State of Alaska
Department of Fish and Game
Sportfish Division

Nomination Form
Fish Distribution Database

ALASKA DEPT. OF FISH & GAME

NOV 25 2003

Region: SOUTHCENTRAL

USGS Quad: MCCARTHY B-5

Fish Distribution Database Number of Waterway:

Name of Waterway: McCarthy Creek

☒ USGS Name ☐ Local Name

☒ Addition ☐ Deletion ☐ Correction ☐ Backup Information

For Office Use

Nomination #	04 017	Fisheries Scientist	Date 9/21/04
Revision Year:	2005	FDD Project Biologist	Date 20 May 04
Revision to:	Atlas ____ Catalog ____ Both ____	Drafted	Date
Revision Code:	F-2		

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Dolly Varden	10/9/2003	1			☒
Dolly Varden	October 8-9, 2003		150		☐
					☐
					☐
					☐

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: Please see attached report including photos.

We found one 432 mm ripe male Dolly Varden near the confluence of Nikolai Creek and McCarthy Creek that likely was anadromous. We ceased sampling with an electrofisher at this site in accordance with our ADFG Fish Resource permit once we found a spawning salmonid. We might have found additional anadromous individuals if we had continued sampling however we did not want to substantially impact the spawning population.

Name of Observer (please print): Eric Veach, Fishery Biologist, National Park Service

Signature: Eric L. Veach

Date: 11/20/2003

Address: P.O. Box 439
Copper Center, AK 99573

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 Fish Distribution Database.

Signature of Area Biologist: _____

Name of Area Biologist (please print):

Revision 04/03

STATE OF ALASKA

DEPARTMENT OF FISH AND GAME

FRANK H. MURKOWSKI, GOVERNOR

Division of Sport Fish
333 Raspberry Road
Anchorage, AK 99518-1599
PHONE: (907) 267-2337
FAX: (907) 267-2464

December 2, 2003

Dear Colleague:

This letter is to acknowledge the receipt of the nomination that was sent to the Alaska Department of Fish & Game. Included is a listing of the nomination that you submitted. If you have any questions about the nomination you sent, please refer to the nomination number in your correspondence.

The ADF&G is currently working to prepare maps and associated documents for regulatory adoption of some 1,300 maps that were updated as a result of nominations received since the last update in 1998 or changes from the old style blue-line maps to full color maps that will soon be viewable on-line. Regulatory adoption is expected to take place by June of 2004. As a result, the nominations you submitted will not be included in the 2004 regulatory update. Nominations received since July 2003 will be included in the 2005 regulatory adoption cycle.

Due to regulatory changes, which took effect April 15, 2003, ADF&G's Anadromous Waters Catalog (AWC) program has been renamed the Fish Distribution Database program. The ADF&G will still call for nominations and map anadromous fish distribution. Working with the Department of Natural Resources, ADF&G will produce fish distribution maps while ADNR is now responsible of regulatory adoption of anadromous waters.

I appreciate the hard work it took to collect the data you have submitted. My duties allow me to sometimes help out with fish survey work so I have some idea of the hard work involved in collecting fish distribution data and I want to assure you the nominations you submitted will be processed as soon as possible. Without your help, the Atlas and Catalog would not be as comprehensive as it is.

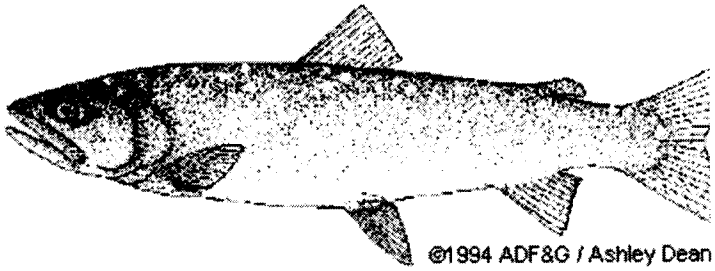
I have made a preliminary review of the nomination you submitted and have found there is not adequate information to warrant the inclusion of McCarthy Creek in Anadromous Waters Atlas and Catalog at this time. While the department is aware of anadromous populations of anadromous Dolly Varden in Alaskan waterbodies, the presence of anadromous Dolly Varden in the McCarthy area has not been previously documented. The information provided (capture of a single adult and 100+ juveniles) with your nomination does not support your contention that the Dolly Varden found in McCarthy Creek are potentially anadromous. I urge you to submit supporting information or additional data if you want this nomination reconsidered in the future.

I want to thank you for the submission of the nomination and if you have any questions, please give me a call. I would appreciate it if you would email me when you receive this letter so I can add you to my contact listing.

