

QUILLAYUTE – CALAWAH WINTER STEELHEAD

STOCK STATUS

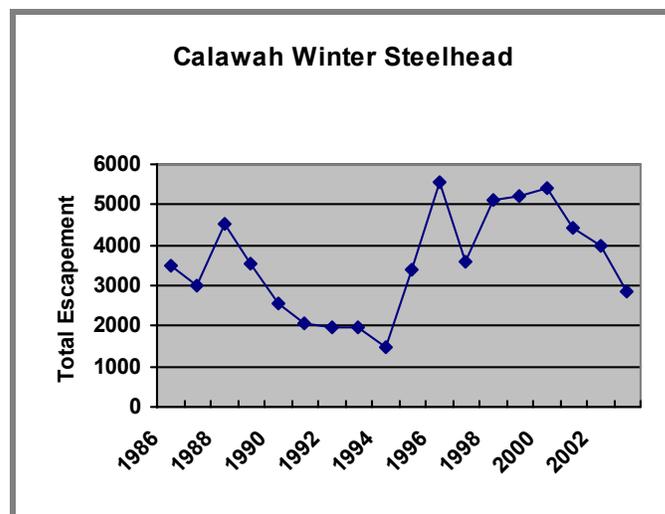
1992 STATUS Healthy	2002 STATUS Healthy
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Winter steelhead spawner escapement has been monitored for the Quillayute River system, which includes the Sol Duc, Quillayute/Bogachiel, Calawah and Dickey steelhead stocks, since 1978. In 1985, WDFW and the Quileute Tribe agreed to a wild steelhead spawner escapement goal of 5,900 for the entire Quillayute River system.

STOCK STATUS RATING DATA

USEFULNESS FOR RATING STOCK STATUS: Excellent

YEAR	TOTAL ESCAPEMENT
1986	3,480
1987	2,994
1988	4,526
1989	3,556
1990	2,573
1991	2,046
1992	1,957
1993	1,945
1994	1,458
1995	3,375
1996	5,558
1997	3,607
1998	5,124
1999	5,210
2000	5,411
2001	4,413
2002	3,990
2003	2,850



Data are total escapement estimates based upon redd counts in index reaches and supplemental survey observations. Index surveys are conducted on the mainstem Calawah River (RM 6.6 to 8.7), North Fork Calawah River (RM 0.0 to 2.5 and RM 8.6 to 10.7), South Fork Calawah River (RM 13.3 to 15.3) and Sitkum River (RM 0.0 to 1.5). Other index areas include tributaries Hyas Creek (RM 0.0 to 0.5) and Cool Creek (RM 0.0 to 1.9). Supplemental survey sections include the mainstems of the South Fork Calawah, North Fork Calawah and Sitkum rivers, Elk, Devil's, Hyas creeks and unnamed tributary 20.0184. Due to the large area of the Quillayute system used by spawning winter steelhead, only a limited portion can be surveyed on a weekly or bi-weekly schedule. To account for redd production in the mainstem reach used by winter steelhead, four to six helicopter surveys are conducted to count visible redds during the season.

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Since 1978, the entire escapement for the Quillayute system averaged 10,205, of which 31% spawned in the Calawah watershed. Since 1992, wild steelhead escapements in the Calawah River have ranged from 1,458 to 5,558 and averaged 3,806. During the past five seasons the Calawah River and Quillayute system escapements have averaged 4,753 and 14,251, respectively. This stock is again rated **Healthy** in 2002.

STOCK DEFINITION

Calawah winter steelhead were identified as a stock based on their distinct spawning distribution.

SPAWNING DISTRIBUTION: Spawning takes place in the mainstem Calawah, north and south forks of the Calawah and in the Sitkum rivers. Spawning also occurs in tributaries such as Hyas, Elk, Cool, Pistol, Albion, Lost and Devil's creeks as well as in unnamed tributary 20.0184.

SPAWNING TIMING: Spawning generally occurs from mid-March to mid-June.

GENETIC ANALYSIS: Allozyme analysis has shown this stock to be relatively similar to other northern coastal steelhead stocks examined (Reisenbichler and Phelps, 1989). Phelps et al (1997) found that Calawah juvenile steelhead sampled in 1994 had close genetic relationships with other Quillayute Basin stocks. Quillayute stocks are genetically distinct compared to those in Queets, Hoh, Quinault (other North Coast basins), based on the cluster analyses (Fig 1-A for example) shown in Phelps et al. 1997.

STOCK ORIGIN

This is a **native** stock with **wild** production.