

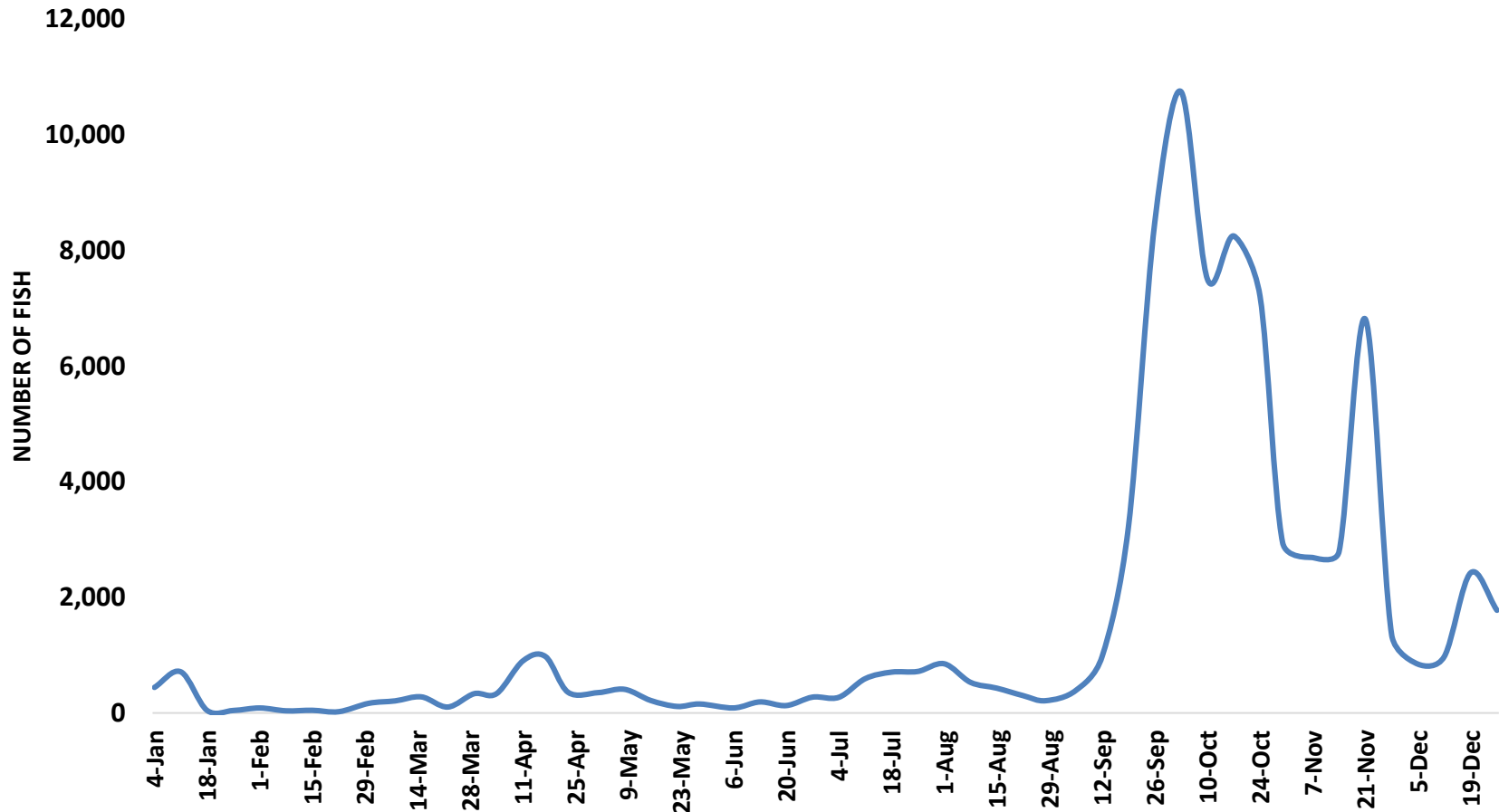
Cowlitz River Upstream Collection and Disposition

