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Region SOUTH CENTRAL USGS Quad(s) SELDOVIA D-3

Anadromous Waters Catalog Number of Waterway 221-14-10645-2101

Name of Waterway Nikola, Creek  USGS Name  Local Name  
 Addition  Deletion  Correction  Backup Information

ALASKA DEPT. OF FISH & GAME  
OCT 29 2009

For Office Use

Nomination # <u>09-1545</u>	_____	_____
Revision Year: <u>2010</u>	Fisheries Scientist	Date _____
Revision to: Atlas _____ Catalog _____	Habitat Operations Manager	Date _____
Both _____	<i>[Signature]</i>	<u>30 OCT 09</u>
Revision Code: <u>F-1</u>	AWC Project Biologist	Date _____
	Cartographer	Date _____

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
<u>Coho Salmon</u>	<u>1985-86</u>			<u>X</u>	<input checked="" type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>
					<input type="checkbox"/>

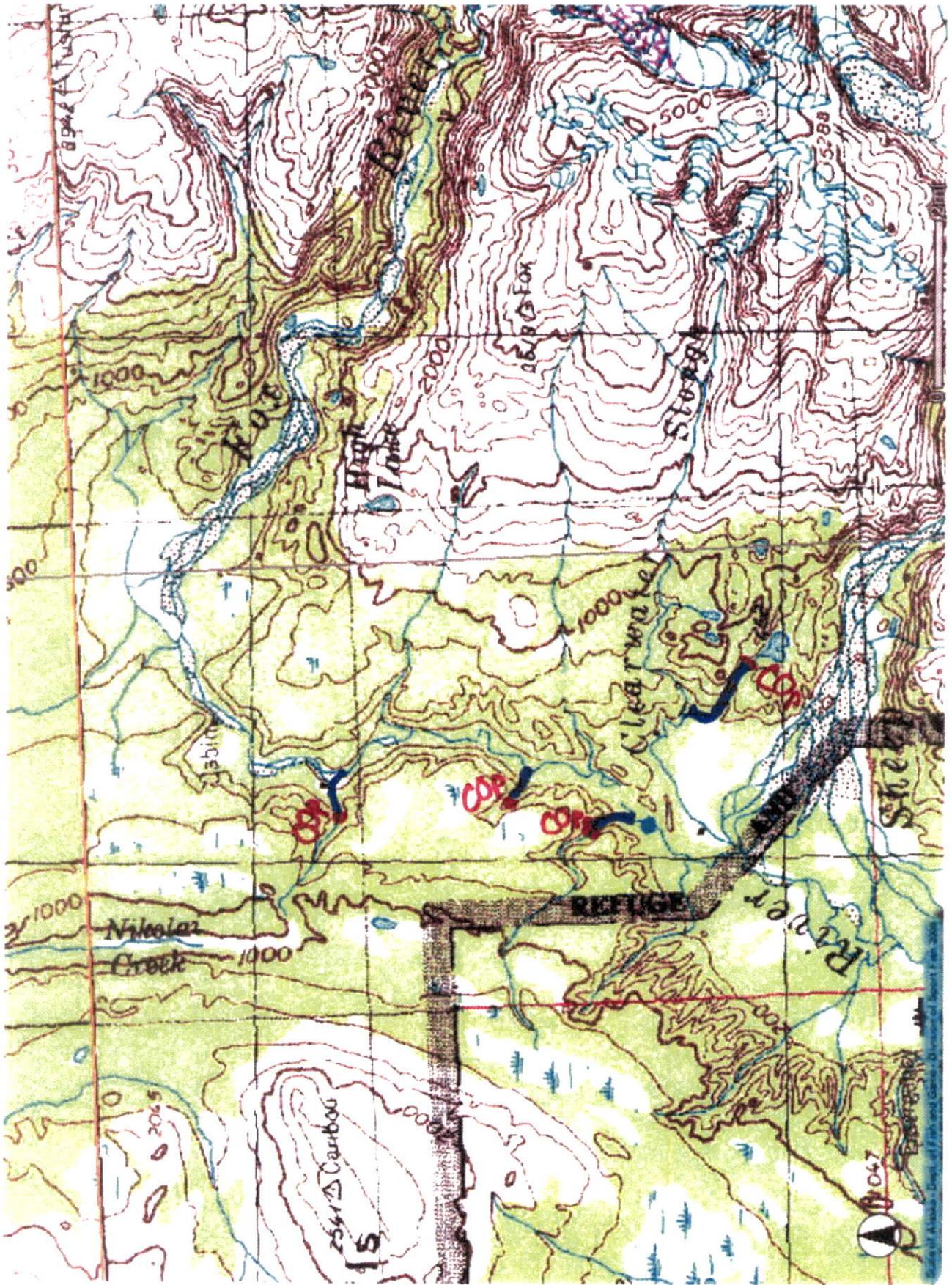
**IMPORTANT:** Provide all supporting documentation that this water body is important for the spawning, rearing or migration of anadromous fish, including: number of fish and life stages observed; sampling methods, sampling duration and area sampled; copies of field notes; etc. Attach a copy of a map 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:  
Coho salmon present documented in USFWS Rpt  
Subsequent finery resources in Fox River Unkashed AK  
1985-1986

