State of Alaska
Department of Fish and Game
Nomination for Waters
Important to Anadromous Fish

AWC Volume SE SC SW W AR IN USGS Quad TYONEK A-4

Anadromous Water Catalog Number of Waterway 247-20-10002-2016

Name of Waterway TRIB. TO THREE MILE CREEK SECTION 5 USGS name ____ Local name ____

Addition X Deletion ____ Correction ____ Backup Information ____

For Office Use

Nomination #	94 002	Regional Supervisor	1/7/94 Date
Revision Year:	-94	Ed Wain	11/18/93
Revision to: Atlas ____ Catalog ____ Both X		L. Irons	1/12/94
Revision Code:	A-2	Drafted	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Migration	Anadromous
SOCKEYE	8/9-10/92	S			✓

Provide any clarifying information, including number of fish observed, location of fish survey data, etc. Attach a copy of the fish survey data, if available. Attach a copy of a map showing location of mouth and upper points of each species, specific stream reaches identified for spawning or rearing, locations of barriers, such as falls.

Comments:

A&D STREAM PER OBSERVATIONS ON ATTACHED REPORT.

ALASKA DEPT. OF FISH & GAME

FEB 02 1993

REGION II HABITAT AND RESTORATION DIVISION

Name of Observer (please print) RICHARD P. FEIA

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Address: P.O. BOX 103702
Anch. AK 99510

Signature of Area Biologist: David O'Malson

Rev. 12/91

ALASKA DEPT. OF
FISH & GAME
NOV 3 1992
REGION II
HABITAT DIVISION

1992 SALMON HABITAT SURVEY OF THREE MILE CREEK

RICHARD P. FEIA

Little is known about the Sockeye salmon run in Three Mile Creek, located 6 miles south of the Beluga River on the west side of Cook Inlet.

In the summer of 1992, an effort was made to document spawning habitat and enumeration of both Sockeye and Coho salmon. In addition, all salmon juveniles (fry and Parr) captured, were identified and noted on the accompanying maps.

All fish counts and surveys were conducted by stream-walking the creek, up to a point that blockages, in this case, beaver dams, appeared likely to halt the up stream migration of the returning adults. Salmon juveniles identified were randomly captured, using a modified dip-net.

Results and the corresponding maps are broken down into 8 naturally defined segments. All lakes of importance are identified by name or letters.

Results: Habitat Survey

1. The length of lower Three Mile Creek, between the Beluga road (culverts) and the lake outlet, is approximately 2-1/2 miles. It is easily walked, at normal or low water, and is clear, though off-colored, with plenty of potential spawning gravel.

   Coho fry, the only species identified, were numerous and uniformly distributed throughout this segment.

   Very little, if any, Sockeye spawned in this section of the system, although several spawning pairs each of Coho and Pink were observed.

2. This small, brushy creek and its lake, (U), has low water flow and large amounts of rust-colored sediment.

   No salmon of any species was observed, although in 1991, 2 coho were seen at the pipeline crossing, because of the heavy rain.

   This creek enters lower Three Mile Creek, just above the culvert, at the upper limits of the tidal zone.

   Salmon juveniles identified (confluence to 50 yards upstream) included mostly Coho, along with some Chinook and Chum fry.

3. This 3-lake segment includes the main lake, Tukallah, the slough and the connecting Lake (L), as well as Lake (T).

The shore of Tukallah Lake was home for Coho as well as a few Sockeye fry. The open waters of the lake were never sampled, hence the lack of Sockeye captured.

The slough and Lake (L) both contained Coho and some Sockeye, as well.

Lake (T) showed no salmon activity, although, as in the other lakes of this segment, it contained a good population of Stickleback.

There appears to be some spawning habitat in Tukallah Lake, and 18 Sockeyes were seen actively spawning (see map).

The northern third of the lake, as well as the slough and Lake (L), appears unsuitable for spawning, although some gravel exists at the slough outlet, and some Coho spawning seemed to be taking place.

4. This section, the start of upper Three Mile Creek, consisted of good pea gravel, plus some small rock. The gravel above the lakes is significantly finer than that of lower Three Mile Creek.

Fry consisted of mostly all Coho with some Sockeye present, along with one Chinook smolt.

