6p in 2020, 6a-6p previously).
- Does not affect mortality rate.
- Complicates agency monitoring.

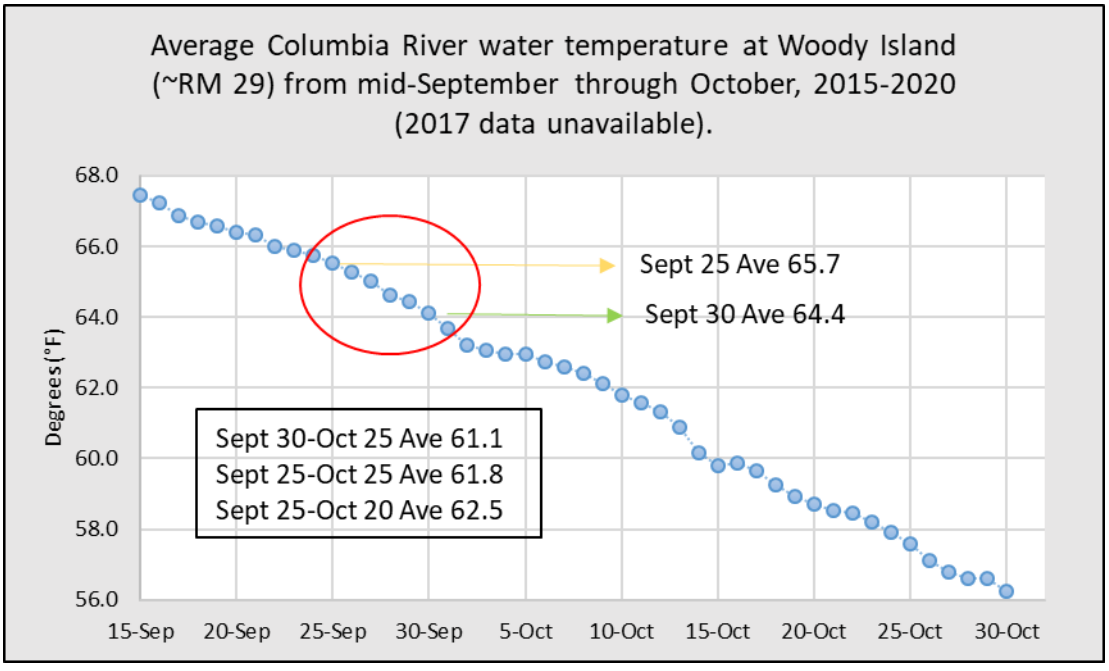
Earlier start date

- Catch rates generally best at start of season and then decline with daily fluctuations.



Includes coho and Chinook (adults and jacks)

- Earlier start = warmer water but is it significant? Difference between last week of September and first week of October varies annually but on average, about 2°F higher (Sep 23-30=65.3°F; Oct 1-7=63.2°F).
- An earlier start (or an earlier fishery) results in small increase in average temperature for the fishery.
- Last week of September 2021 starts Monday Sept 27.



Allow monofilament

- Average observed immediate mortality rate for mono was about 20% higher than multi.
- Only conducted long-term mortality rate on 3.75-inch multi.
- May require additional long-term study for fishery management.

Allow stringers

- Would likely increase catch (coho and Chinook) but harder to remove fish, thereby affecting release mortality.
- Harder to meet drift time limit?

Summer – Mark Selective (WA)