Cowlitz River Annual Program Review and Science Conference

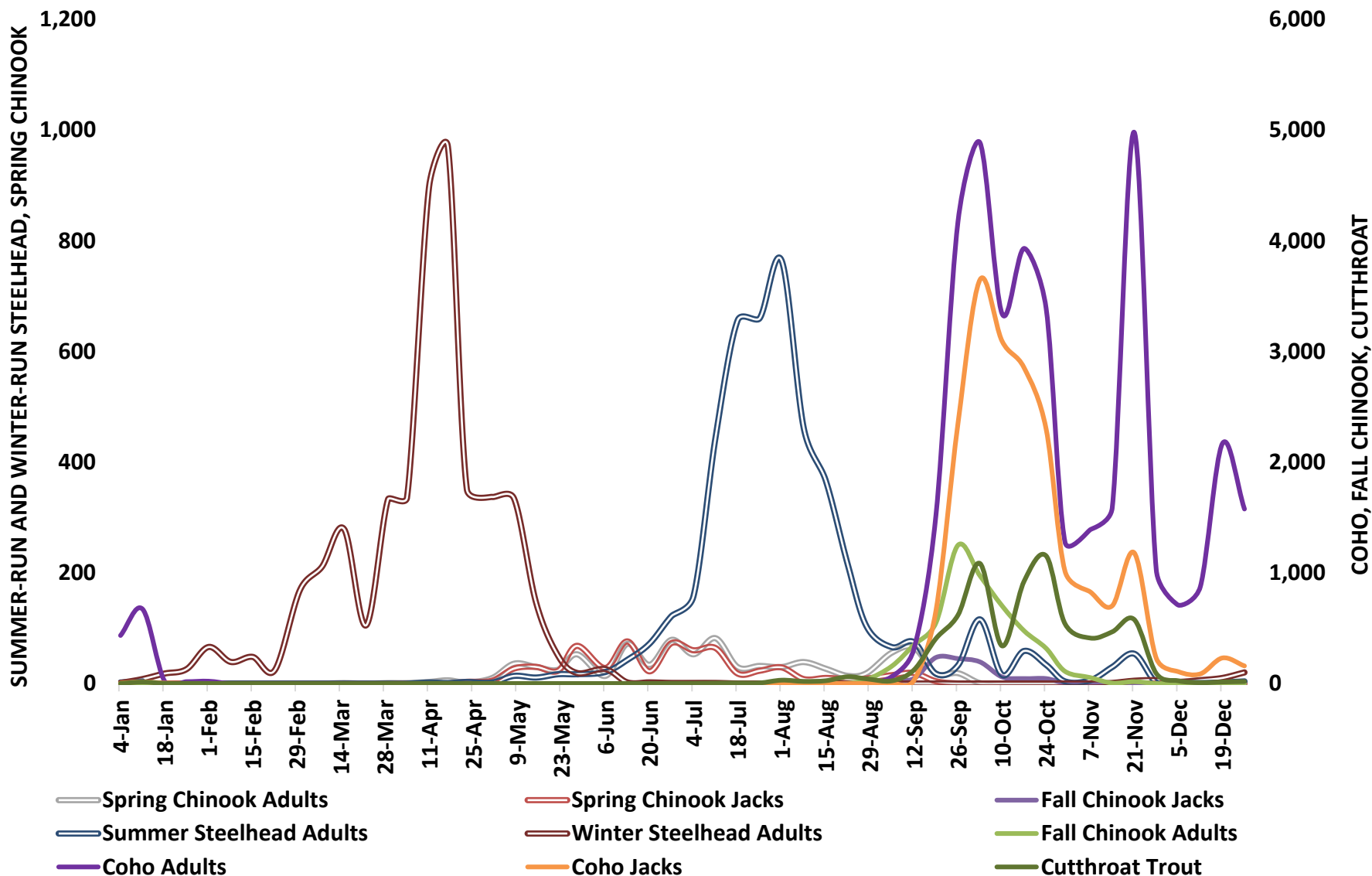
5/19/2021

Jamie Murphy, Tacoma Power Natural Resources Specialist

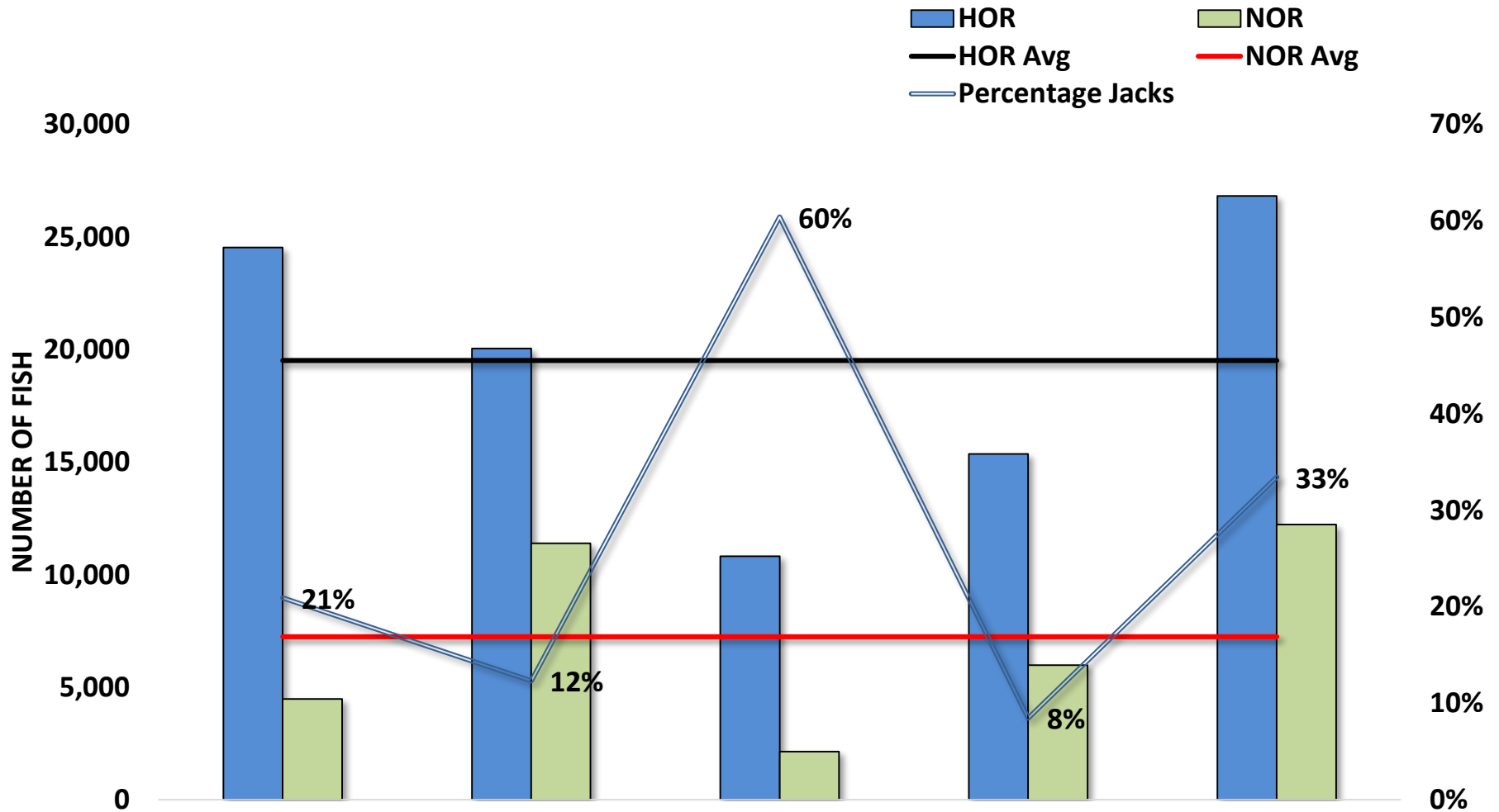
2020 WEEKLY RETURNS TO THE COWLITZ SALMON HATCHERY (CSH) SEPARATOR



THE CSH SEPARATOR



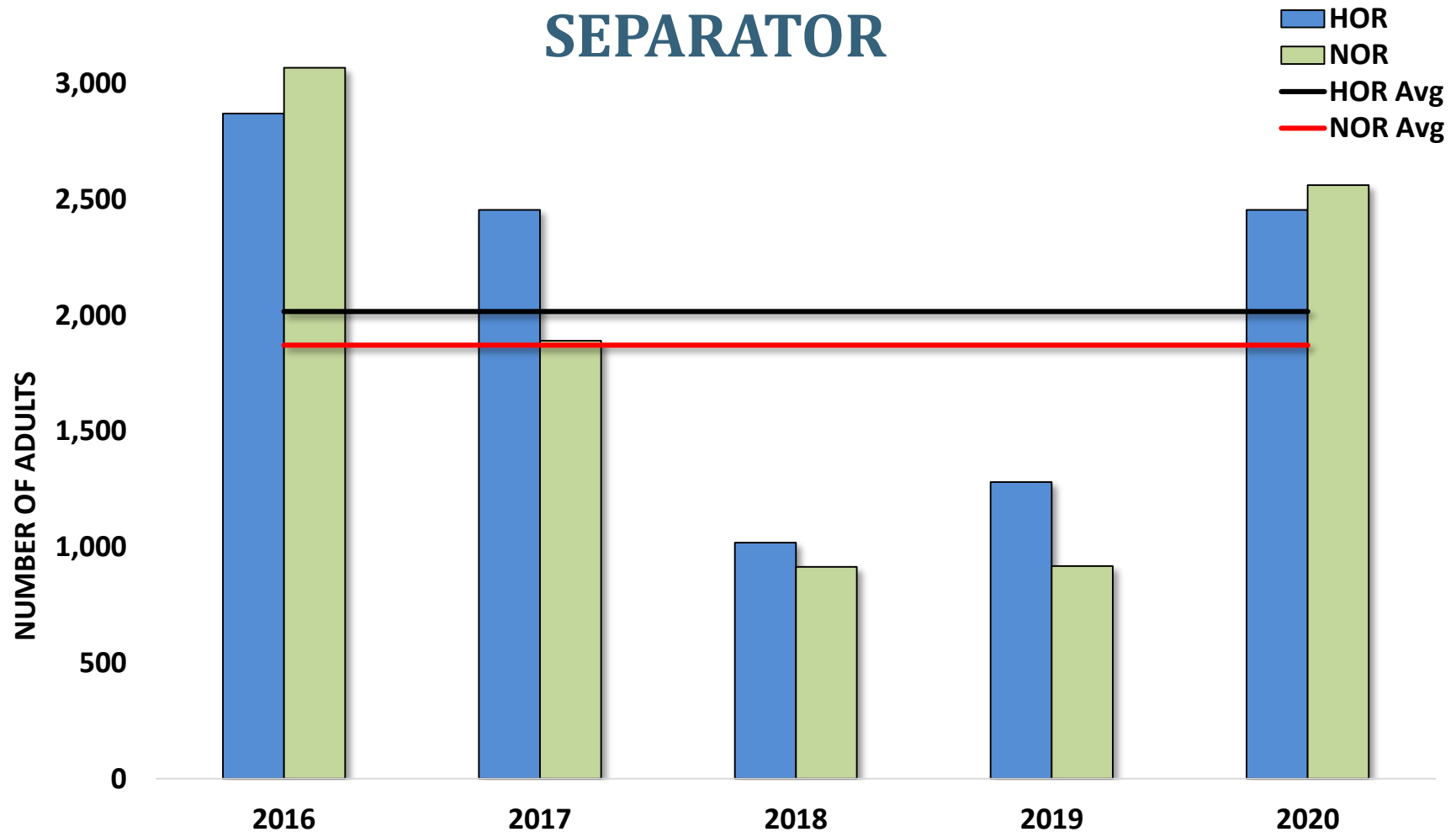
COHO ADULT RETURNS TO THE CSH SEPARATOR



	2016	2017	2018	2019	2020
HOR	24,536	20,044	10,815	15,359	26,825
NOR	4,481	11,388	2,144	5,978	12,222

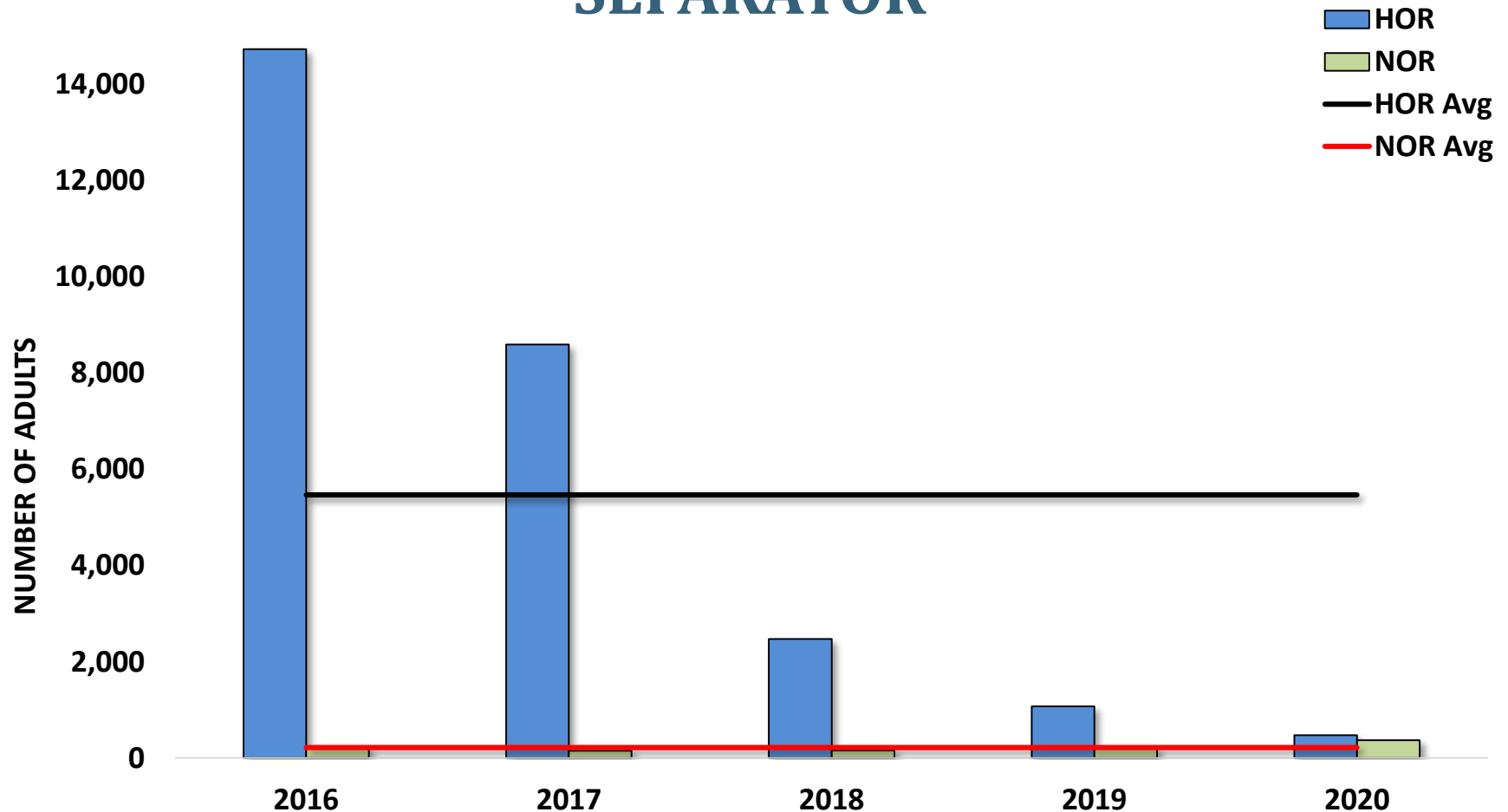
FALL CHINOOK ADULT RETURNS TO THE CSH

SEPARATOR



	2016	2017	2018	2019	2020
HOR	2,870	2,455	1,019	1,280	2,455
NOR	3,068	1,890	914	918	2,562

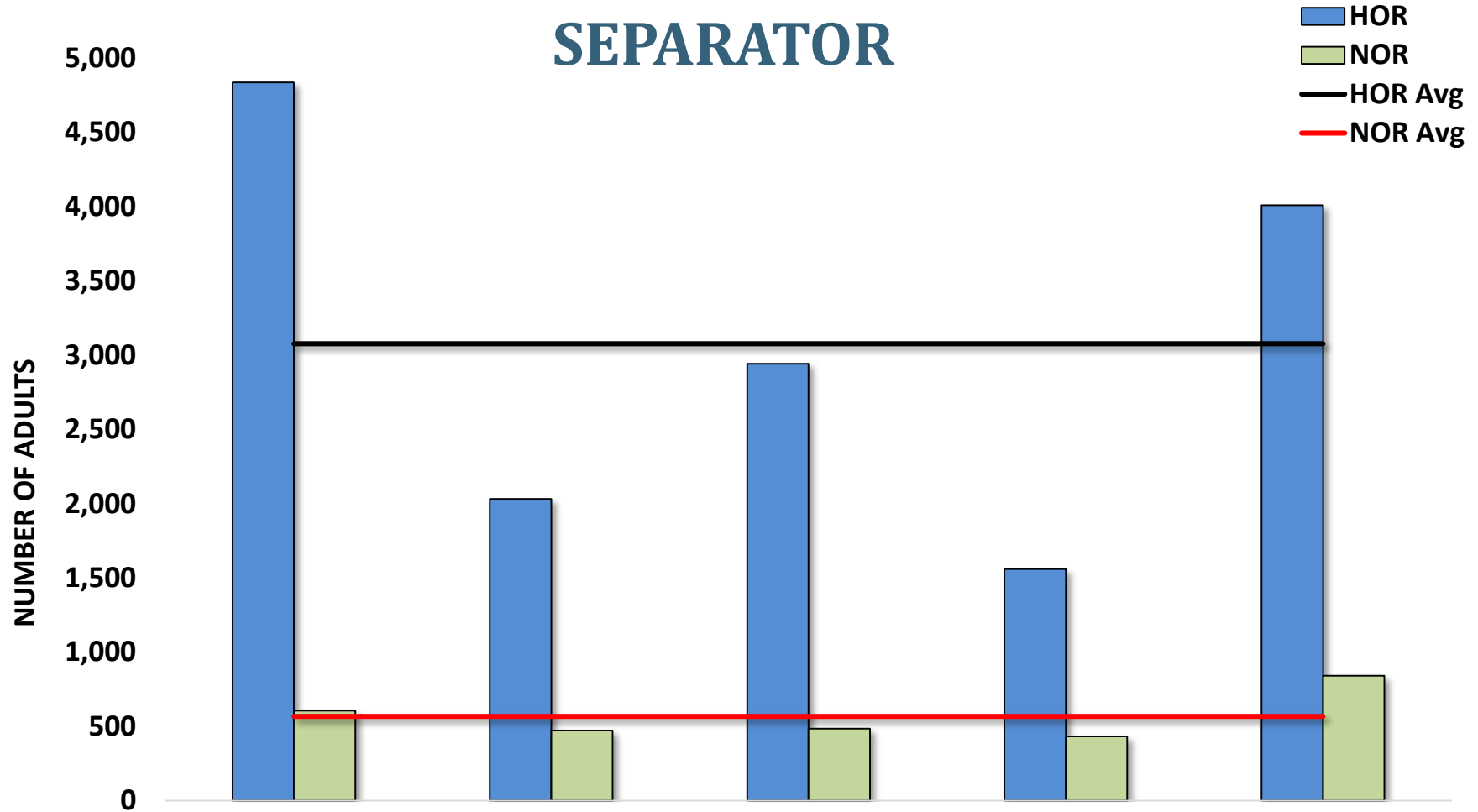
SPRING CHINOOK ADULT RETURNS TO THE CSH SEPARATOR



	2016	2017	2018	2019	2020
HOR	14,730	8,595	2,473	1,073	473
NOR	206	150	157	196	370

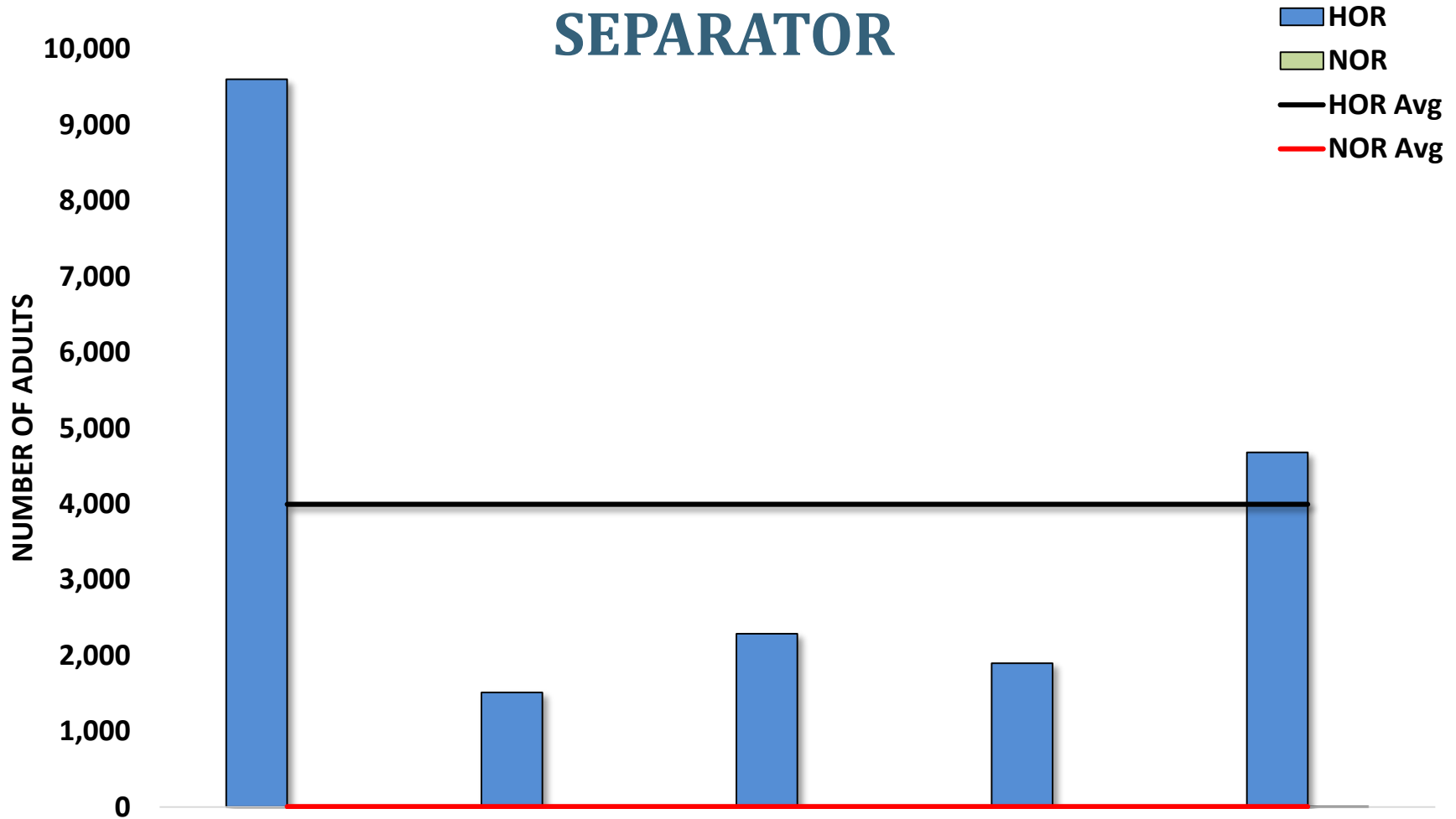
WINTER-RUN STEELHEAD RETURNS TO THE CSH

SEPARATOR



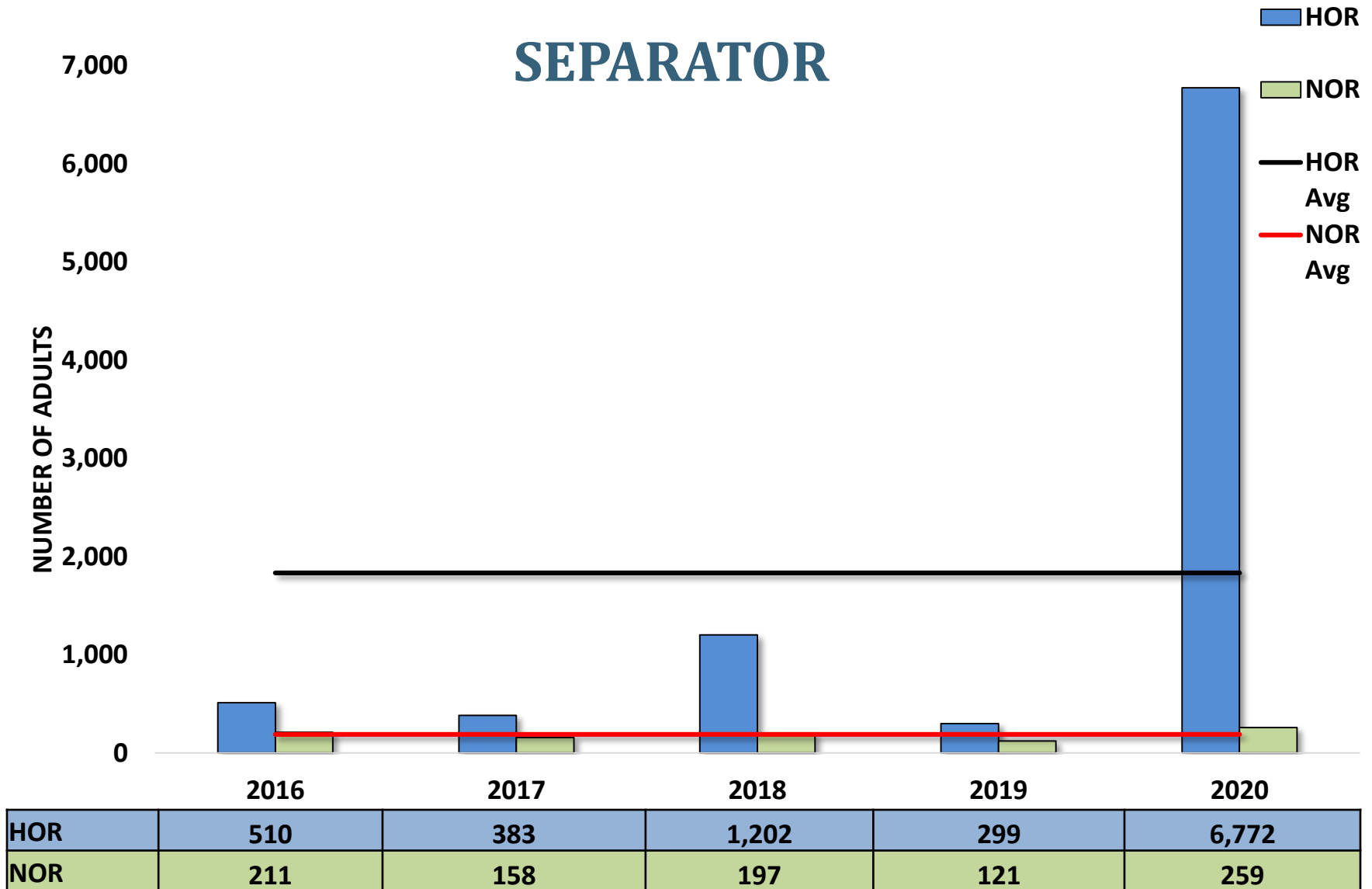
	2016	2017	2018	2019	2020
HOR	4,836	2,031	2,942	1,559	4,010
NOR	605	472	484	432	840

SUMMER-RUN STEELHEAD RETURNS TO THE CSH SEPARATOR



	2016	2017	2018	2019	2020
HOR	9,603	1,513	2,287	1,896	4,680
NOR	4	2	8	6	3

SEA-RUN CUTTHROAT RETURNS TO THE CSH SEPARATOR



TILTON AND UPPER COWLITZ RELEASE SITES



ADULT HANDLING PROTOCOL (AHP)

9/3/2020 Update
COWLITZ COMPLEX ADULT HANDLING –
COWLITZ SALMON HATCHERY

DISPOSITION OF ADULTS THAT ARRIVE AT THE
COWLITZ SALMON HATCHERY

BY 2020	ORIGIN	MARKS IN FISH	GUST BACK	BREMER BR.	PACKWOOD	CISPUS R.	SCANEWA	RETAIN AT HATCHERY	LOWER RIVER
SPRING CHINOOK	Hatchery	Ad Clip Only			25% AHN	25% AHN	50% AHN		
	Hatchery	Ad Clip+CWT						All	
	Wild - NOR	Unmarked					All ¹		
	SCANEWA NOT AVAILABLE or AFTER JUNE 16TH TO THE END OF SUMMER WHEN LAKE TEMPS DROP BELOW 18 DEGREES								
	Hatchery	Ad Clip Only			50% AHN	50% AHN			
	Hatchery	Ad Clip+CWT						All	
	Wild - NOR	Unmarked			50%	50%			
BY 2020	ORIGIN	MARKS IN FISH	GUST BACK	BREMER BR.	PACKWOOD	CISPUS R.	SCANEWA	RETAIN AT HATCHERY	LOWER RIVER
FALL CHINOOK	Hatchery	Ad Clip Only	1,600/ AHN					Broodstock	
	Integrated H/W	Ad Clip+CWT						All	
	Wild - NOR	Unmarked		AHN				Collect at 1:2	
