



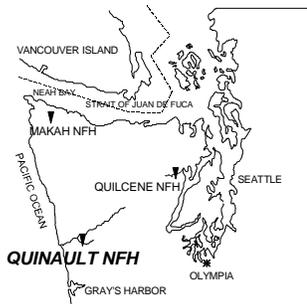
# QUINAULT NATIONAL FISH HATCHERY

## Humptulips, Washington

### INTRODUCTION

The Washington Fish and Wildlife Office (WFWO) and the Olympia Fish Health Center (OFHC) assist the three National Fish Hatcheries (NFH) on the Olympic Peninsula -- Makah, Quilcene, and Quinault (see locale map below). The WFWO, OFHC, and NFHs work together to restore salmon for domestic and international fisheries in compliance with Trust responsibilities to tribes, court orders, agreements with states, and international treaties. WFWO works with cooperators to program and evaluate hatchery production to assure obligations are met with minimal impact on wild fish. OFHC provides fish health diagnostic and treatment services to assure optimum post-release survival of hatchery fish.

This annual report provides basic information on Quinault NFH to inform Service employees, visitors, and our cooperators of their hatchery programs.



Western Washington locale map

Quinault NFH, located within the Quinault Indian Reservation on the Olympic Peninsula, began operating in 1968. Its general goals include rebuilding salmon and steelhead runs along the coast of Washington and contributing to current and future fisheries. Specific objectives to meet these goals vary by species and are described on the following pages.

### QUICK REFERENCE DATA

LEGEND:

AVG	=	Average (mean)
BY	=	Brood Year
FL	=	Fork Length
COS	=	Coho Salmon
CHS	=	Fall Chum Salmon
FCS	=	Fall Chinook Salmon
WST	=	Winter Steelhead
♀	=	Female
♂	=	Male

#### ▶ ADULT AGES AT RETURN

	AGE RANGE	2007 AVG. AGE	1985-2007 AVG. AGE
FCS	2-6 yrs.	4.2	4.0
COS	2-3 yrs.	3.0	2.9
CHS	3-5 yrs.	3.9	3.9
WST	2-6 yrs.	3.4	3.4

#### ▶ ADULT FORK LENGTHS in millimeters (inches)

	FL RANGE	FL MEAN
FCS	350-850mm (14-33")	686mm (27")
COS	280-830mm (11-33")	635mm (25")
CHS	564-893mm (22-35")	715mm (28")
WST	560-900mm (22-35")	674mm (27")

#### ▶ ADULT ENTRY DATES TO HATCHERY

	1988-2007 RANGE	MEAN ENTRY DATE
FCS	Sep - Nov	December 1
COS	Sep - Dec	November 8
CHS	Oct - Dec	November 11
WST	Sep - Feb	December 13

#### ▶ NUMBER AND DATES OF ADULTS SPAWNED

	2007 Date Range	2007 # Spawned			1986-2007 Avg # Spawned
		♂	♀	Total	
FCS	11/07-12/19	2	3	5	80
COS	10/17-01/16	386	391	777	1105
CHS	10/30-12/12	205	232	437	883
WST	10/17-01/16	233	231	464	755

Please direct questions, comments, and suggestions to:



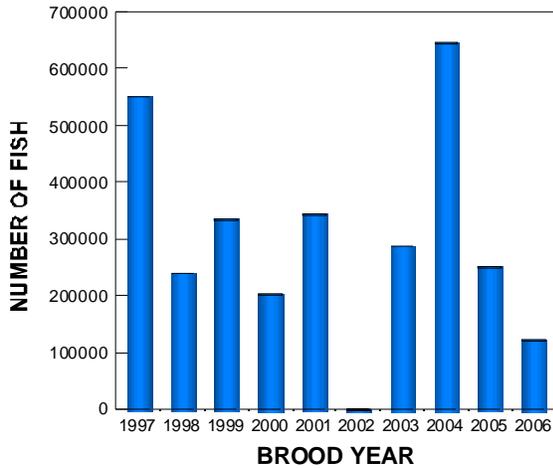
Washington Fish and Wildlife Office  
510 Desmond Drive SE, Suite 102  
Lacey, WA 98503-1273  
(360) 753-9440

Quinault National Fish Hatchery  
3 Sockeye Road  
Humptulips, WA 98552  
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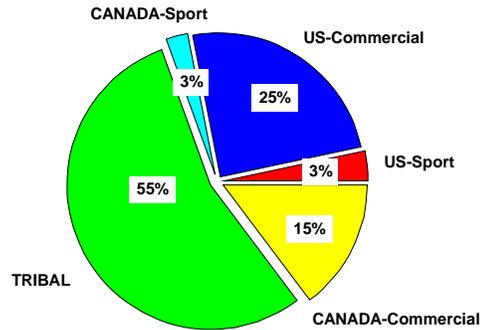


# FALL CHINOOK SALMON

**FALL CHINOOK RELEASES**  
(Brood Years 1997 - 2006)



**CATCH OF FALL CHINOOK**  
(Brood Years 1984 - 2003)



**GOAL:** Enhance fall Chinook population and support coastal Chinook fisheries.

**RELEASES:** Program goal is to release 600,000 subyearlings into Cook Creek, a tributary of the Quinault River, at the hatchery.