J. Johnson
Alaska Department of Fish and Game
FDD Project Biologist

Dolly Varden

Dolly Varden (*Salvelinus malma Walbaum*) are locally abundant in all coastal waters of Alaska. Two basic forms of Dolly Varden occur in Alaska waters. The southern form ranges from lower Southeast Alaska to the tip of the Aleutian Chain, and the northern form is distributed on the north slope drainages of the Aleutian Range northward along Alaska's coast to the Canada border. Anadromous and freshwater resident varieties of both forms exist with lake, river, and dwarf populations being found among the freshwater residents. Little is known of the habits of Alaskan nonmigratory Dolly Varden.



General description: Young Dolly Varden have about eight to ten wide, dark parr marks or oval blotches which contrast mottled olive-brown color of their body. The sea-run fish are silvery with an olive-green to brown color on the dorsal surfa numerous red to orange spots on their sides. The mature males become brilliant red on the lower body surface and the lo fins become reddish-black with white along the leading edges. Mature females are similar but are less brightly colored. M develop an extended lower jaw which hooks upward, fitting into a groove which is formed in the upper jaw. A hook also fo the females but is considerably less developed.

Dolly Varden belong to a group of fish called char. The light spots on their sides distinguish them from most trout and sal which are usually black spotted or speckled.

Life history: Dolly Varden spawn in streams, usually during the fall from mid-August to November. The female, dependir her size, may deposit from 600 to 6,000 eggs (2,500 to 10,000 in the northern form) in depressions, or redds, which she constructs in the streambed gravel by digging with her tail fin. The male usually takes no part in these nest building activi spends most of his time fighting and chasing other males. When the female is ready to deposit her eggs, the male moves side and spawning begins. Sperm and eggs are released simultaneously into the redd.

The eggs develop slowly in the cold water temperatures usually present during the incubation period. Hatching of the egg occur in March, four to five months after fertilization. After hatching, the young Dolly Varden obtain food from their yolk sa usually do not emerge from the gravel until this food source is used. Emergence usually occurs in April or May for the so form and in June for the northern form.

The young Dolly Varden rear in streams before beginning their first migration to sea. During this rearing period, their grov slow, a fact which may be attributed to their somewhat inactive habits. Young Dolly Varden often remain on the bottom, h from view under stones and logs, or in undercut areas along the stream bank, and appear to select most of their food fro stream bottom.

Most Dolly Varden migrate to sea in their third or fourth year, but some wait as long as their sixth year. At this time, they about 5 inches long and are called smolt. This migration usually occurs in May or June, although significant but smaller n have been recorded migrating to sea in September and October. Once at sea, they begin a fascinating pattern of migrati

After their first seaward migration, Dolly Varden usually spend the rest of their lives wintering in and migrating to and fron water. Southern form Dolly Varden overwinter in lakes, while most northern Dolly Varden overwinter in rivers. Those hatc reared in a lake system carry on annual feeding migrations to sea, returning to a lake or river each year for the winter. Hc southern Dolly Varden originating from nonlake systems must seek a lake in which to winter. Recent research indicates t find lakes by random searching, migrating from one stream system to another until they find one with a lake. Once a lake found, these fish may also conduct annual seaward migration in the spring, sometimes entering other stream systems in search for food.

At maturity, Dolly Varden return to spawn in the stream from which they originated. The fish possesses the ability to find t "home" stream without randomly searching, as was the case in their original search for a wintering area. Those of the sou form that survive the rigors of spawning return to the lake shortly thereafter, while northern form Dolly Varden usually ove in the river system in which they have spawned.

Most southern form Dolly Varden reach maturity at age 5 or 6. At this age they may be 12-16 inches long and may weigh 1/2 to 1 pound. Northern Dolly Varden reach maturity at age 5 to 9 after having spent three or four summers at sea, and 16 to 24 inches long. Mortality after spawning varies depending on the sex and age of the fish. Males suffer a much high mortality rate after spawning, partly due to fighting and the subsequent damage inflicted on each other. It is doubtful that more than 50 percent of the Dolly Varden live to spawn a second time. A small number may live to spawn more than twic southern Dolly Varden appear to live longer than 8 years. Northern Dolly Varden may live as long as 16 years, but indivic over age 10 are uncommon. Maximum size for southern Dolly Varden is between 15 and 22 inches and up to 4 pounds; however, occasional 9- to 12-pound lunkers are reported, especially in northern populations.

