

STRAIT OF JUAN DE FUCA – HOKO FALL CHINOOK

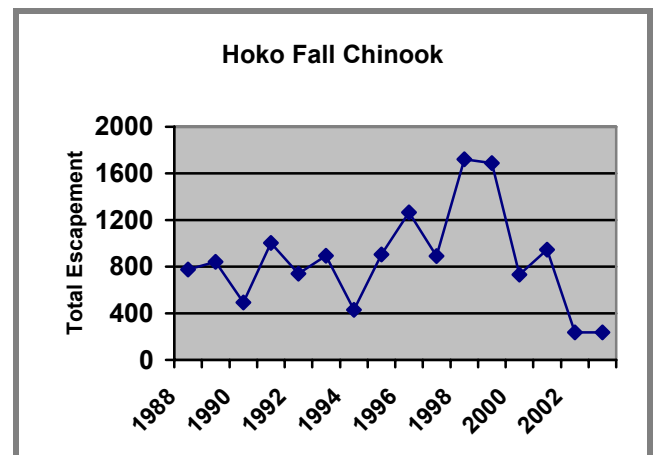
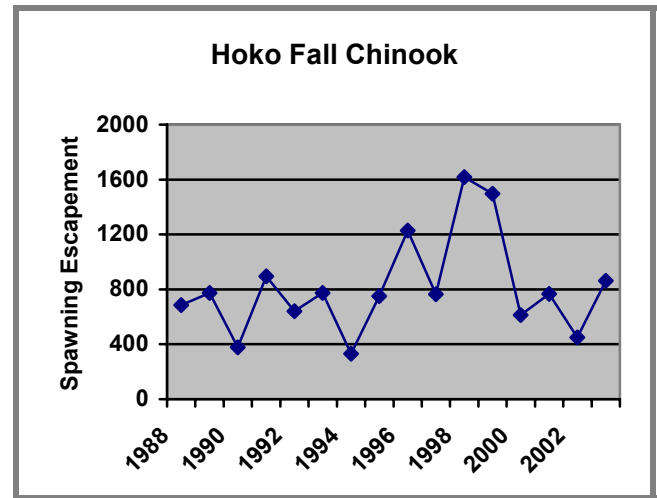
STOCK STATUS

1992 STATUS Depressed	2002 STATUS Depressed
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STOCK STATUS RATING DATA

USEFULNESS FOR RATING STOCK STATUS: *Very Good*

YEAR	SPAWNING ESCAPEMENT	BROODSTOCK REMOVALS	TOTAL ESCAPEMENT
1988	686	90	776
1989	775	67	842
1990	378	115	493
1991	894	112	1,005
1992	642	98	740
1993	775	119	894
1994	332	96	428
1995	750	155	905
1996	1,228	37	1,265
1997	765	126	891
1998	1,618	104	1,722
1999	1,497	191	1,688
2000	612	119	731
2001	768	178	718
2002	449	237	686
2003	863	237	1,100



Data are: 1) estimates of the number of spawners after up to 100 pairs of Chinook are removed for broodstock for the Makah Tribe's Hoko Chinook rebuilding program, 2) numbers of Chinook actually removed for broodstock, and 3) total run escapement (spawners plus broodstock).

Spawner estimates are expanded from redd counts in the upper and lower mainstem Hoko; the little Hoko River, a tributary to the lower Hoko; Herman, North Fork Herman, Ellis Bear, Cub and Brownes creeks, all tributaries to the upper Hoko river.

Stock status is rated **Depressed** in 2002 because of **chronically low** escapements and the poor replacement rate of natural-origin recruits. Although the overall trend may be increasing, natural

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production has not provided any significant surplus out of most brood years to guard against natural downturns in survival, effects of predation or other sources of mortality, including fishery-related mortality. However, the overall increasing trend in natural-origin recruits and the recent escapements that have exceeded the escapement goal of 850 spawners suggest that the viability of the stock may be gradually increasing.

STOCK DEFINITION

Hoko Chinook were identified as a stock based on their distinct spawning distribution. Stock identification has been supported by genetic analysis.

SPAWNING DISTRIBUTION: Most spawning takes place in the mainstem up to about RM 21.5, in the little Hoko River, a tributary to the lower Hoko mainstem and in Herman, Ellis, Bear, Cub and Brownes creeks, upper Hoko mainstem tributaries.

SPAWNING TIMING: Spawning generally begins in late September and extends through late November.

GENETIC ANALYSIS: Allozyme analysis has shown that Hoko Chinook are genetically distinct from all other Washington Chinook stocks examined, although they share some allele frequency similarities with north coastal stocks (Marshall et al. 1995).

STOCK ORIGIN

This is a **native** stock with **composite** production. The Makah Tribe is conducting a hatchery-supplementation program that uses native broodstock to rebuild the stock.