**CATCH:** Over 5,000 Quinault NFH adult Chinook are caught in U.S. and Canadian waters each year, of which approximately 2,000 are caught in the Quinault River system. Hatchery production accounts for about one-fourth of the total catch in the river.

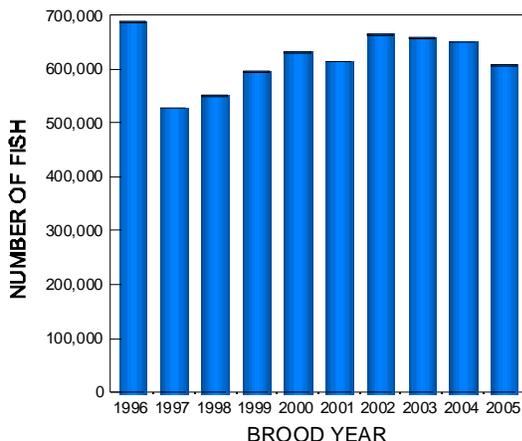
## FCS RETURNS TO HATCHERY RACK AND RIVER BY RETURN YEAR

Return Year	Age at Return					Total Per Year
	2	3	4	5	6	
1998	1	6	19	34	1	61
1999	0	7	42	30	0	79
2000	0	2	28	13	0	43
2001	4	2	26	8	0	40
2002	0	0	9	0	0	9
2003	1	40	122	4	0	167
2004	5	27	54	77	0	163
2005	2	0	39	28	0	69
2006	4	0	5	4	0	13
2007	2	4	14	17	0	37

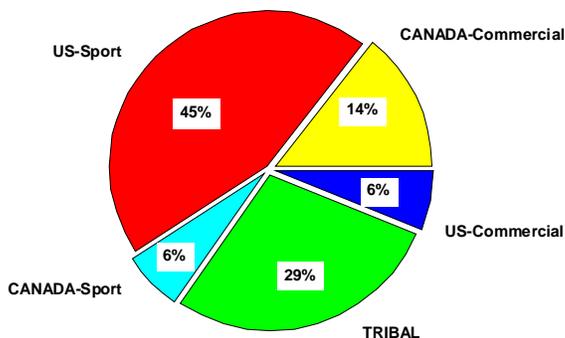
The FCS program is augmented by a successful Quinault Lake broodstock capture program. Increased production is not desired because of considerable natural production in Cook Creek and the Quinault River. Total fishery harvest and hatchery return averages 1 percent of releases. 100 percent Chinook mass marking was initiated in 2005.

# COHO SALMON

## COHO RELEASES (Brood Years 1996 - 2005)



## CATCH OF COHO (Brood Years 1988 - 2004)



**GOAL:** Enhance coho populations and provide fish for coastwide fisheries.

**RELEASES:** The program goal is to release 660,000 yearlings annually into Cook Creek. An additional 140,000 fry may be planted upstream of the hatchery to use the available habitat.

**CATCH:** Over 14,000 adults are caught coastwide or return to the hatchery.

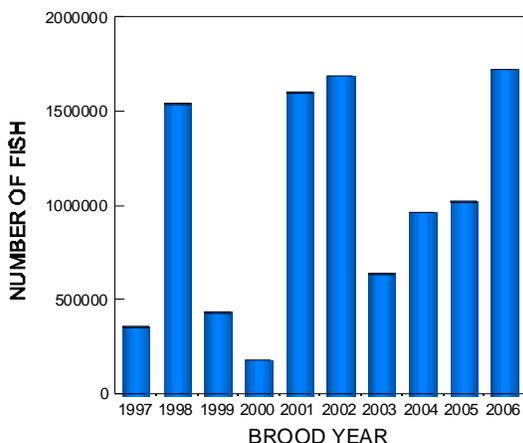
## COHO RETURNS TO HATCHERY RACK BY RETURN YEAR

Return Year	Age at Return		Total per Year
	2	3	
1998	167	698	865
1999	844	2,526	3,370
2000	1,461	11,550	13,011
2001	2,413	7,550	9,963
2002	240	24,551	24,791
2003	416	9,476	9,892
2004	1,212	8,601	9,813
2005	378	8,787	9,165
2006	1,376	2,833	4,209
2007	1,310	12,061	13,371

The number of adult returns indicates a successful coho program. Total survival rate averages 2.3 percent. A density study to determine the effects of three production levels on adult survival rates has been completed and the results will be reported in the near future. Coho are mass marked to support selective fisheries.

