

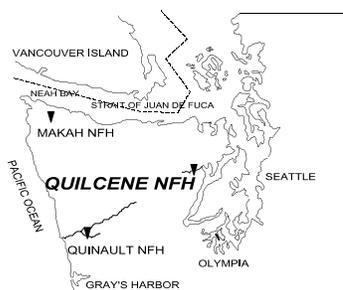


QUILCENE NATIONAL FISH HATCHERY

Quilcene, Washington

INTRODUCTION

The Western Washington Fish and Wildlife Office (WWFWO) and the Olympia Fish Health Center (OFHC) assist the three National Fish Hatcheries (NFH) on the Olympic Peninsula -- Makah, Quilcene, and Quinalt (see locale map below). The WWFWO, 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. WWFWO 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.



Western Washington locale map

Quilcene NFH, located in the Hood Canal area of Puget Sound, began operating in 1911. Its general goals include rebuilding salmon runs in Puget Sound and coastal 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
 SHS = Summer Chum Salmon
 ♀ = Female
 ♂ = Male

▶ **ADULT AGES AT RETURN**

	AGE RANGE	2002 AVG. AGE	1985-2002 AVG. AGE
COS	2-3 yrs.	3.0	2.9
CHS	3-5 yrs.	3.8	3.8
SHS	3-5 yrs.	3.2	3.5

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

	FL RANGE	FL MEAN
COS	246-823mm (10-32")	507mm (20")
CHS	509-878mm (20-34")	732mm (29")
SHS	485-781mm (19-31")	698mm (27")

▶ **ADULT ENTRY DATES TO HATCHERY**

	1988-2002 RANGE	MEAN ENTRY DATE
COS	Jul - Dec	September 20
CHS	Nov - Dec	December 3
SHS	Aug - Oct	September 25

▶ **NUMBER AND DATES OF ADULTS SPAWNED**

	2002 Date Range	2002 # Spawned			1986-2002 Avg # Spawned
		♂	♀	Total	
COS	09/24-10/02	653	654	1307	1157
CHS	11/20-12/31	670	671	1341	1424
SHS	09/04-10/03	96	118	214	338

Please direct questions, comments, and suggestions to:



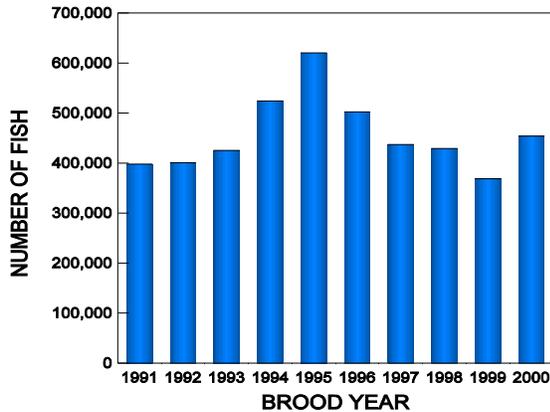
Western Washington Fish and Wildlife Office
 510 Desmond Drive SE, Suite 102
 Lacey, WA 98503-1273
 (360) 753-9440

Quilcene National Fish Hatchery
 281 Fish Hatchery Road
 Quilcene, WA 98376
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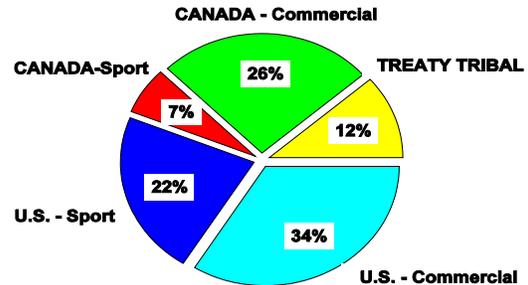


COHO SALMON

COHO RELEASES (Brood Years 1991 - 2000)



CATCH OF COHO (Brood Years 1987-1999)



OBJECTIVE: Provide coastwide fishing opportunities for all users.

RELEASES: Since 1990, approximately 436,000 coho yearlings, averaging 5.5 inches, have been released each year into the Big Quilcene River in mid-May. In addition, 300,000 pre-smolts have been transferred annually to Quilcene Bay net pens (Skokomish Tribe) and 500,000 eggs have been transferred to George Adams Hatchery (WA Dept. of Fish & Wildlife) to be used in Port Gamble Bay (Point No Point Treaty Council) pens. Approximately 300 adults will be passed above the hatchery to utilize upstream spawning and rearing habitat.

CATCH: An average of 5.6% (24,300) of the fish released are caught in fisheries or escape to spawn. Major fisheries are located off the west coast of Vancouver Island and in the Strait of Juan de Fuca, Puget Sound, northern Hood Canal, and Quilcene Bay.

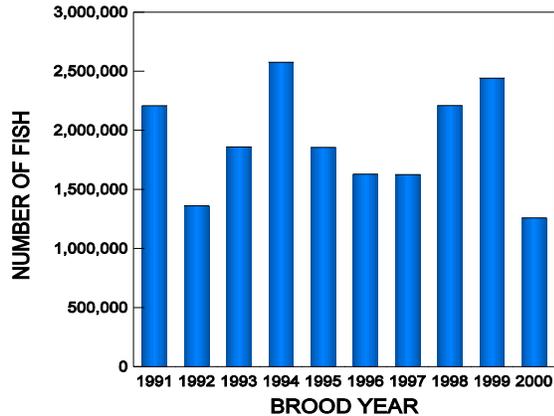
COHO RETURNS TO HATCHERY RACK BY RETURN YEAR

Return Year	Age at Return		Total per Year
	2	3	
1993	320	7,546	7,866
1994	263	14,068	14,331
1995	4,414	15,649	20,063
1996	199	7,947	8,146
1997	2,917	24,998	27,915
1998	887	10,497	11,384
1999	507	6,620	7,127
2000	369	15,225	15,594
2001	736	16,205	16,941
2002	494	13,551	14,045

Quilcene NFH's coho program continues to thrive. A limited coho mass-marking program was initiated in the fall/winter of 1997-98 to support selective fisheries.