Name of Observer (please print): \_\_\_\_\_  
 Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 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: \_\_\_\_\_ Date: \_\_\_\_\_ Revision \_\_\_\_\_



Due to the consistent clarity of Helicopter Creek, repeat counts of spawning adults were possible in 1986, and using the "Factor 5" method, a spawning population of 325 chum salmon was estimated (Table 3).

Two age groups of adult chum salmon were identified in the Fox River watershed (Table 4). Fish from age group 0.3 were more common and slightly larger than age 0.4 fish. In 1985, age 0.3 fish averaged 571 mm and 2,822 g compared to 558 mm and 2,600 g for age 0.4 fish.

Like juvenile pink salmon, no outmigrating juvenile chum salmon were captured in Clearwater Slough during late May in 1986.

#### *Chinook Salmon*

Only six adult chinook salmon were encountered in the Fox River system. All fish were observed spawning in Clearwater Slough and Helicopter Creek during mid-August in 1985. None of these fish were captured, therefore no biological data were collected. No juvenile chinook salmon were collected during the study.

#### *Coho Salmon*

Coho salmon were the most abundant and widely distributed salmon species, occurring in every major clear water tributary (Table 1). Coho salmon were found upstream as far as the headwaters of the Fox River above Waterfall Creek, and were the only salmon species observed in Windy Lake. Coho salmon arrived at Clearwater Slough in late August, 1985, and in early August, 1986 (Figure 4). Fresh fish (bright silver coloration) were encountered until mid-October, and individuals were still alive at freeze-up in November of both years. Spawning activity was observed from early September through November. Fish moved upstream through November, indicating that spawning could have been occurring even later.

Fish tagged with radio transmitters spawned in three tributaries and in the mainstem Fox River. Two of the six coho salmon radio tagged in 1985 spawned in Windy Creek, two spawned in the mainstem Fox River, and two spawned in Helicopter Creek. In 1986, four radio-tagged coho salmon spawned in Clay Creek, three spawned in the mainstem Fox River, and 13 spawned in either Clearwater Slough or Helicopter Creek. Spawning coho salmon were observed in other tributaries as well, but Clearwater Slough (including Helicopter Creek), Clay, and Windy creeks were the most important spawning areas.

The estimated spawning population of coho salmon in Clearwater Slough was almost twice that observed in Clay Creek during 1985 and almost four times that observed in Clay Creek during 1986 (Table 3). Escapement estimates in Clearwater Slough during 1985 and 1986 were 2,007 and 2,836 fish, respectively. The spawning escapement estimated for Clay Creek was 1,173 fish in 1985 and 718 fish in 1986.