This was the beginning of the Sockeye spawning grounds.

5. This small grass-lined drainage, fed by Lake (C), contained fine gravel up to 100 feet above its confluence with Three mile Creek.

A few adult Sockeye were seen but no juveniles were observed.

6. Upper Three Mile Creek continues, to the forks, with plenty of good gravel, along with good numbers of Sockeye spawners, including 1 male Pink.

Other than several Sockeye fry captured in a deep slough, Coho fry, as in the other segments, predominated.

7. The grass-lined north fork of upper Three Mile Creek contains pea gravel up to the beaver dam and contributes far less water than the main (south) branch.

A few spawning Sockeye were observed, up to a third of the way to the dam.

Coho fry were the only species identified.

8. This last segment consists of the main (south) fork of the creek from the forks to the other beaver dam.

The majority of Sockeye spawning took place here.

No juvenile sampling was done, but Coho fry were seen just above the dam.

One adult female Chinook, approximately 25 pounds, was located 400 yards below the dam.

Results: Salmon Enumeration

Sockeye counts were done on frequent intervals in order to monitor their progress.

Sockeye first appeared in significant numbers on July 13th, rapidly moving up to the lake.

There was a large push of fish into the spawning grounds on August 2nd with the official Sockeye count taken on August 9th and 10th. There was a follow-up stream walk on August 13th, showing much spawning activity and, by August 20th, all but approximately 120 fish (mostly spawn-outs), were dead.

Official counts by segments: 1-2 = 9 Sockeye; 3 = 18 Sockeye; 4 = 60 Sockeye; 5 = 5 Sockeye; 6 = 553 Sockeye; 7 = 30 Sockeye; 8 = 1,145 Sockeye. Total Sockeye: all segments plus 30 spawn-outs = 1,850.

Coho salmon first appeared, in numbers, on approximately August 10th, although individuals were seen as early as July 25th. By August 17th, 100+ Coho were in the big holding pool, 200 yards downstream from the lake outlet.

The Coho stockpiled until the 26th, when approximately 800-1,000 fish were present. At this time, some of the fish started moving out of the hole, into the lake until, by September 9th, only 30 Coho remained.

As of September 19th, most all Coho remained in the lake environment, making little progress towards their suspected spawning area above the lake.

Preliminary counts (August 26th) gave an estimated 1,200+ Coho present in the system with only 27 fish counted on September 12th between the lake outlet and the road.

