

LOWER COLUMBIA – SKAMOKAWA CREEK/ELOCHOMAN FALL CHINOOK

The Skamokawa Creek fall Chinook stock has been combined with the Elochoman fall Chinook stock because the Lower Columbia Technical Recovery Team concluded that Skamokawa Creek is not large enough to support a viable, independent Chinook population.

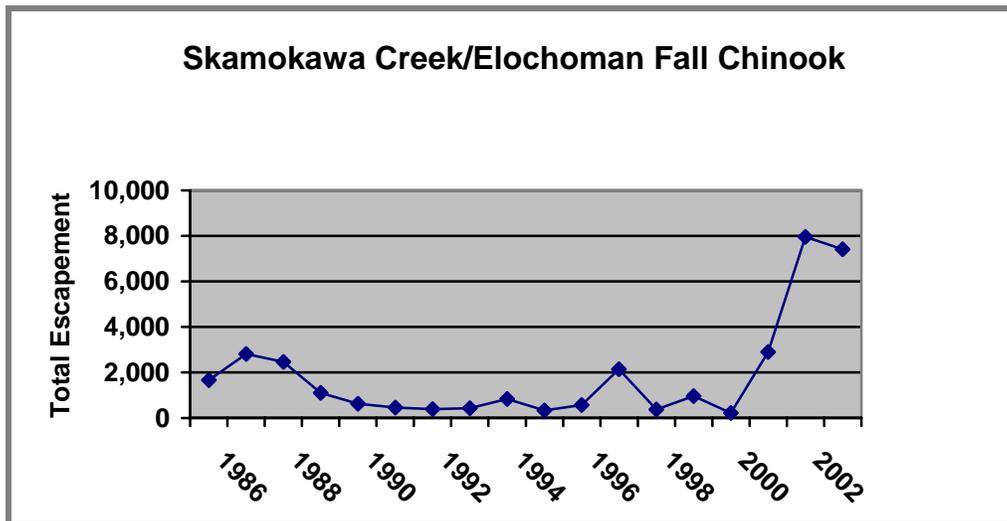
STOCK STATUS

1992 STATUS	2002 STATUS
Healthy	Healthy

STOCK STATUS RATING DATA

USEFULNESS FOR RATING STOCK STATUS: Good

YEAR	SKAMOKAWA ESCAPEMENT	ELOCHOMAN ESCAPEMENT	STOCK TOTAL ESCAPEMENT
1986	756	915	1,671
1987	356	2,458	2,814
1988	1,090	1,370	2,460
1989	980	122	1,102
1990	451	174	625
1991	269	196	465
1992	202	190	392
1993	145	288	433
1994	316	521	837
1995	184	156	340
1996	42	533	575
1997	264	1,875	2,139
1998	145	228	373
1999	251	718	969
2000	27	196	223
2001	536	2,354	2,890
2002	372	7,581	7,953
2003	588	6,820	7,408



Skamokawa Creek data are total escapement estimates expanded from annual peak live plus dead spawner counts from the confluence of Standard and McDonald creeks (RM 6.8)

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downstream to Wilson Creek (RM 1.9). Elochoman data are total escapement estimates expanded from annual peak live plus dead spawner counts from the Elochoman Hatchery (RM 9.5) downstream to the Foster Road bridge (RM 2.2).

Stock status is rated **Healthy** in 2002. Generally, tule fall Chinook stocks, including Skamokawa Creek/Elochoman fall Chinook, experienced poor survival in the 1990s. Currently natural spawning abundance is a reflection of adult returns to the Elochoman Hatchery in excess of hatchery requirements.

STOCK DEFINITION

Skamokawa Creek/Elochoman fall Chinook were identified as a stock based on their spawning distribution, proximity, and presumed high levels of contribution from the Lower River Hatchery (LRH) fish. LRH is a mixed-origin hatchery stock that has been released widely in the lower Columbia River. Fall Chinook from lower Columbia River hatcheries have been transferred from hatchery to hatchery and released throughout the lower Columbia Basin.

SPAWNING DISTRIBUTION: Most spawning in Skamokawa Creek takes place in a 4.5-mile stretch from Wilson Creek upstream to Standard and MacDonald creeks. Most spawning in the Elochoman takes place in the mainstem between RM 4 and 9.

SPAWNING TIMING: Spawning generally occurs from late September to mid-November.

GENETIC ANALYSIS: Samples of fall Chinook spawners from the Elochoman were taken in 1995 and 1997. Marked Rogue River (Oregon) Chinook from net pen releases have been found in the Elochoman River, and 23 were included in the 1995 sample. When known Rogue River fish were removed from the sample, allozyme analysis showed that Elochoman Chinook allele frequencies were similar to but distinct from those of other Columbia River Chinook. Some introgression with Rogue River fish may have occurred (Marshall et al. 1995). Samples of Elochoman fall Chinook spawners were taken in 1995 and 1997. Marked Rogue River (Oregon) Chinook from net pen releases have been found in the Elochoman River, and 23 were included in the 1995 sample. When known Rogue River fish were removed from the sample, allozyme analysis showed that Elochoman Chinook allele frequencies were similar to but distinct from those of other Columbia River Chinook. Some introgression with Rogue River fish may have occurred (Marshall et al. 1995).

No genetic analysis has been done on Chinook in Skamokawa Creek.

STOCK ORIGIN

This is a **mixed** stock with **composite** production and is similar in life history to other tule fall Chinook stocks in the lower Columbia. Currently a significant portion of the naturally spawning Chinook are hatchery strays (Harlan 1999).