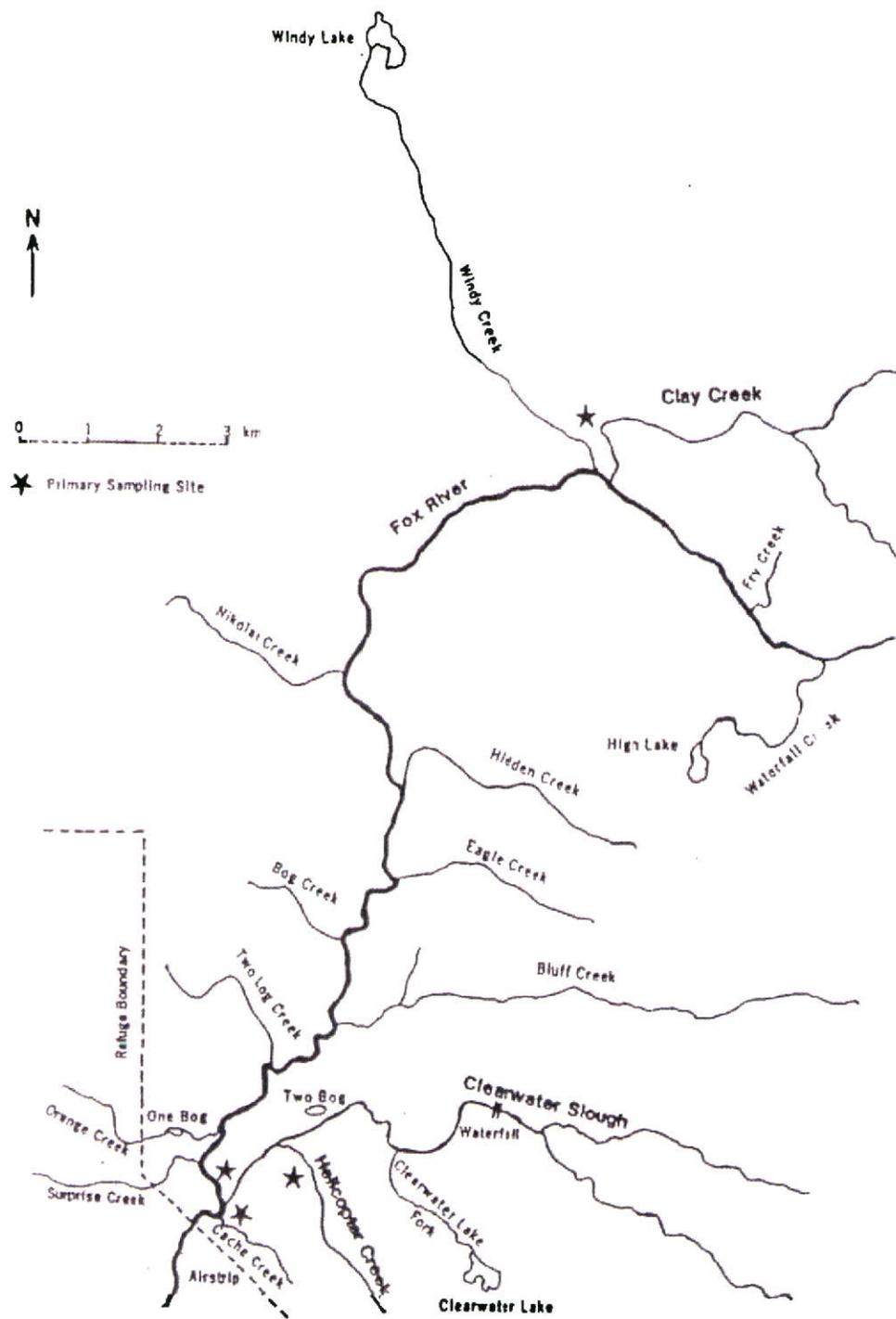


FIGURE 3.—Sampling locations in the Fox River watershed, Alaska, 1985-1986.

# **SURVEY OF THE FISHERY RESOURCES IN THE FOX RIVER WATERSHED, ALASKA, 1985-1986**



July 1992

Region 7

U.S. Fish and Wildlife Service • Department of the Interior