

**Adult Salmon and Steelhead Counts
at the North Fork Fish Ladder
2004 and 2005**

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1.0 INTRODUCTION

Migrating adult salmon and steelhead must pass four dams in route to their spawning grounds. After passing through the River Mill fish ladder located at river mile (RM) 23.3, fish encounter the tailrace of the Faraday powerhouse located at RM 26.2. The migrating adults then travel 2.2 miles to the North Fork Diversion Dam RM 28.4. Here the fish enter the 1.7-mile long North Fork fish ladder that will take them over both the Diversion Dam and North Fork Dam. Currently, all fish are counted and sorted at the fish trap located 0.2 miles upstream of the fish ladder entrance. In compliance with the Oregon Department of Fish and Wildlife's wild fish management policy, all wild salmon and steelhead are either returned to the fish ladder or trucked around North Fork Dam where they resume their migration upstream. All hatchery fish are recycled downriver or taken to Faraday Lake for fishing opportunity.

The North Fork adult fish trap is a Buckley style fish trap. The floor of the trap rises up to allow sorting by net. Hatchery fish are identified by adipose or other defining fin or maxillary clips, placed into a fish transportation vehicle, and transported to release sites in the lower river or reservoirs. All wild fish are returned to the fish ladder by way of a hydro-tube or trucked around North Fork Dam and allowed to continue upstream to their spawning grounds. Early and late run coho are identified by timing and physical condition.

2.0 RESULTS

2.1 Winter Steelhead

Clackamas winter steelhead are part of the lower Columbia Evolutionary Significant Unit (ESU) and are currently listed as threatened. In 2004 a total of 3,941 adult winter steelhead returned to the North Fork fish trap, of which 2,110 were wild and 1,831 were hatchery. Six hundred ninety clipped steelhead were recycled down stream and 1,141 were placed into Faraday reservoir. Twenty seven of the wild fish were taken to the Clackamas fish hatchery for broodstock supplementation. In 2005 a total of 1,786 adult winter steelhead returned to the North Fork trap. Nine hundred thirty seven of the fish were wild and 849 were hatchery. Twenty eight wild fish were taken to the Clackamas fish hatchery for broodstock supplementation. Seven hundred fifty hatchery fish were recycled down stream, and 98 were taken to Faraday Reservoir (Table 1) (Table 2). All wild fish were past upstream of North Fork Dam.

Previous years' returns to the fish trap included 1,234-winter steelhead in 2003 and 1405 in 2002.

Table 1. Monthly Winter Steelhead Return to North Fork Fish Trap, 2004.

Month	Wild	Hatchery
November	22	0
December	41	1
January	6	0
February	21	0
March	136	62
April	1411	1425
May	463	342
June	10	1
Total	2,110	1,831

Table 2. Monthly Winter Steelhead Return to North Fork Fish Trap, 2005.

Month	Wild	Hatchery
November	29	0
December	32	0
January	6	0
February	0	0
March	104	29
April	439	576
May	325	244
June	2	0
Total	937	849

2.2 Summer Steelhead

Summer steelhead were introduced to the Clackamas River in 1968. To comply with the wild fish management policy, they are no longer allowed to pass upstream of the North Fork fish trap. Instead, hatchery and wild summer steelhead are transported to Faraday Lake or recycled back downriver.

During 2004 a total of 2,658 adult summer steelhead returned to the North Fork fish trap (Table 3). Six hundred six were wild and 2,052 were hatchery. All wild and hatchery fish were recycled downstream. The 2005 summer steelhead return totaled 412 adults. One hundred twenty-three were wild while 289 were hatchery (Table 4). One hundred two wild fish and 190 hatchery fish were hauled back downstream while 71 hatchery fish were placed into Faraday reservoir. Twenty-one wild and 28 hatchery fish were taken to the Clackamas River hatchery to be distributed to food banks.

Previous years' returns to the North Fork fish trap included 1445 adults in 2003 and 4172 adults in 2002.

Table 3. Monthly Summer Steelhead Return to North Fork Fish Trap, 2004.

Month	Unmarked	Marked
April	6	57
May	37	249
June	137	950
July	180	618
August	51	69
September	109	97
October	51	6
November	30	4
December	5	2
Total	606	2,052

Table 4. Monthly Summer Steelhead Return to North Fork Fish Trap, 2005.

Month	Unmarked	Marked
April	2	1
May	33	79
June	18	69
July	34	83
August	26	40
September	5	7
October	5	10
November	0	0
December	0	0
Total	123	289

2.3 Spring Chinook

Clackamas spring chinook are part of the upper Willamette Evolutionary Significant Unit (ESU) and currently listed as threatened. The Clackamas run includes marked and unmarked hatchery fish and naturally produced wild fish.

