State of Alaska
Department of Fish and Game
Division of Sport Fish

Nomination Form
Anadromous Waters Catalog

83

Region: South Central

USGS Quad(s): Seldovia D-3

Anadromous Waters Catalog Number of Waterway: 241-14-10660

Name of Waterway: Fox Creek

☒ USGS Name ☐ Local Name

☐ Addition ☐ Deletion ☐ Correction ☒ Backup Information

ALASKA DEPT. OF FISH & GAME
OCT 29 2009

For Office Use

Nomination #	09-1532		
		Fisheries Scientist	Date
Revision Year:	2010		
Revision to:	Atlas ____ Catalog ____	Habitat Operations Manager	Date
	Both ____		30OCT09
		AWC Project Biologist	Date
Revision Code:	F-1		
		Cartographer	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
sockeye salmon	1979			✓	☑
coho salmon	1979			✓	☑
					☐
					☐
					☐

IMPORTANT: Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map showing location of mouth and observed upper extent of each species, as well as other information such as: specific stream reaches observed as spawning or rearing habitat; locations, types, and heights of any barriers; etc.

Comments:

See attached documents substantiating anadromous sockeye, coho and presence of Dolly Varden.

Name of Observer (please print): Nick Dudiak

Signature:

Date: 1979

Agency: ADFG

Address: 3298 Douglas Place
Homer, AK 99603

This certifies that in my best professional judgment and belief the above information is evidence that this waterbody should be included in or deleted from the Anadromous Waters Catalog.

Signature of Area Biologist: [signature] Date: 10/26/2009

Revision

02/08

classes. Analysis of variance of the length regression indicated that the size of the outmigrants was the same for all periods.

Several precocious male cohos averaging 457 mm (18 in) in fork length and weighing 908 g (2 lb) were caught through the ice by sport fishermen at Caribou Lake during the last two years. Analyses of scale samples showed that these fish had one summer's ocean growth, indicating the ability of these smaller fish to migrate upstream over the adult migrational barriers.

Dolly Varden, threespine stickleback, and sockeye salmon were the other fishes encountered during the fyke net study. Dolly Varden trapped daily. During the first six days of the study, 127 were counted. After this, time-catch data were not recorded. Threespine sticklebacks were caught in low numbers, mainly found entangled in the fyke net.

Although Caribou Lake has a population of landlocked sockeye salmon (kokanee), there are also a small number that are anadromous. An estimated 200 adult sockeye were passed through the fyke net system to the lake between 11 June and 6 July 1978. Only eight sockeye smolts were collected from the fyke net during the study. It is not known whether these smolts were truly outmigrating from the lake or were kokanee moving and feeding within the outlet stream.

Adult Return Monitoring. We monitored the returning adults on Fox Creek, Caribou Lake's outlet stream, during the summer and fall of 1978. This study documented a total of 2,831 ±400 coho salmon adults returning to the Fox Creek system. The estimated range is wide because field biologists were forced to use rough estimates on two occasions when flooding opened the weir. This happened once on September 5 following the largest single influx of cohos into the creek pools below the weir (Figure 11), and when water clarity conditions were extremely poor. The estimated escapement was felt to be conservative, but probable maximum and absolute minimum figures accompany the estimate. A total of 59 cohos were caught by sport fishermen below the weir. The estimated number of fish released upstream to spawn was 2,710 ±400. Stream surveys revealed that most fish moved at least 9.7 km (6 mi) upstream, but none were found at Caribou Lake or near the outlet. The actual obstruction was not observed on foot, but the area not surveyed contains waterfalls, which are probably impassable during the fall season's lower water levels. Sockeye salmon are able to reach the lake in June and July when water flow and levels are considerably higher.

Fluctuations in daily high tide levels, shown graphically in Figure 11, were correlated to daily salmon escapement rates. Increasing and peak high tides from August through September were accompanied by an influx of migrating cohos. Size data on Ages 1.1 and 2.1 cohos were grouped according to these peak tides (one period = trough-peak-trough) for two-way ANOVA. Mean lengths and weights by age-class and time period are shown in Tables 8 and 9. Weight was considered the more meaningful

Whitmore D.C. et al. Coho Enhancement on the Kenai Peninsula. 1979 Alaska Dept of Fish and Game, FRED Division

ANADROMOUS FISH STUDIES

AFS 45-1

Completion Report

Coho Enhancement on the Kenai Peninsula

by

David C. Whitmore
Nick C. Dudiak
J. Ward Testa

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FRED DIVISION

1979