* Per NOAA approval collect UM fish at a 1 fish to broodstock, 2 fish to the Tilton River, not to exceed 30% retention to hatchery									
BY 2020	ORIGIN	MARKS IN FISH	GUST BACK	BREMER BR.	PACKWOOD	CISPUS R.	SCANEWA	RETAIN AT HATCHERY	LOWER RIVER
LATE COHO	Hatchery	Ad Clip Only	6,000*					Broodstock	
	Integrated H/W	Ad Clip+CWT			25%	25%	50% [†]		
	Integrated H/W (Flow/Spill)	Ad Clip+CWT			50%	50%			
	Wild - NOR	Unmarked+CWT					All/AHN	Broodstock	
	Wild - NOR	Unmarked		All					
* Approval for increase to 12k pending FTC approval									
[†] If conditions do not permit planting adults at Scanewa then plant approximately 50% to Cispus & 50% to Packwood.									
BY 2020	ORIGIN	MARKS IN FISH	GUST BACK	BREMER BR.	PACKWOOD	CISPUS R.	SCANEWA	RETAIN AT HATCHERY	LOWER RIVER
ANADROMOUS COASTAL CUTTHROAT	Hatchery	Ad Clip Only						Broodstock	All AHN*
	Wild - NOR	Unmarked		All					
	Wild - NOR	Unmarked+Dorsal+ BWT		All					
	Wild - NOR	UM+ CWT					All*		
All hatchery fish mass marked.									
* Caudal clip recycled fish.									
^o See NOTES tab - Cispus preferred when Scanewa not available.									
BY 2021	ORIGIN	MARKS IN FISH	GUST BACK	BREMER BR.	PACKWOOD	CISPUS R.	SCANEWA	RETAIN AT HATCHERY	LOWER RIVER
WINTER STEELHEAD	Hatchery	Ad Clip Only						All	
	Integrated H/W	Ad Clip+CWT				AHN		Broodstock	
	Integrated H/W	Ad Clip+RV (UCR)				AHN		Broodstock	
	Integrated H/W	Ad Clip+LV (Tilton)	50% AHN	50% AHN				Broodstock	
	Wild - NOR	Dorsal Sinus CWT	50%	50%				Broodstock	
	Wild - NOR	Unmarked+BWT					All/AHN ^o	Broodstock	
	Wild - NOR	Unmarked	50%/AHN	50%/AHN				Broodstock	
^o See NOTES tab. - Caudal clipped fish re-returning after live spawning will be distributed to their respective origins.									
BY 2021	ORIGIN	MARKS IN FISH	TILTON	BREMER BR.	PACKWOOD	CISPUS R.	SCANEWA	RETAIN AT HATCHERY	LOWER RIVER
SUMMER STEELHEAD	Hatchery	Ad Clip Only						AHN / C.	3,300 [†]
	Wild - NOR	Unmarked							All
All hatchery fish mass marked.									
* Final disposition to be determined by Fish Management annually. Fish may be donated to food banks, planted in other lakes etc....									
† Fish will be OP punched and recycled downstream from June 1st-Aug 15th. Approx. 200 fish /week to I-5 boat launch pending fish management /FTC review/ modification.									