- Upper Columbia River Summer Chinook stock spawn in five tributaries (i.e., Wenatchee, Entiat, Chelan, Methow, and Okanogan) and there is empirical data that spawning also occurs within the mainstem.
    - Variety of hatchery production including Wells, Chief Joseph, Chelan and Entiat hatcheries.
    - Not ESA-listed.
- US vs OR Management Agreement (2018-27) objective to Priest Rapids Dam is 20,000 fish (hatchery and wild combined).
    - Goal has been met annually.
- A combination of mitigation efforts and additional hatchery production have occurred in recent years (i.e., Chief Joseph hatchery production) to rebuild the run and provide harvest opportunities. A combination of integrated (incorporates wild broodstock) and segregated stocks are used at hatcheries.
    - Weirs are used to remove hatchery fish but allow wild fish to pass to the spawning grounds.
    - Segregated hatchery stocks are the target component of the run for harvest.
    - Mark-selective fishing regulations, in addition to other removal efforts such as weirs, continues to be a viable approach to remove surplus hatchery fish while reducing impacts to wild fish.
        - Fisheries were largely non-mark selective but have transitioned to mark-selective throughout the basin recently.
        - Adipose-clip mark rates are in the 50-60% range in the lower Columbia River and much higher around the terminal fisheries above Priest Rapids Dam.
- WDFW and Colville Tribe have an agreement to minimize harvest on wild fish so they reach the spawning grounds while removing/harvesting hatchery fish to provide the highest fitness of the wild fish possible. See the agreed-to targets in the table below.
    - pHOS (proportion of hatchery-origin spawners) target per tributary.
    - Natural spawning target per tributary.
    - Targets are met in some tributaries some years, but not in all.
        - Current actions (i.e., weirs and mark-selective fisheries) help remove hatchery fish from the spawning grounds.

Table 1. Wild summer/fall Chinook spawning escapements in the Upper Columbia River tributaries for the 2002-2018 return years with escapement goals. Red indicates problem years (escapement target not acheived).												5-year		10-year	
	Wild Escapement Target	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	Average	Geomean	Average	Geomean
Wenatchee		5,879	8,155	7,327	7,449	9,607	4,070	5,321	6,534	2,744	1,312	3,996	3,479	5,840	5,137
Entiat	13,500 [1]	319	570	1,063	843	594	269	613	349	161	60	290	223	484	374
Chelan		481	563	262	606	583	719	396	378	454	236	437	410	468	443
Subtotal	13,500	6,679	9,288	8,651	8,898	10,784	5,058	6,330	7,261	3,359	1,608	4,723	4,166	6,792	6,040
Methow	1,500	1,271	1,459	1,680	1,720	1,463	3,162	1,457	1,028	684	479	1,362	1,092	1,440	1,284
Okanogan	5,250	3,178	4,618	4,521	5,627	10,407	10,439	8,700	5,429	3,266	2,604	6,088	5,303	5,879	5,263
Total	17,000	11,128	15,365	14,852	16,245	22,654	18,658	16,486	13,718	7,309	4,691	12,173	10,561	14,111	12,587

1 Goal is an aggregate allocation to include the Wenatchee and Entiat basins, with lower Chelan River

Table 2. Total Summer Chinook spawning escapement (wild and hatchery) in Upper Columbia tributaries for the 2002-2018 run years. Proportion of hatchery fish on spawning grounds is expressed as pHOS. Red indicates problem years (pHOS ≥ 0.33).												5-year		10-year	
	Wild Escapement Target	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	Average	Geomean	Average	Geomean
Wenatchee		7,468	9,850	8,539	10,209	10,443	4,330	5,902	7,425	3,473	1,828	4,592	4,132	6,947	6,175
pHOS		0.21	0.17	0.14	0.27	0.08	0.06	0.10	0.12	0.21	0.28	0.15	0.13	0.16	0.15
Entiat	13,500	415	627	1,275	995	701	363	766	591	486	145	470	410	636	553
pHOS		0.23	0.09	0.17	0.15	0.15	0.26	0.20	0.41	0.67	0.59	0.43	0.38	0.29	0.24
Chelan		1,118	1,280	1,308	1,684	1,100	1,438	900	859	966	1,181	1,069	1,049	1,183	1,160
pHOS		0.57	0.56	0.80	0.64	0.47	0.50	0.56	0.56	0.53	0.80	0.59	0.58	0.60	0.59
Methow	1,500	2,492	2,917	2,947	3,583	1,625	3,952	2,241	1,408	1,367	1,638	2,121	1,946	2,417	2,260
pHOS		0.49	0.50	0.43	0.52	0.10	0.20	0.35	0.27	0.50	0.71	0.41	0.37	0.41	0.36
Okanogan	5,250	5,952	9,681	8,225	8,194	12,164	13,726	10,605	6,568	4,860	5,453	8,242	7,599	8,543	8,087
pHOS		0.47	0.52	0.45	0.31	0.14	0.24	0.18	0.17	0.33	0.52	0.29	0.26	0.33	0.30
Total		17,445	24,355	22,294	24,665	26,033	23,809	20,414	16,851	11,152	10,245	16,494	15,136	19,726	18,236