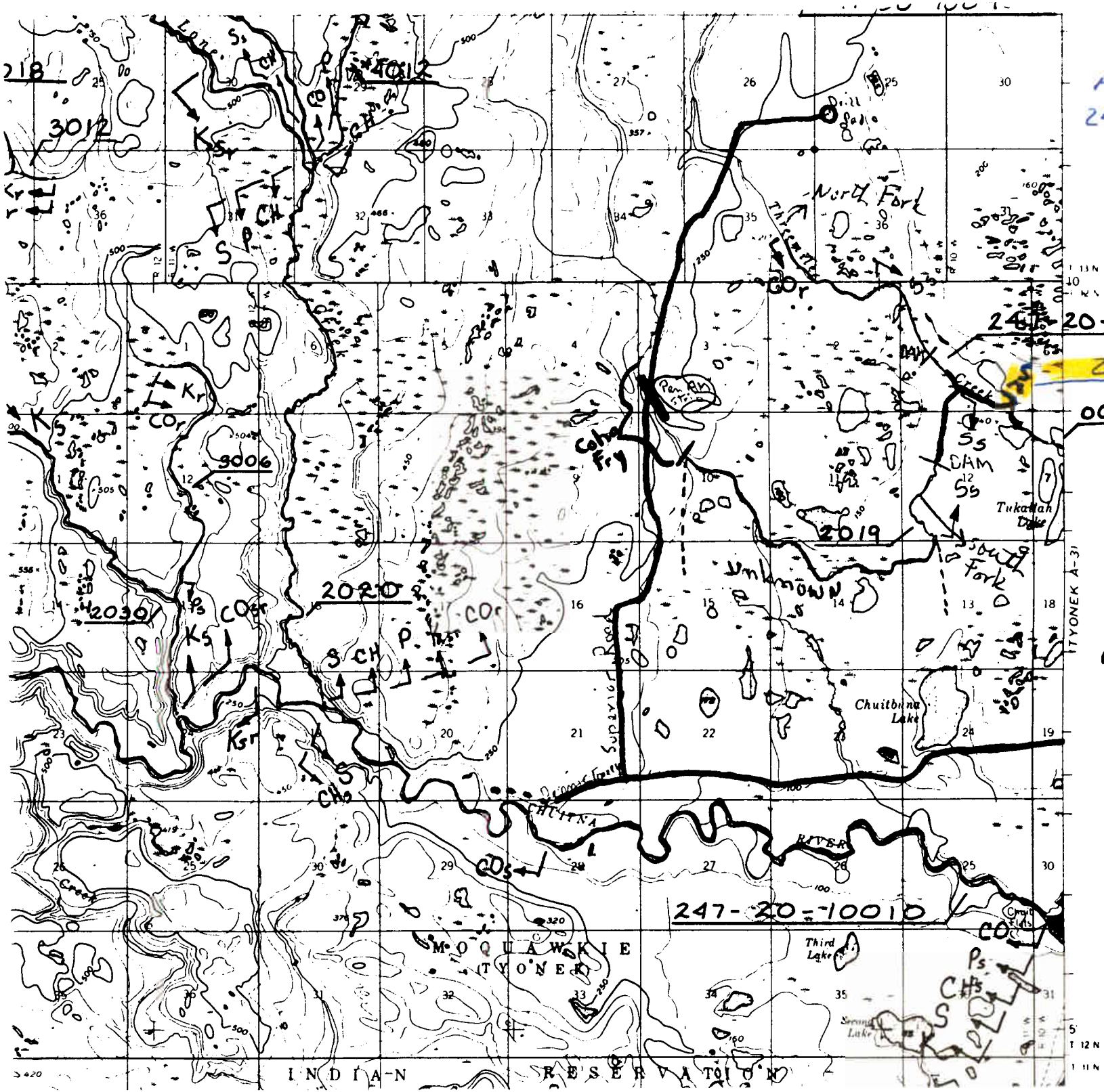
Pink salmon, numbering up to 30 fish above the culvert, was the only other species present. Possible habitat, below the culvert, was not fully investigated, but seemed unlikely to be able to hold many spawning fish.

Recommendations:

If the dam on the main (south) fork of upper Three Mile Creek was removed, it would seem likely that both Sockeye and Coho would benefit from the additional spawning habitat. A spot check of the creek above the dam showed gravel 1/2 mile upstream and suitable gravel to 1/2 mile below the superior road (see map). Further work is needed to determine habitat and blockages between these 2 points.

Adult Coho have, in the past, been observed from the superior road and good numbers of Coho fry were seen in the area this summer.

This basic survey was conducted in order to compile some data on the Three Mile Creek system. Information in this survey might be of use in planning a detailed analysis in order to learn more about the potential of this salmon-producing stream.