ADULT HANDLING PROTOCOL (AHP)

BY 2021	ORIGIN	MARKS IN FISH	GUST BACK.	BREMER BR.	PACK-WOOD	CISPUS R.	SCANEWA	RETAIN AT HATCHERY	LOWER RIVER
LATE COHO	Hatchery (HOR)	Ad Clipped Only	6000 *					Broodstock	
	Integrated (H/W) ¹	Ad Clipped+CWT			25%	25%	50% ¹		
	Integrated (H/W) (flow/spill)	Ad Clipped+CWT			50%	50%			
	Wild (NOR)	Unmarked +CWT					All/AHN ¹	Broodstock	
	Wild (NOR)	Unmarked		ALL					

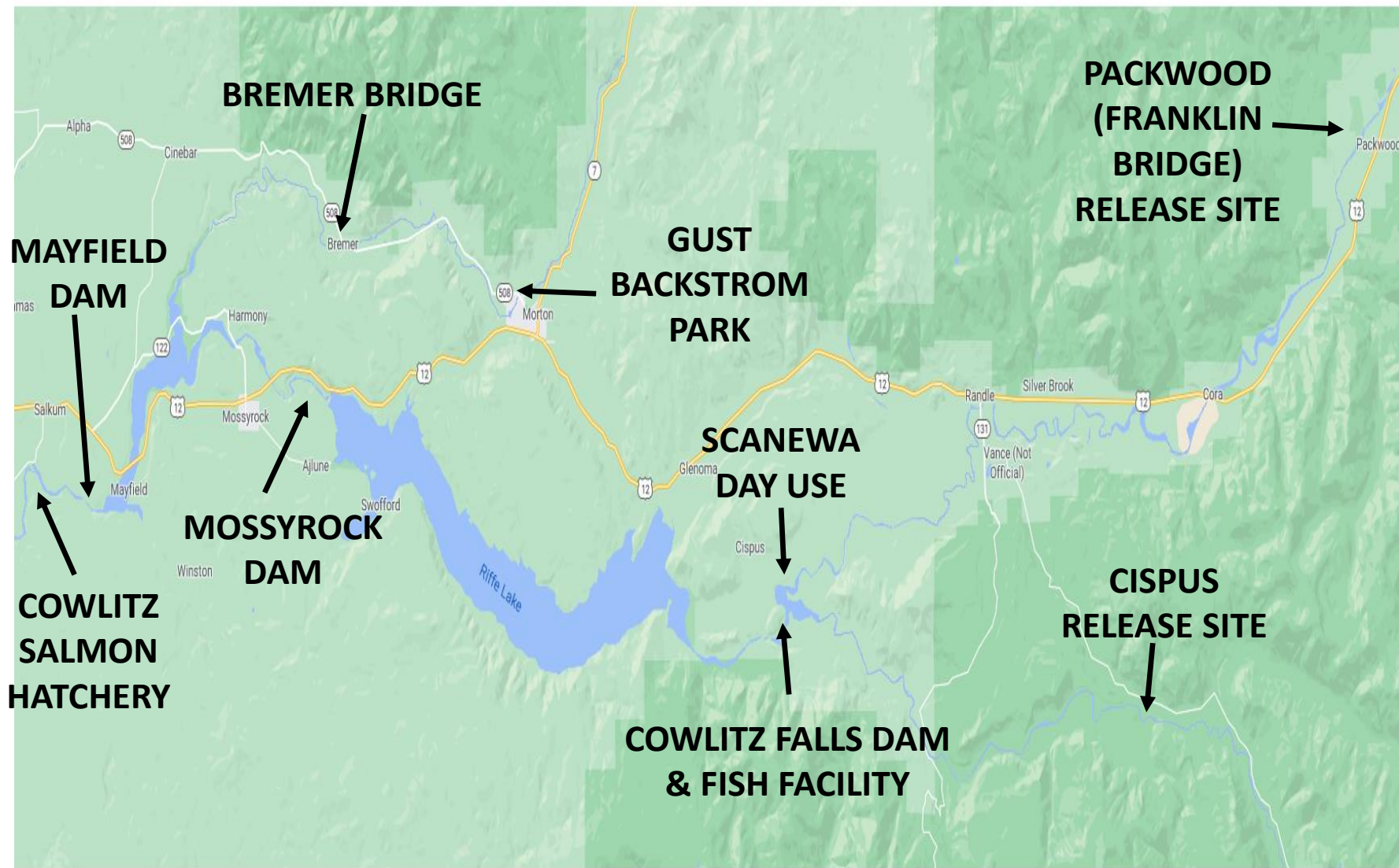
* Approval for increase to 12k pending FTC approval

¹ If conditions do not permit planting adults at Scanewa then plant approximately 50% to Cispus & 50% to Packwood.

BY 2022	ORIGIN	MARKS IN FISH	GUST BACK.	BREMER BR.	PACK-WOOD	CISPUS R.	SCANEWA	RETAIN AT HATCHERY	LOWER RIVER
WINTER STEEL-HEAD	Hatchery (HOR)	Ad Clipped Only						All	
	Integrated (H/W)	AD+CWT				AHN			
	Integrated (H/W)	AD+RV (UCR)				AHN			
	Integrated (H/W)	AD+LV (Tilton)	50% AHN	50%AHN					
	Wild (NOR)	UM+Dorsal CWT	50%	50%					
	Wild (NOR)	Unmarked +CWT					All/ AHN ^a	Integrated Broodstock	
	Wild (NOR)	Unmarked	50%/ AHN ^a	50%/ AHN ^a				Integrated Broodstock	

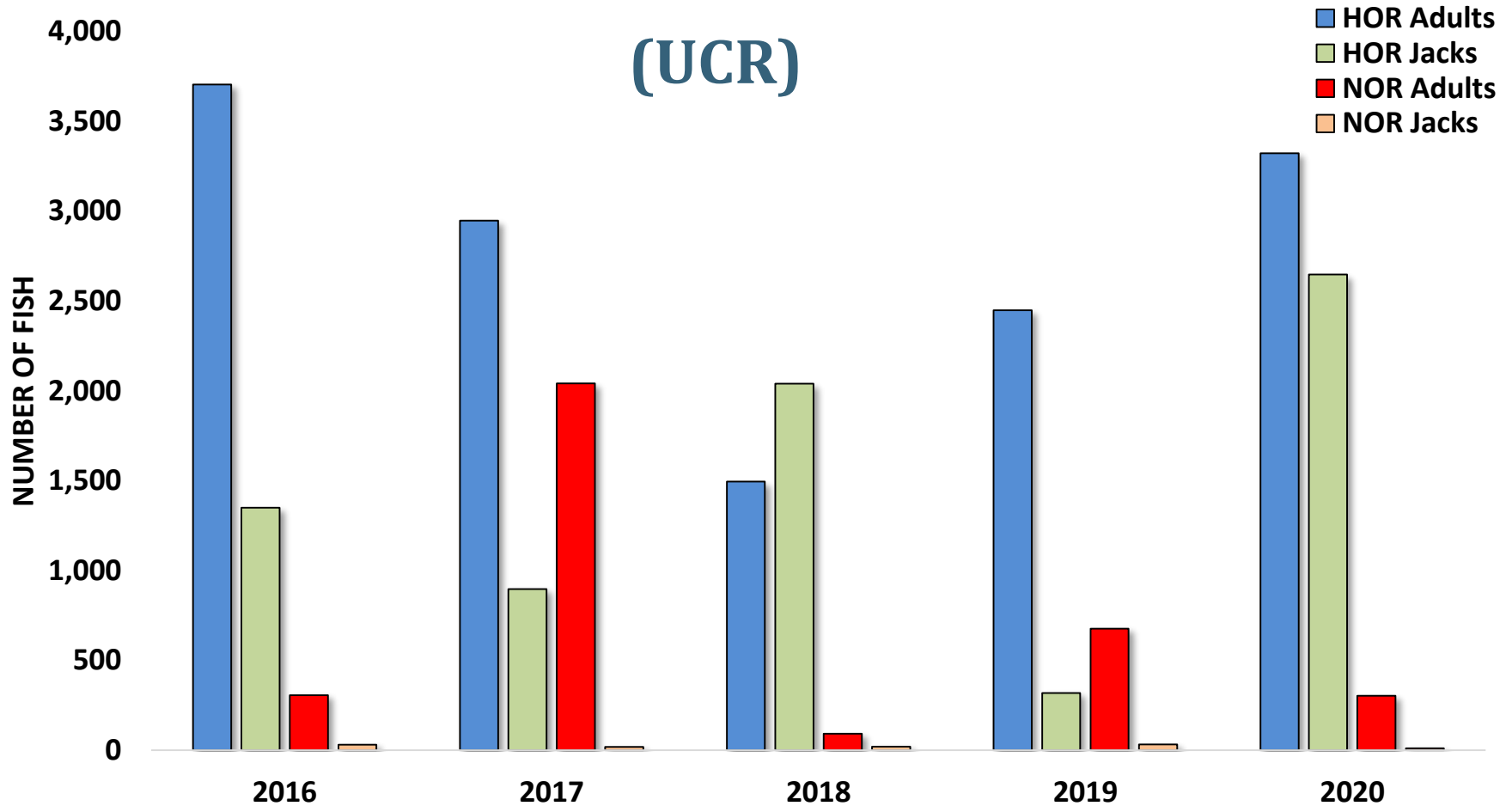
^a See NOTES tab. - Caudal clipped fish re-returning after live spawning will be distributed to their respective origins.

TILTON AND UPPER COWLITZ RELEASE SITES



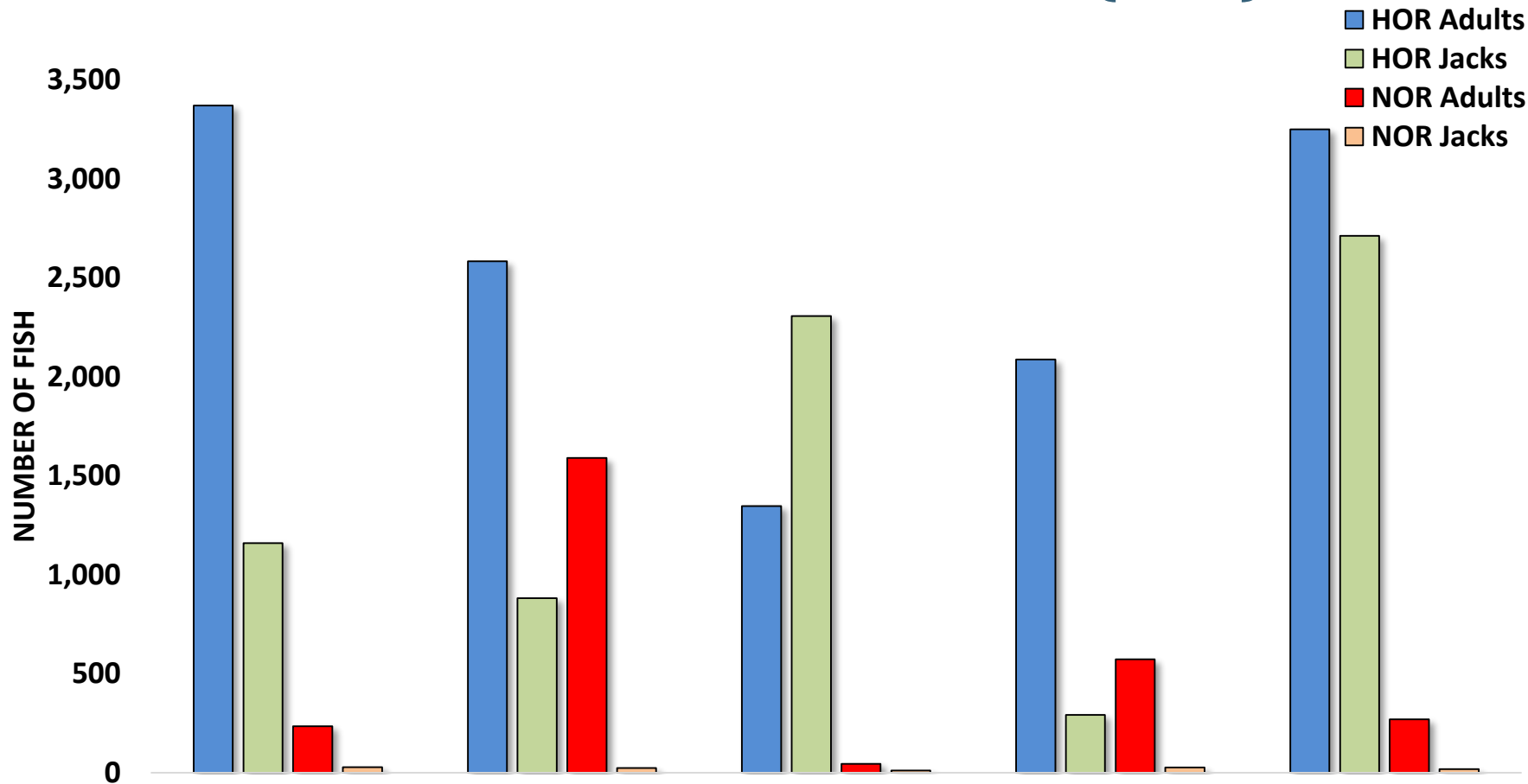
COHO CISPUS RELEASES – UPPER COWLITZ RIVER