1 Goal is an aggregate allocation to include the Wenatchee and Entiat basins, with lower Chelan River

Electronic Monitoring (WA)

See staff presentation (separate document).

Commercial License Reduction Workgroup (WA)

https://wdfw.medium.com/healthy-fisheries-healthy-economies-f94995c0df87

- WDFW is requesting ~$1 million in the 2021–23 Biennium to fund the first phase of a license reduction program for the Columbia River commercial fishery.
    - Would allow the agency to purchase back up to 100 licenses from willing sellers in Phase 1 of the program at $10,000 per license.
    - License reduction programs have been used in various fisheries around the U.S. to "right size" the number of licenses to the available harvest. Similar to other programs, the intent in the Columbia River fishery is to rebalance licenses in order to improve the operational efficiency and economic viability of the Columbia River commercial salmon fishery and implement a key deliverable of Fish & Wildlife Commission Policy 3620.
    - Because Columbia River, Willapa Bay and Grays Harbor licenses are linked fisheries participants in all three fisheries will be able to participate in this program.
- Salmon fisheries play an integral part of the state's marine conservation and salmon recovery strategies.
    - Balancing the production of hatchery fish with conservation goals.
    - Through a data-driven approach, license reduction will ultimately create a more streamlined fleet, providing remaining fishers with more consistent opportunity, and support the goal of Commission Policy C-3620 of increasing economic viability and stability in the fishery.
    - License reduction will provide managers with increased certainty about expected effort levels.
- Phase 1
    - Initiating Phase 1 in 2021 will allow interested fishers to exit the fishery while the agency on future phases of the program.
    - The program would be voluntary, and all Columbia River, Willapa Bay, and Grays Harbor license holders would be eligible to participate.
    - The goal is to purchase about 40 percent of existing licenses (up to 100).
- Future Phases include a joint-state program with Oregon.
    - WDFW's goal is to partner with Oregon Department of Fish & Wildlife and the commercial fishers in developing future phases in order to remove both Washington and Oregon licenses and optimize the number of fishers on the Columbia River.
    - WDFW is exploring federal disaster funds, private financing, grant funding, and industry funding for future phases of the program.
- Long-term vision for a modernized Columbia River Commercial fishery.
    - Recognizing the value and importance of this fishery, WDFW is working with industry to modernize the commercial fishery through three complementary efforts: license reduction, alternative gear development, and strengthening of local markets.
    - Creating a healthy, modern and viable fishery on the lower Columbia River will ensure the fishery's social, economic and ecological contributions to the local economies of southwest Washington endure into the future.

Coho Forecast (Ocean Abundance)

2020 abundance and 2021 forecast of ocean coho run components prior to harvest (thousands of fish)				
	2020			2021
	Pre	Post	Pre/Post	Forecast
Columbia River Early	130.7	240.7	54%	1,014.0
Columbia River Late	50.3	122.9	41%	576.0
Columbia River Subtotal	**181.0**	**363.6**	**50%**	**1,590.0**
Coast Subtotal	4.70	6.0	78%	17.9
Total (OPI-H)	**185.7**	**369.6**	**50%**	**1,607.9**
OCN Rivers	77.1	99.5	77%	116.3
OCN Lakes	5.9	10.5	56%	8.7
OCN Total	**83.0**	**110.0**	**75%**	**125.0**
Grand Total	**268.7**	**479.6**	**56%**	**1,732.9**

Alternative Gear Advisory Board update (WA)

https://wdfw.wa.gov/about/advisory/cragab