FALL CHUM SALMON

*FALL CHUM RELEASES
(Brood Years 1991 - 2000)*



*CATCH OF FALL CHUM
(Brood Years 1988-1998)*

Brood Year	Number Caught	Number Escaped
1988	3,153	2,316
1989	3,008	1,980
1990	43,069	44,145
1991	21,240	20,482
1992	7,841	9,587
1993	14,286	14,932
1994	2,064	4,256
1995	7,652	11,950
1996	391	517
1997	2,153	3,579
1998	8,824	15,733

OBJECTIVE: Contribute to Puget Sound fisheries. The chum program is managed as a composite hatchery/natural program, since many fish spawn in the river below the hatchery.

RELEASES: Over the past 10 years, approximately 1.78 million hatchery fry (1.6 inches in length) have been released each year into the Big Quilcene River in early May. Natural production from the river is undetermined, but substantial.

CATCH: Annually, an average of 11,750 adults from hatchery-produced fry are caught in Puget Sound fisheries and over 9,000 adults return to the Quilcene River to spawn at the hatchery or in the river.

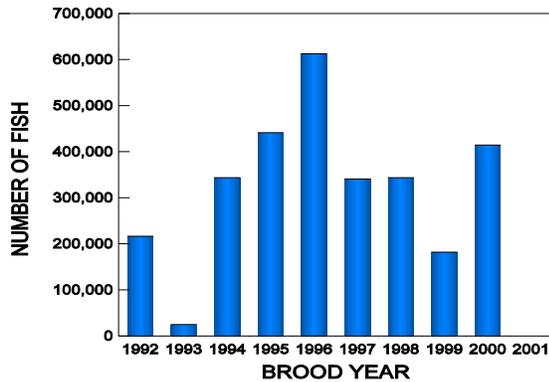
FALL CHUM RETURNS TO HATCHERY RACK BY RETURN YEAR

Return Year	Age at Return			Total per Year
	3	4	5	
1993	2,673	763	28	3,464
1994	1,100	11,166	19	12,285
1995	361	3,622	591	4,574
1996	1,847	1,847	65	3,758
1997	323	3,782	52	4,158
1998	1,583	3,036	77	4,695
1999	112	5,105	28	5,244
2000	64	58	16	138
2001	406	284	0	690
2002	840	2,563	22	3,424

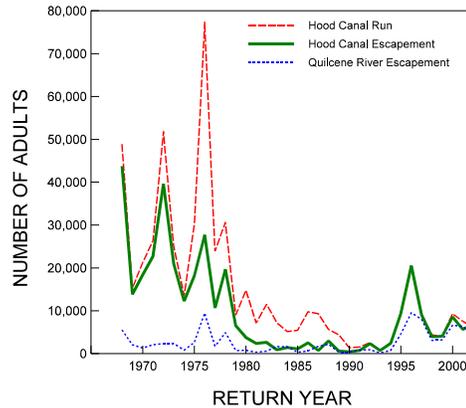
This program is scheduled to be discontinued in 2004 as a result of the hatchery reform and review process.

SUMMER CHUM SALMON

*SUMMER CHUM RELEASES
(Brood Years 1992 - 2001)*



*ESTIMATED SUMMER CHUM RUN
SIZE AND ESCAPEMENT*



OBJECTIVE: Increase survival of Quilcene summer chum. Summer chum runs in Hood Canal streams have declined dramatically since the late 1970's. In 1999, the stock was listed as threatened under the Endangered Species Act. Possible factors contributing to this decline include loss of high quality habitat, overfishing, low water flows, and competition from hatchery releases.

In 1992, the U.S. Fish and Wildlife Service, Point No Point Treaty Council, and Washington Department of Fish and Wildlife began a restoration program using Quilcene NFH as a hatching and release location for Big Quilcene River summer chum. Broodstock are captured from Quilcene Bay and transported to the hatchery for spawning. The resulting fry are released from the hatchery in early spring.

RELEASES: The current goal is to release up to 400,000 fry annually into the Big Quilcene River and deliver an eyed-egg equivalent of up to 100,000 fry to Big Beef Creek Hatchery (WDFW).

CATCH: As a conservation measure, no directed harvest of summer chum occurs in Hood Canal. However, some chum are caught incidentally in Quilcene Bay coho fisheries and Strait of Juan de Fuca sockeye fisheries. Catch in outside fisheries occurs off Vancouver Island.

ANNUAL SUMMER CHUM RETURNS TO QUILCENE RIVER

Return Year	Age at Return				Total per Year
	2	3	4	5	
1993	8	8	25	95	136
1994	7	661	44	9	721
1995	0	4,331	189	0	4,520
1996	173	365	8,712	0	9,250
1997	34	6,995	482	362	7,873
1998	7	1,833	938	14	2,792
1999	0	1,913	1,240	0	3,153
2000	0	634	4,996	0	5,630
2001	0	1,760	4,265	149	6,174
2002	0	3,237	664	116	4,017

The Quilcene NFH summer chum program is expected to continue improving Quilcene Bay returns. As described in the recovery plan, 2003 is the final year of broodstock collection and spawning for this restoration program.