(UCR)

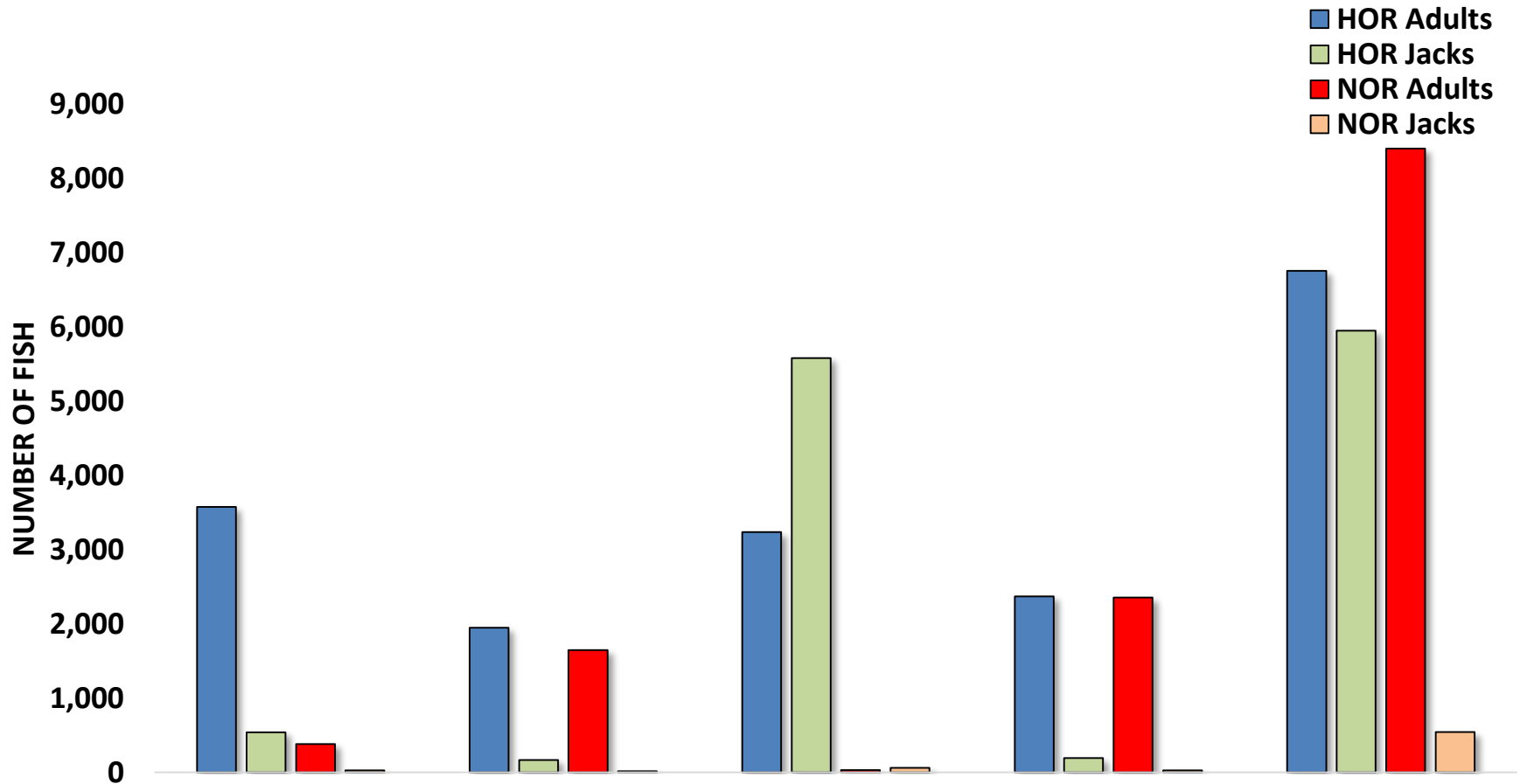


	2016	2017	2018	2019	2020
HOR Adults	3,704	2,946	1,495	2,447	3,321
HOR Jacks	1,349	896	2,039	319	2,647
NOR Adults	307	2,041	93	676	304
NOR Jacks	31	19	20	32	11

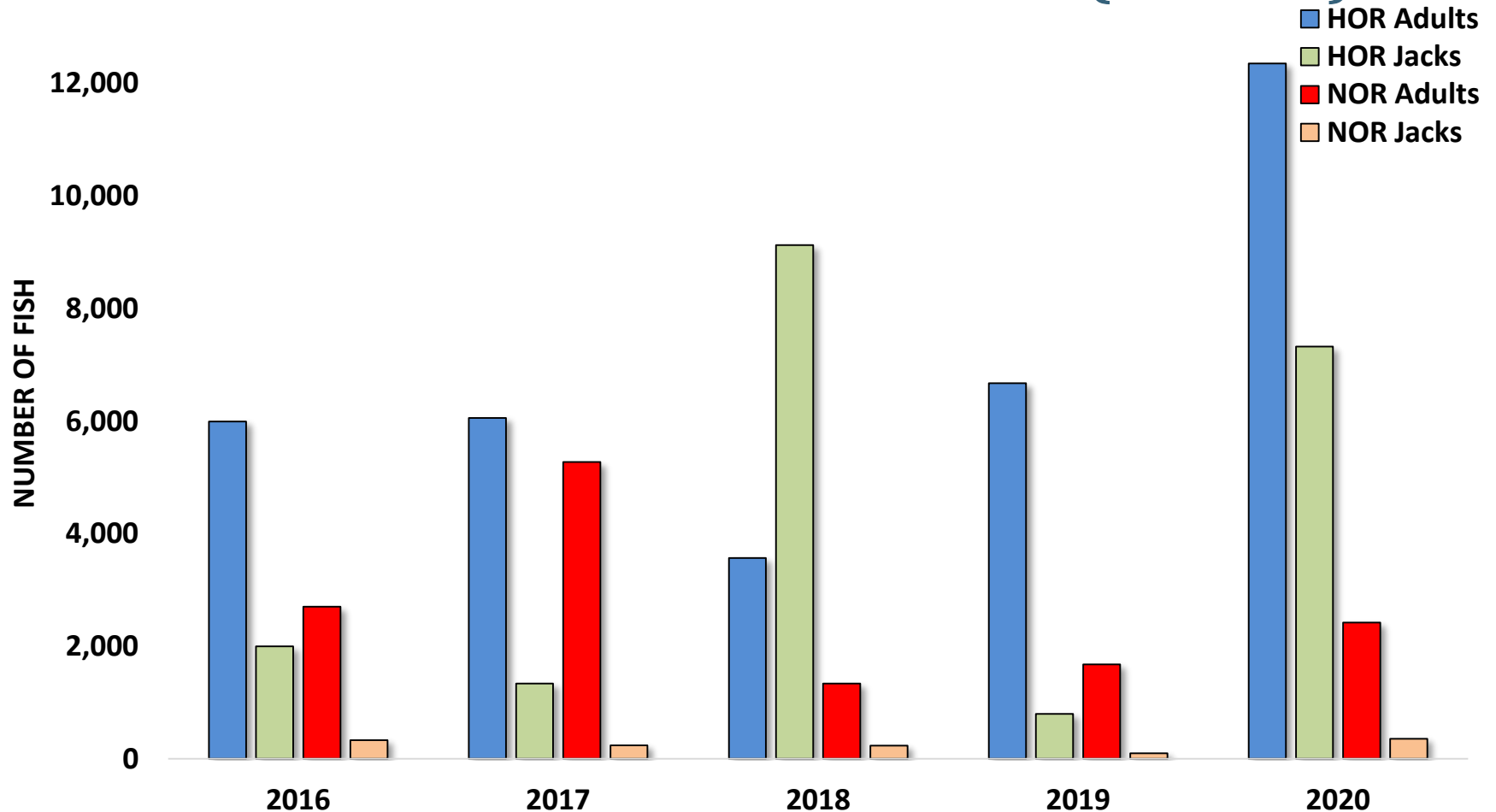
COHO PACKWOOD RELEASES (UCR)



COHO SCANEWA RELEASES (UCR)

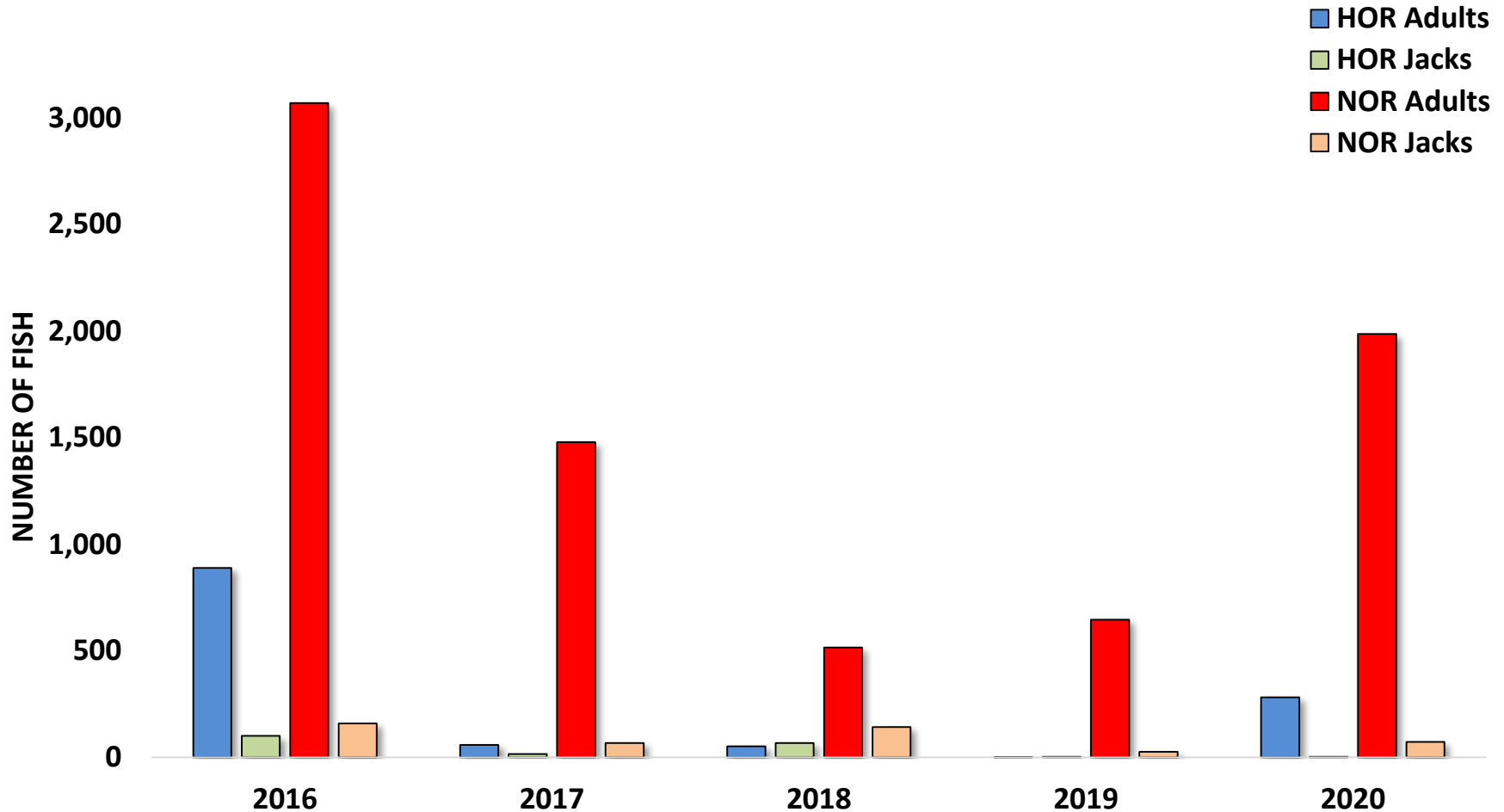


COHO GUST BACKSTROM RELEASES (TILTON)