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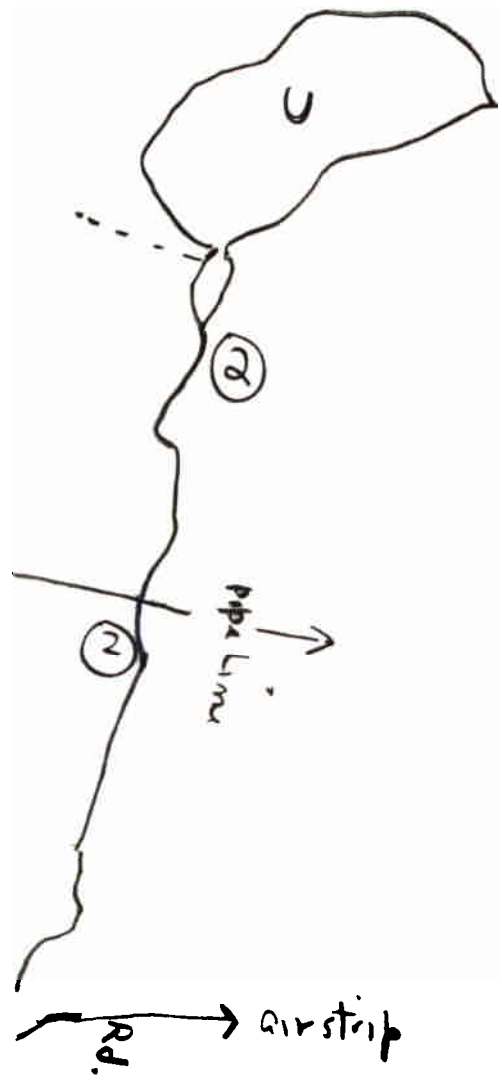
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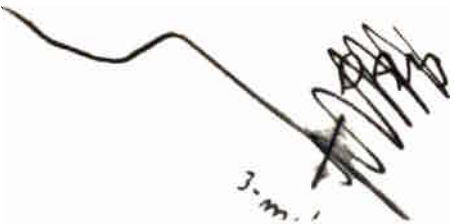
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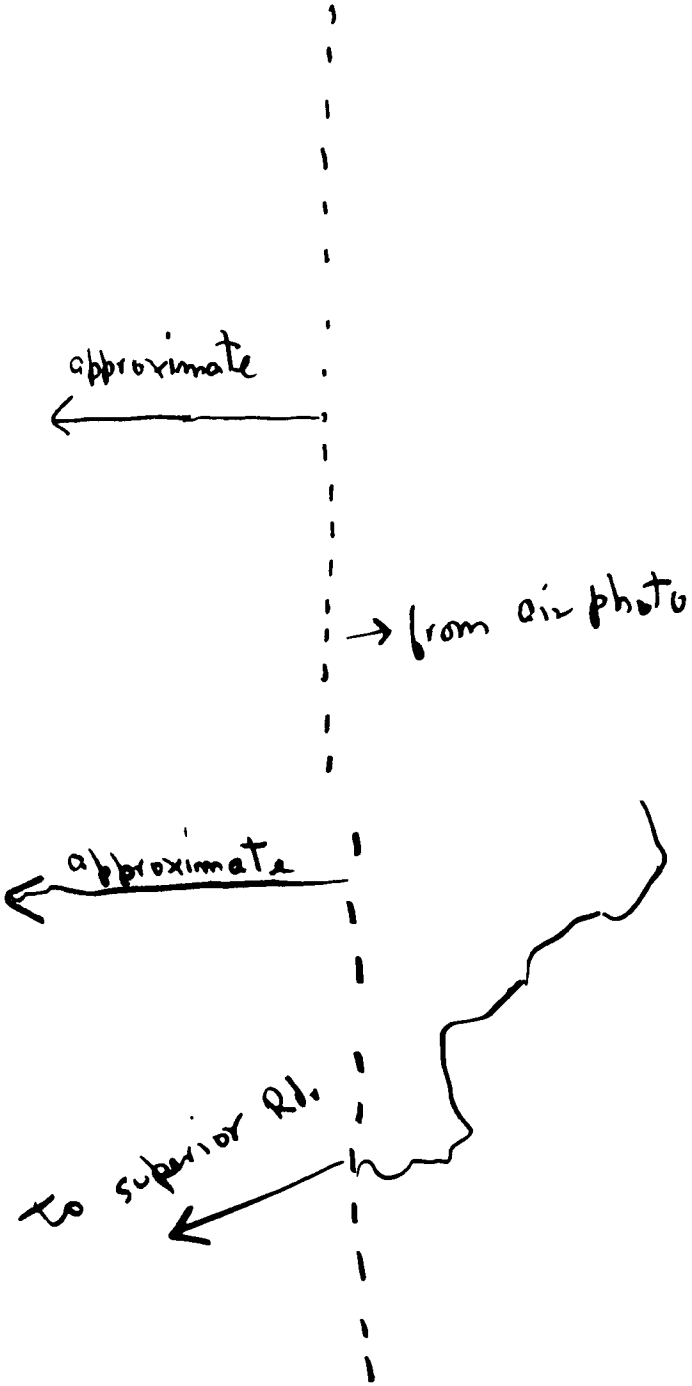
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