# CHUM SALMON

## CHUM RELEASES (Brood Years 1997 - 2006)



## CATCH OF CHUM (1997 - 2007)

Calendar Year	Number Caught Quinault River
1997	1,037
1998	4,727
1999	594
2000	754
2001	2,005
2002	1,178
2003	3,450
2004	2,914
2005	1,283
2006	862
2007	1,172

**GOAL:** Enhance chum populations and provide fish to fisheries. The chum program is managed as a composite hatchery/natural program, since many fish spawn in Cook Creek below the hatchery and in the Quinault River.

**RELEASES:** An average of 914,000 hatchery fry are released at the hatchery into Cook Creek.

**CATCH:** The Quinault River yields an average catch of 1,914 chum (hatchery/natural composite).

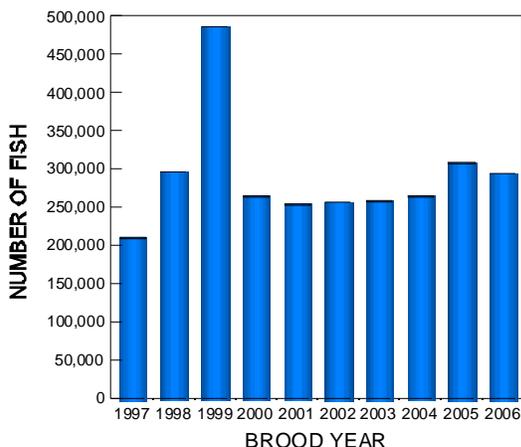
## CHUM RETURNS TO HATCHERY RACK BY RETURN YEAR

Return Year	Age at Return				Total Per Year
	3	4	5	6	
1997	365	207	5	0	577
1998	10	2,464	19	0	2,493
1999	37	170	303	0	510
2000	115	93	11	0	219
2001	1,922	949	25	0	2,896
2002	397	2,276	409	0	3,082
2003	406	1,024	33	0	1,463
2004	778	356	11	0	1,145
2005	105	424	281	0	810
2006	340	1,381	0	0	1,721
2007	130	337	63	0	530

**Cook Creek supports significant natural production.  
Hatchery production exists solely from adults returning to the hatchery.**

# WINTER STEELHEAD

## WINTER STEELHEAD RELEASES (Brood Years 1997 - 2006)



## CATCH OF WINTER STEELHEAD (1997 - 2008)

Catch Year	Number Caught Quinault River
1997-98	1,442
1998-99	2,484
1999-00	720
2000-01	2,585
2001-02	2,384
2002-03	1,433
2003-04	1,725
2004-05	530
2005-06	1,632
2006-07	1,035
2007-08	1,933

**GOAL:** Enhance steelhead populations and provide fish to tribal and sport fisheries.

**RELEASES:** Quinault NFH releases an average of 242,000 yearlings at the hatchery, plants 50,000 yearlings in the Hoh River, and transfers 50,000 subyearlings to the Hoh Tribe. An additional 20,000 fry may be planted upstream of the hatchery to use the available habitat.

**CATCH:** An average of 1,600 hatchery fish are caught in the Quinault River system. Catches are composed of NFH and Quinault Lake tribal hatchery production.

## WST RETURNS TO HATCHERY RACK BY RETURN YEAR

Return Year	Age at Return					Total Per Year
	2	3	4	5	6	
1998-99	1	2,061	901	0	0	2,963
1999-00	0	1,004	582	0	0	1,586
2000-01	2	1,233	1,377	0	0	2,612
2001-02	0	6,166	2,066	0	0	8,232
2002-03	4	1,288	864	8	0	2,164
2003-04	4	2,348	1,230	16	0	3,598
2004-05	49	1,290	926	0	0	2,265
2005-06	1	751	716	13	0	1,481
2006-07	1	745	714	17	0	1,477
2007-08	0	1,132	666	0	0	1,798

**The number of adult returns indicates a successful program. Total survival rate exceeds 1.7 percent. Broods 2004, 2005, and 2006 were mass marked.**