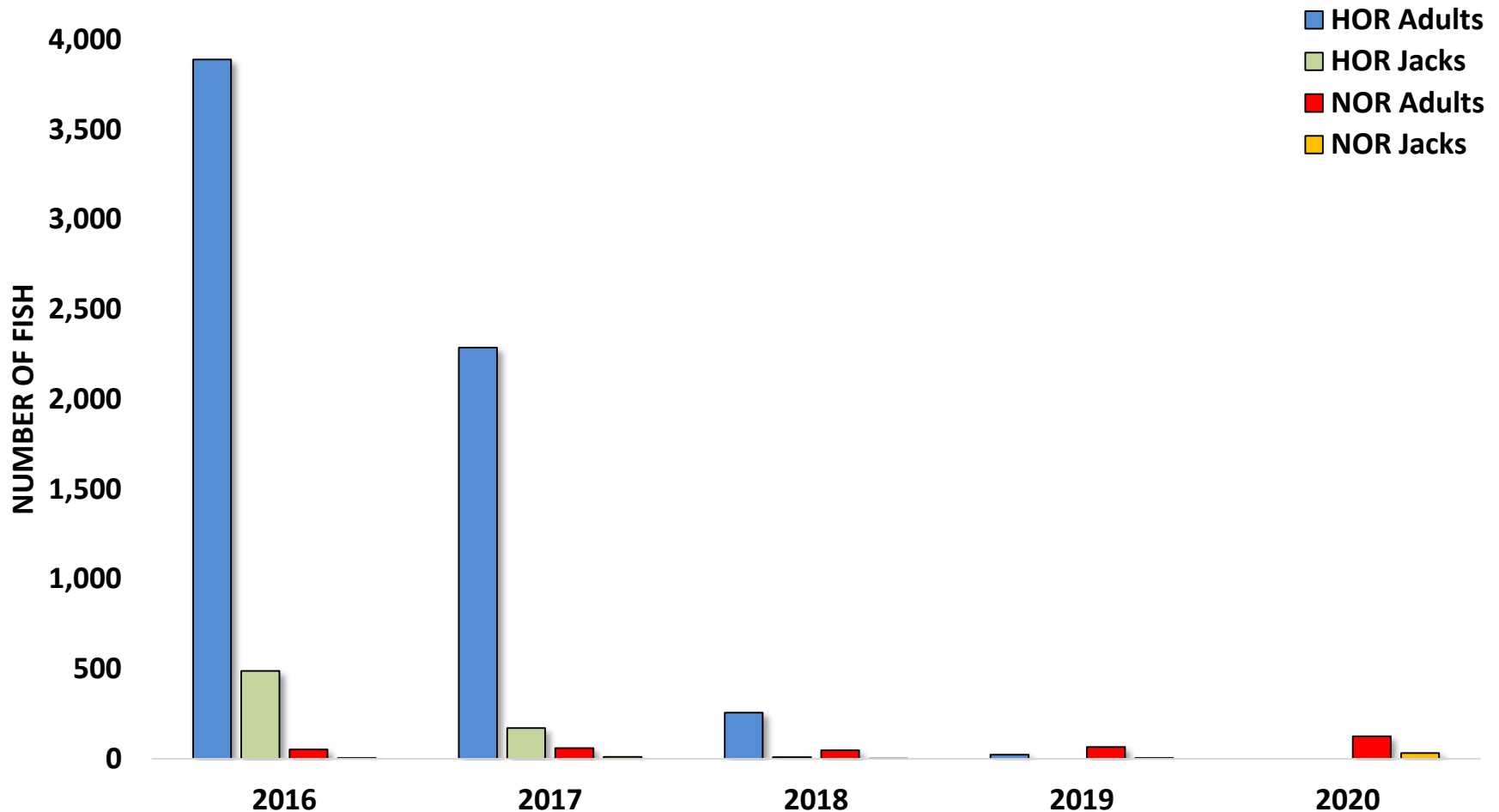
	2016	2017	2018	2019	2020
HOR Adults	5,995	5,961	3,570	6,676	12,358
HOR Jacks	1,996	1,335	9,128	798	7,324
NOR Adults	2,703	5,272	1,335	1,582	2,424
NOR Jacks	329	240	233	95	354

FALL CHINOOK TILTON RELEASES



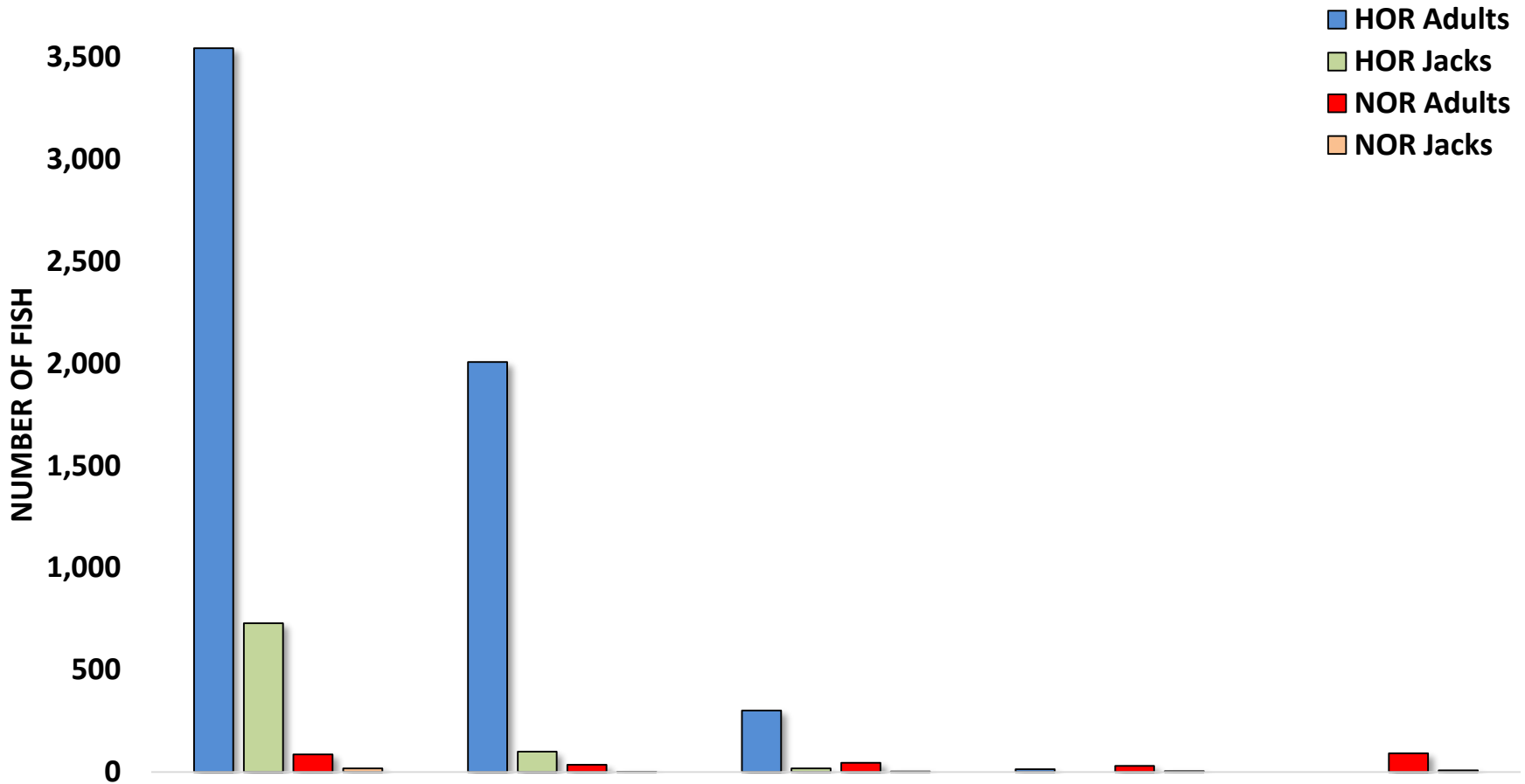
	2016	2017	2018	2019	2020
HOR Adults	889	59	52	1	282
HOR Jacks	101	16	68	3	3
NOR Adults	3,068	1,478	516	646	1,985
NOR Jacks	159	68	142	26	73

SPRING CHINOOK CISPUS RELEASES (UCR)



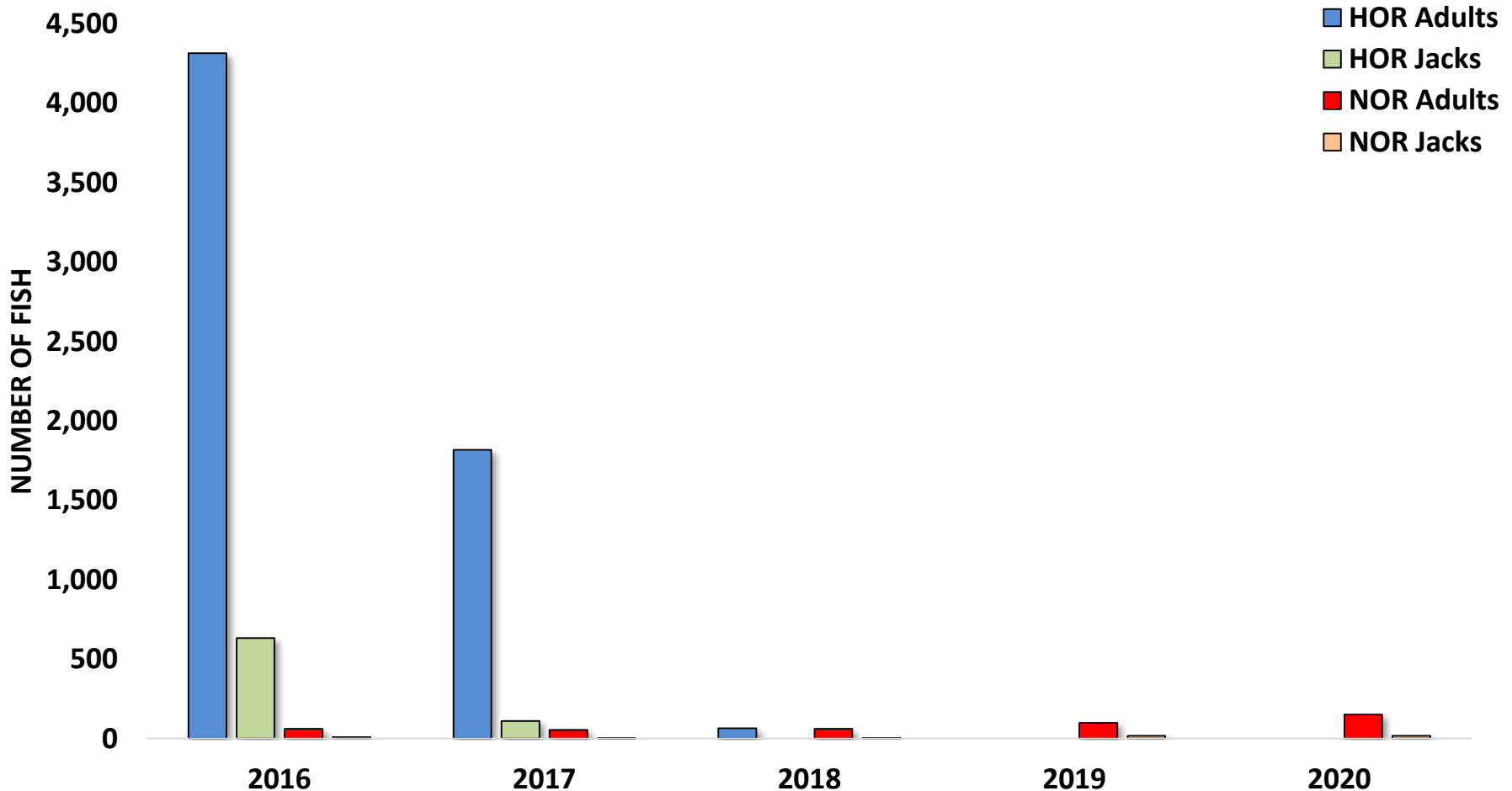
	2016	2017	2018	2019	2020
HOR Adults	3,889	2,286	256	23	0
HOR Jacks	488	170	8	0	0
NOR Adults	51	59	47	66	125
NOR Jacks	4	11	1	4	31