There were 13,030 spring chinook adults that returned to the North Fork fish trap in 2004. The run consisted of 5,176 wild adults, 66 wild jacks, 7,854 hatchery adults, and 62 hatchery jacks (Table 5). All wild fish were sent upstream and 2,860 of the hatchery adults were recycled downriver along with 62 hatchery jacks. One thousand two hundred thirty-four of the hatchery fish were euthanized and used for upper Clackamas carcass supplementation, while 3,760 hatchery fish were taken to the Clackamas fish hatchery to be distributed to the food banks.

The 2005 spring chinook adult return included 5,786 adults. The run included 2,882 wild adults, 27 wild jacks, 2,904 hatchery adults, 33 hatchery jacks, and 21 coded wire tagged double index fish (Table 6). Two thousand eight hundred eighty-two wild adults were passed above North Fork Dam along with 26 jacks. Twenty-one coded wire tagged

unmarked adults were hauled downstream along with 687 hatchery marked adults and 21 jacks, and 2,217 hatchery adults were taken to the Clackamas fish hatchery to be distributed to the food banks. Previous years' returns to the North Fork Trap included 9,480 adults in 2003 and 5,736 adults in 2002.

Table 5. Monthly Spring Chinook Return to North Fork Fish Trap, 2004.

Month	Unmarked	Hatchery	Jack	CWT
May	413	337	3	0
June	1496	1302	20	0
July	1860	2470	57	0
August	762	1608	25	0
September	560	2067	18	0
October	85	70	5	0
Total	5,176	7,854	128	0

Table 6. Monthly Spring Chinook Return to North Fork Fish Trap, 2005.

Month	Unmarked	Hatchery	Jack	CWT
May	197	57	1	0
June	505	297	5	10
July	1436	1174	24	11
August	490	723	22	0
September	216	621	3	0
October	38	11	5	0
Total	2,882	2,883	60	21

2.4 Early Run Coho

Two components of early run coho occur on the Clackamas River, a wild and a hatchery population. The hatchery population was created by releases from Eagle Creek National Fish Hatchery and is derived from lower Columbia tributary stocks. The wild population is a naturally self-sustaining run above North Fork Dam, which may have been influenced by releases from Eagle Creek National Fish Hatchery. All naturally produced coho in the Clackamas River are listed as endangered by the State of Oregon and are candidates for federal listing.

The 2004 adult early coho return included 1,211 adults and 68 wild jacks (Table 7). Out of the 1,211 adult fish, 1,209 were wild and 2 were clipped. The 1,209 adults and 68 jacks were passed upstream while 2 clipped adults were recycled downstream. In 2005, early run coho return to the North Fork fish trap included 995 wild adults, 122 wild jacks, and 2 clipped adults (Table 8). All fish with no mark were allowed to pass upstream.

Previous years' returns to the North Fork trap included 1,734 adults in 2003 and 803 adults in 2002.

Table 7. Monthly Early Run Coho Return to North Fork Fish Trap, 2004.

Month	Wild	Wild Jack	Clipped Adult
August	1	2	0
September	963	51	0
October	181	13	0
November	66	2	2
December	0	0	0
Total	1,211	68	2

Table 8. Monthly Early Run Coho Return to North Fork Fish Trap, 2005.

Month	Wild	Wild Jack	Clipped Adult
August	8	3	0
September	471	66	0
October	417	38	2
November	99	15	0
December	0	0	0
Total	995	122	2

2.5 Late Run Coho

The late coho run on the Clackamas River is believed to be a native stock and one of the last viable wild coho runs in the Columbia River basin. Due to a decline in the number of returning adults since the mid 1970's a brood stock conservation program was developed to provide for the continued existence of late run coho in the upper Clackamas basin. The conservation program was to continue until the existing population was stabilized. The program was in operation for four years with the last brood stock release in the year 2000.

The 2004-2005 late coho return included 563 wild adults and 28 wild jacks (Table 9). In 2005-2006, 227 wild adults and 42 wild jacks returned to the North Fork fish trap (Table 10). All of the late coho were passed upstream. Previous years' returns to the North Fork fish trap included 371 wild adults in 2003-2004 and 199 wild adults in 2002-2003.

Table 9. Monthly Late Run Coho Return to North Fork Fish Trap, 2004-2005.

Month	Wild	Wild Jack
November	47	16
December	117	3
January	343	9
February	43	0
March	13	0
Total	563	28

Table 10. Monthly Late Run Coho Return to North Fork Fish Trap, 2005-2006.

Month	Wild	Wild Jack
October	8	2
November	139	23
December	52	14
January	28	3
February	0	0
Total	227	42