SPRING CHINOOK PACKWOOD RELEASES (UCR)



	2016	2017	2018	2019	2020
HOR Adults	3,542	2,007	301	14	0
HOR Jacks	729	101	18	0	0
NOR Adults	87	36	46	30	92
NOR Jacks	18	2	3	4	9

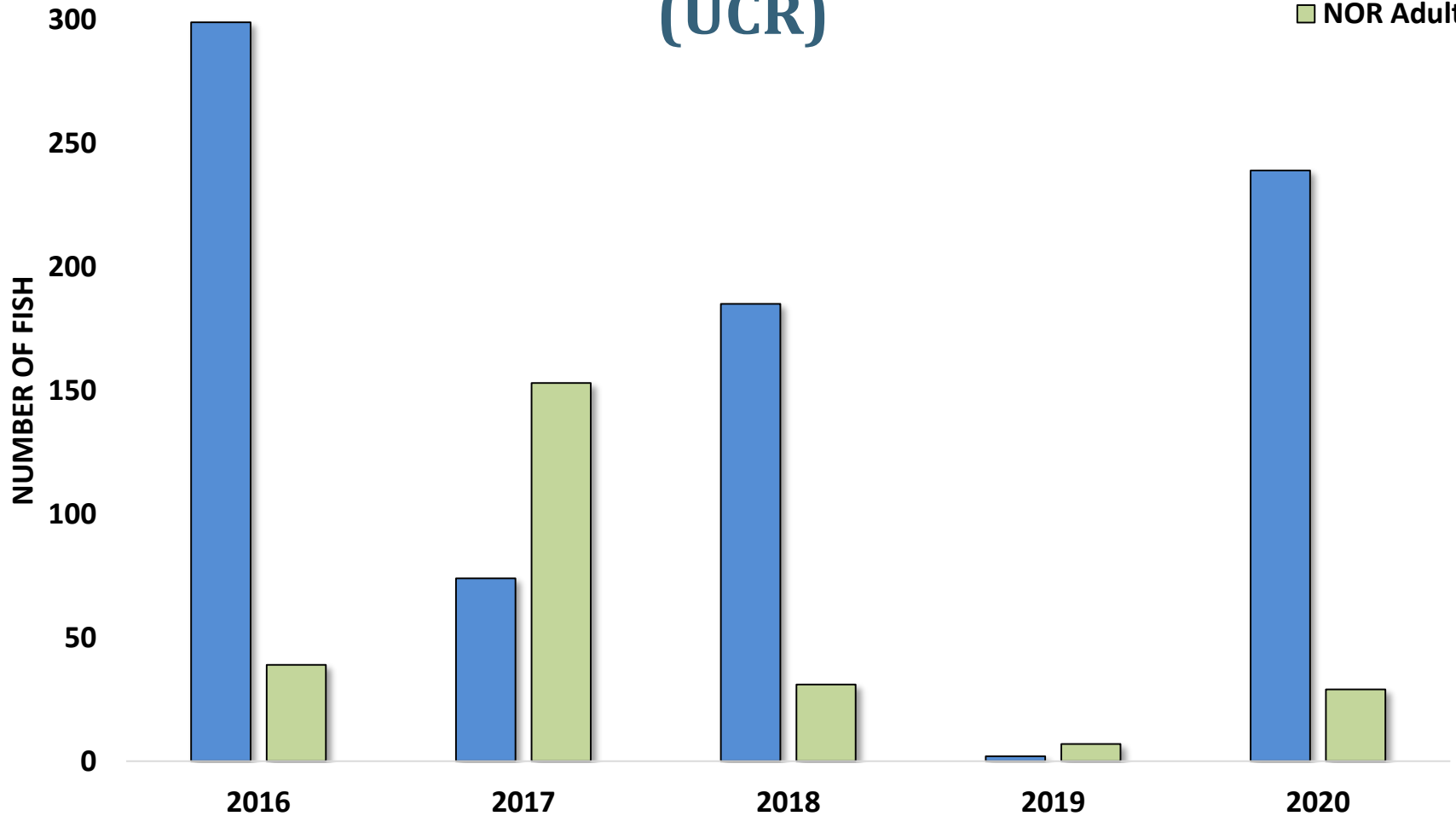
SPRING CHINOOK SCANEWA RELEASES (UCR)



WINTER-RUN STEELHEAD CISPUS RELEASES

(UCR)

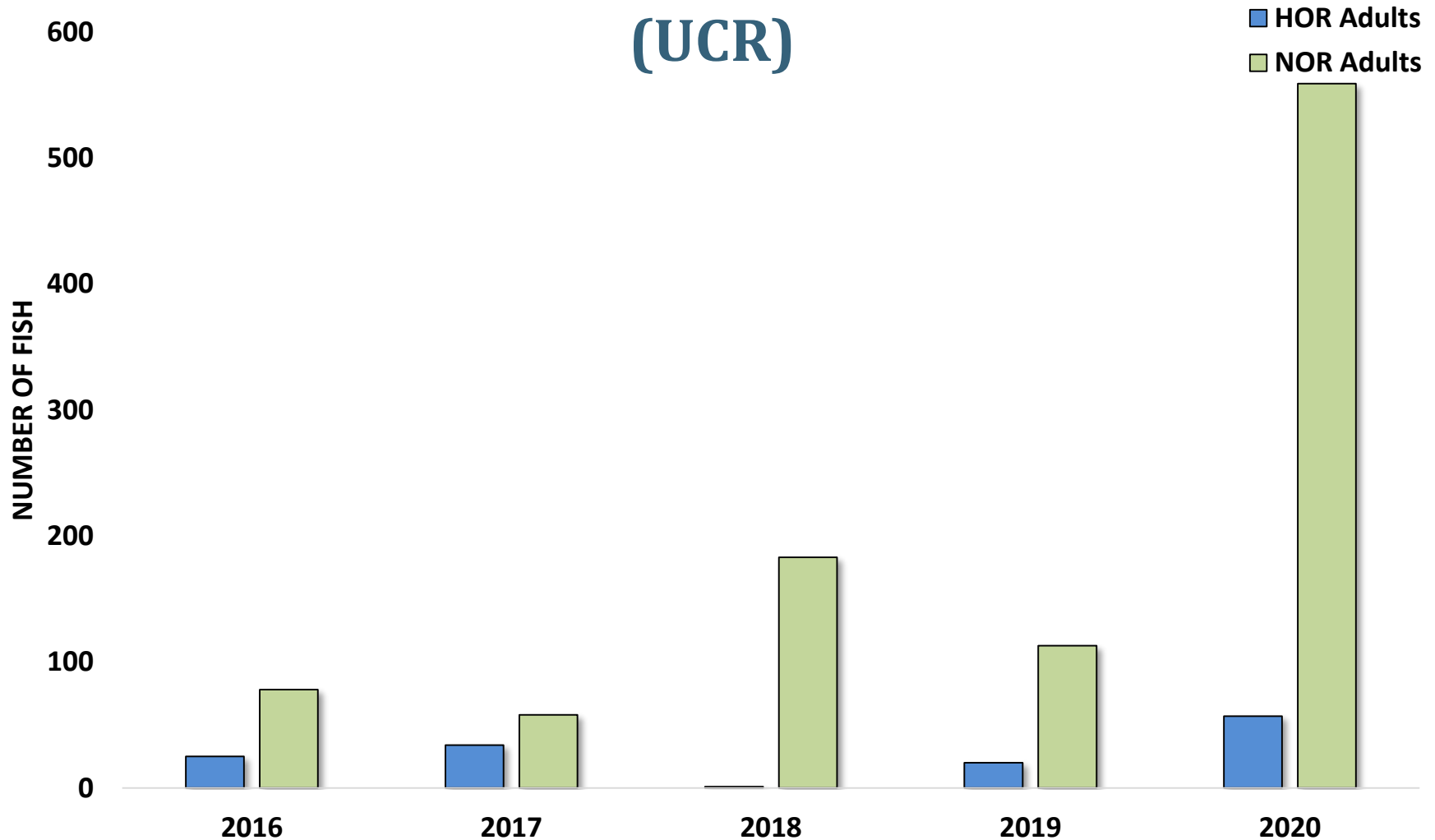
■ HOR Adults
■ NOR Adults



HOR Adults	299	74	185	2	239
NOR Adults	39	153	31	7	29

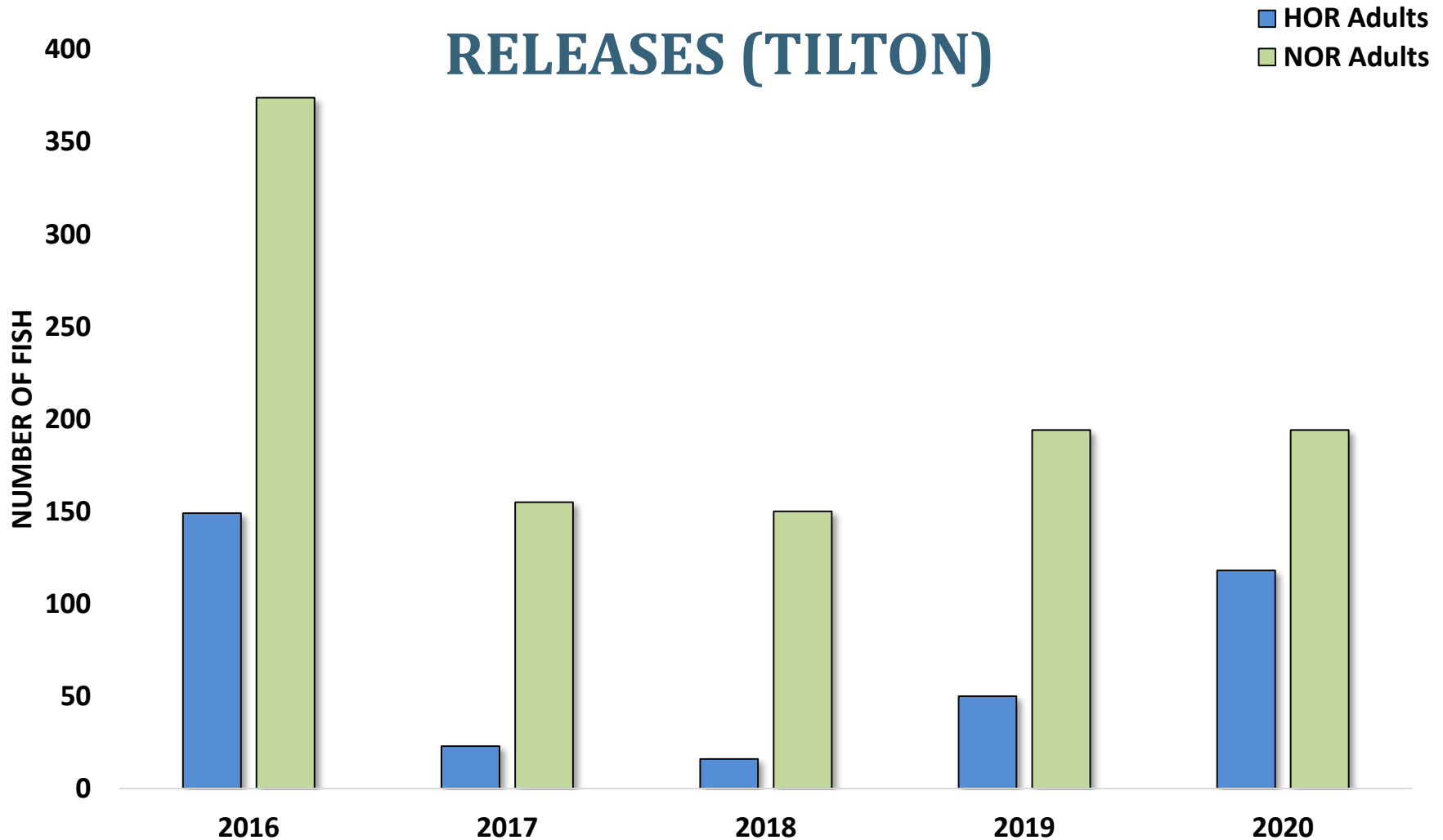
WINTER-RUN STEELHEAD SCANEWA RELEASES

(UCR)

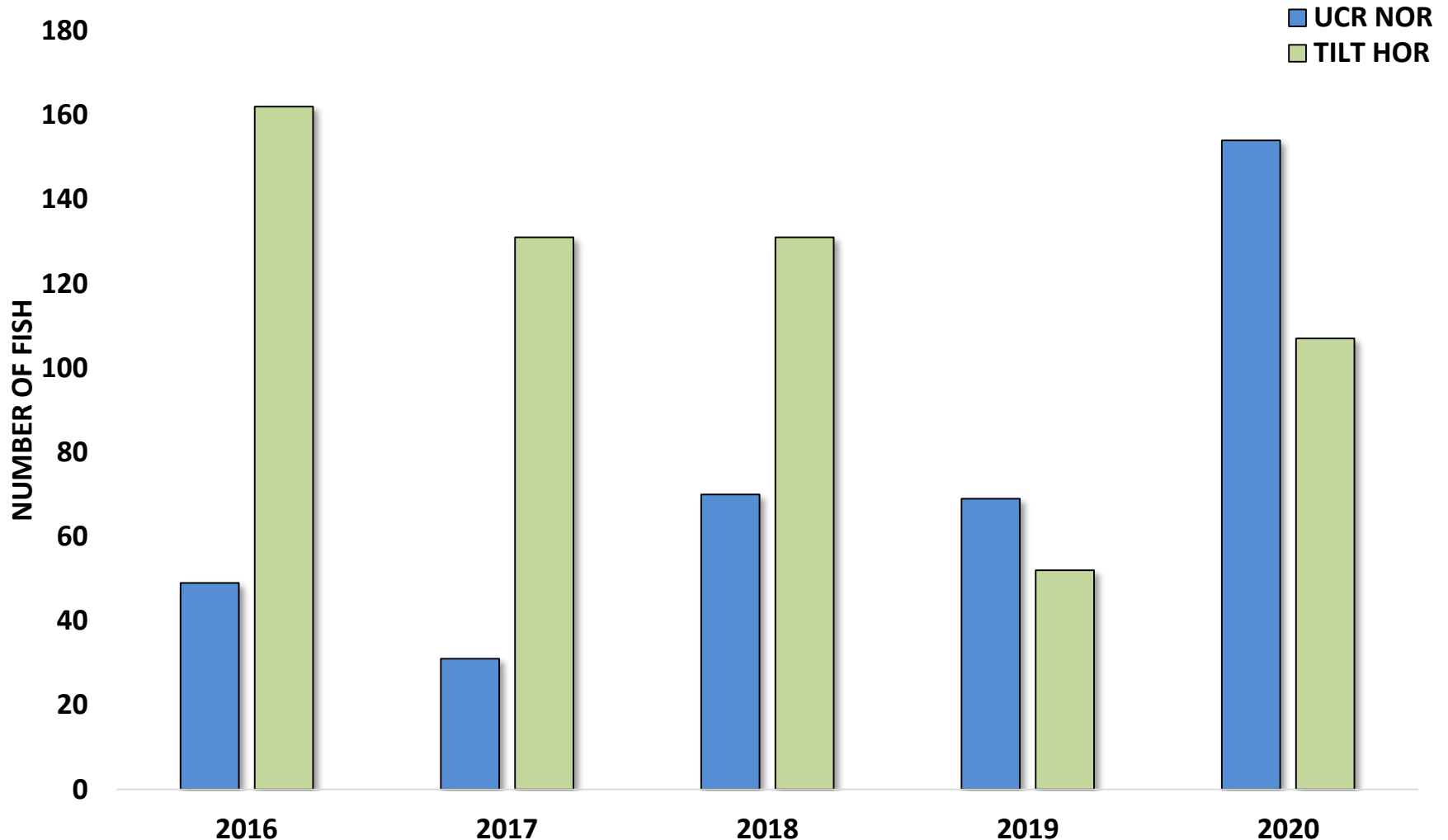


	2016	2017	2018	2019	2020
HOR Adults	25	34	1	20	57
NOR Adults	78	58	183	113	559

WINTER-RUN STEELHEAD GUST BACKSTROM RELEASES (TILTON)



SEA-RUN CUTTHROAT RELEASES (UCR & TILTON)



UCR NOR	49	31	70	69	154
TILT NOR	162	131	131	52	107

GET WEEKLY REPORTS AT MyTPU.org/CowlitzFishReport

2020-2021 Collection Totals

NOTE: The "Total Returns" are the total number of adults that were collected at the Cowlitz Salmon Hatchery Adult Separator.

Coho																		
Run Timing: August 2021-February 2022				Upstream Transportation								Lower Cowlitz		Broodstock		Surplus	Mortality	
Week	Total			Tilton River		Lake Scanewa		Cowlitz @ Packwood		Cispus River								
Ending	Returns	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery	Natural
Season to date	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weekly 5 year average	0	0	0	Notes: Recaptures from studies and recycling are included in the location numbers but they are not included in "Total" Returns.														

Spring Chinook																		
Run Timing: March 2021-October 2021				Upstream Transportation								Lower Cowlitz		Broodstock		Surplus	Mortality	
Week	Total			Tilton River		Lake Scanewa		Cowlitz @ Packwood		Cispus River								
Ending	Returns	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery	Natural
Season to date	187	144	43	0	0	0	35	0	0	0	8	0	0	144	0	0	0	0
30-Apr	137	108	29	0	0	0	29	0	0	0	0	0	0	108	0	0	0	0
Weekly 5 year average	458	448	10	Notes: Recaptures from studies and recycling are included in the location numbers but they are not included in "Total" Returns.														

Fall Chinook																		
Run Timing: August 2021-December 2021				Upstream Transportation								Lower Cowlitz		Broodstock		Surplus	Mortality	
Week	Total			Tilton River		Lake Scanewa		Cowlitz @ Packwood		Cispus River								
Ending	Returns	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery	Natural
Season to date	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weekly 5 year average	0	0	0	Notes: Recaptures from studies and recycling are included in the location numbers but they are not included in "Total" Returns.														

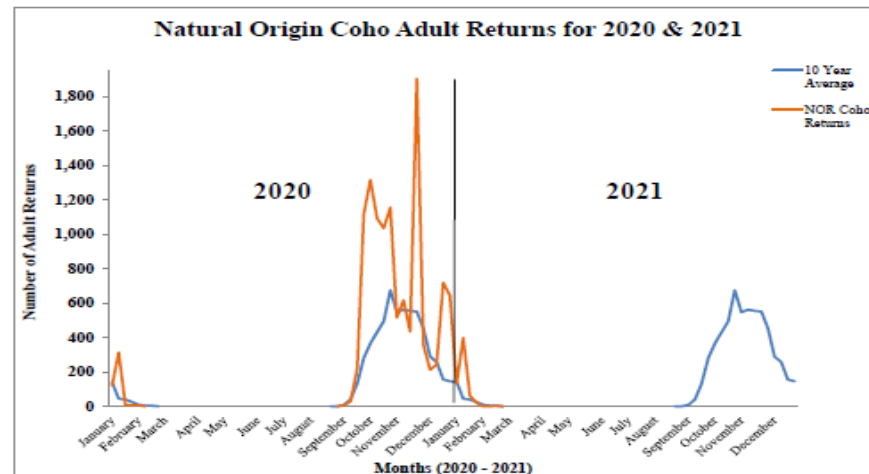
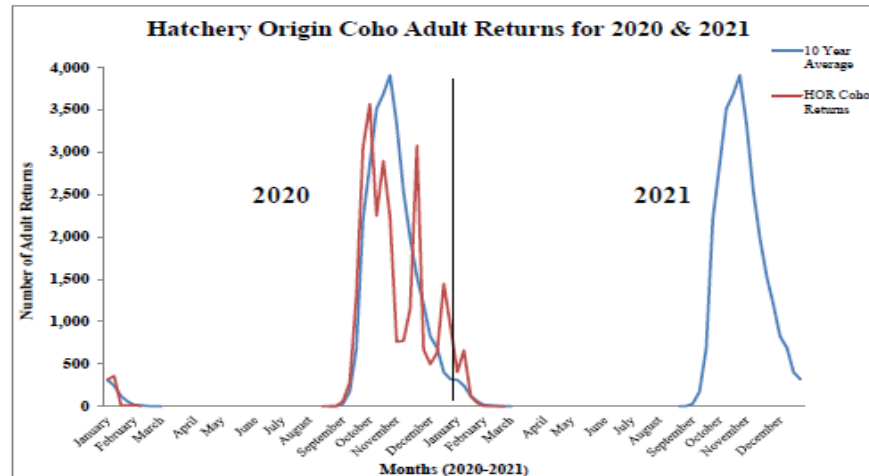
Winter-Run Steelhead																		
Run Timing: November 2020-July 2021				Upstream Transportation								Lower Cowlitz		Broodstock		Surplus	Mortality	
Week	Total			Tilton River		Lake Scanewa		Cowlitz @ Packwood		Cispus River								
Ending	Returns	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery	Natural
Season to date	3,305	2,959	346	8	48	4	157	1	5	138	41	0	0	315	98	2,391	3	2
30-Apr	229	204	25	4	3	0	17	0	0	11	0	0	0	5	188	1	0	0
Weekly 5 year average	329	311	18	Notes: Recaptures from studies and recycling are included in the location numbers but they are not included in "Total" Returns.														

Summer-Run Steelhead																		
Run Timing: May 2020-December 2020				Upstream Transportation								Lower Cowlitz		Broodstock		Surplus	Mortality	
Week	Total			Tilton River		Lake Scanewa		Cowlitz @ Packwood		Cispus River								
Ending	Returns	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery	Natural
Season to date	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
30-Apr	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Weekly 5 year average	11	11	0	Notes: Recaptures from studies and recycling are included in the location numbers but they are not included in "Total" Returns.														

Cutthroat Trout																		
Run Timing: January 2021-December 2021				Upstream Transportation								Lower Cowlitz		Broodstock		Surplus	Mortality	
Week	Total			Tilton River		Lake Scanewa		Cowlitz @ Packwood		Cispus River								
Ending	Returns	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Natural	Hatchery	Hatchery	Natural
Season to date	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
30-Apr	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weekly 5 year average	0	0	0	Notes: Recaptures from studies and recycling are included in the location numbers but they are not included in "Total" Returns.														

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Returning Adults to the Cowlitz Salmon Hatchery Separator through April 30, 2021



QUESTIONS?



*Our new Bremer
Bridge release site*