Sport fishing: Dolly Varden are one of Alaska's most important and sought-after sport fish. The fish is unique, as it is the member of the family Salmonidae, excluding salmon, that has readily adapted to the numerous small- to medium-size no streams that enter our saltwater areas. Its importance and popularity can only increase as our population increases and f restrictions are placed on heavily used salmon streams. To fish successfully for sea-run Dolly Varden in Alaska, one sho knowledge of their migratory habits. Since the Dolly Varden migrate to sea from lakes in the spring, a lake outlet stream, mouth, or associated beach should be good from April through June. Good Dolly Varden fishing can be found in salt wate May, June, and July. As the mature fish return to their home stream to spawn and feed in August and September, most c streams in Southeast Alaska and up through the Aleutian Chain provide good fishing for Dolly Varden. Try fishing near sp salmon, in deep holes, and at the creek mouth on an incoming tide. Lake fishing for sea-run Dolly Varden can be good fr August through November. The fish begin entering lakes in late August and are in prime condition after their spring and s growing season. Ice fishing in lakes during the winter can also provide excellent sport for those willing to brave the eleme

Like its close relative, the Eastern brook trout, the Dolly Varden is excellent for eating. Catch one which has been has be sea for awhile, and you have a fish unsurpassed in quality. The flesh is pink, firm, and full of flavor. For variety, try smoki of your catch, or try cooking it wrapped in foil with a little butter, salt, pepper, and lemon juice in the hot coals of a beach

Dolly Varden will usually strike readily at almost anything the angler offers. During the spring, try small spinning lures in tl outlet streams and in salt water. Streamer flies, resembling small fish, can produce surprising results along the saltwater beaches during the spring and summer months. Coastal streams in August and September can produce excellent fishing those using spinning lures or a single salmon egg bounced along the bottom. Occasionally flies, both wet and dry, can be successfully used in both streams and lakes. A sea-run Dolly Varden caught on light spinning tackle or fly rod will produc not easily forgotten.

Text: Dennis Hubartt
Illustration: Ashley Dean
Revised and reprinted 1994

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United States Department of the Interior

NATIONAL PARK SERVICE

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N1619

ADF&G Sport Fish Division Regional Office
ATTN: J Johnson
333 Raspberry Road
Anchorage, AK 99518

Dear Mr. Johnson,

I would like to submit the enclosed nomination form and ask that you consider adding McCarthy Creek to your Fish Distribution Database as a stream that provides habitat for anadromous Dolly Varden. I have enclosed a brief report of our sampling efforts in McCarthy Creek, photos of some of the sampled fish and the stream, and a spreadsheet containing the data we collected. Please feel free to contact me if you have any questions.

Sincerely,

Eric Veach
Fisheries Biologist

RECEIVED
NOV 24 2003
STATE OF ALASKA
FISH & GAME

Survey of Fish and Fish Habitat
In
McCarthy Creek

Wrangell-St. Elias National Park/Preserve
October 2003

Eric R. Veach
Fisheries Biologist

Abstract

We surveyed four sites in McCarthy Creek, Chitina River drainage, within Wrangell-St. Elias National Park/Preserve, Alaska, using an electrofisher, gill net, and minnow traps in October 2003, to gather additional fish presence information. We documented the presence of Dolly Varden (*Salvelinus malma*) and suggest that there are individuals exhibiting a resident life history and potentially an anadromous life history. We suggest that McCarthy creek provides both spawning and rearing habitat for Dolly Varden.

Introduction

In October of 2003, the Park Superintendent of Wrangell-St. Elias National Park/Preserve requested that I collect additional information regarding the presence of fish in McCarthy Creek in the Chitina River drainage. While short duration, incidental sampling is not adequate to prove the absence of any fish species, this approach is useful to document the presence of fish species. Dolly Varden were documented previously as part of a freshwater fish inventory project conducted by the Park in 2001. In 2001, only the area near the mouth of McCarthy Creek was sampled.

Study Area

McCarthy Creek originates from glaciers along the south slope of the Wrangell Mountains. Below it's origin along the base of the moraine of the McCarthy Creek glacier, the braided stream flows southward over a 300-600 foot wide flood plain and has an average gradient of 2.3 percent. Between stream miles 12.3 and 5, the stream flows through a series of bedrock canyons before turning west over an alluvial floodplain. Stream gradient, between stream miles 5 and the mouth, averages 1.9 percent. Peak flows range 2080 to 4500 cubic feet per second with average water velocities ranging from 7 to over 12 feet per second. Ridges enclosing the McCarthy creek watershed are from 6000 to 9000 feet in elevation. The mouth of McCarthy Creek is approximately 1360 feet in elevation. Glaciers and perennial snowfields presently cover about 4 percent of the McCarthy creek watershed (Jones and Glass, 1993).

The four sites examined during this effort are displayed in Figure 1. The 2001 sample site was located in McCarthy creek near the stream mouth. GPS coordinates are displayed for each site in Table 1. At the Green Butte site both the main channel of McCarthy Creek and beaver ponds adjacent to the main channel were sampled. In Nikolai creek approximately the first 300 meters upstream of the stream mouth were sampled. At the Nikolai-McCarthy Creek confluence site, waters in the main channel of McCarthy Creek, both upstream and downstream of the confluence with Nikolai Creek, were sampled.

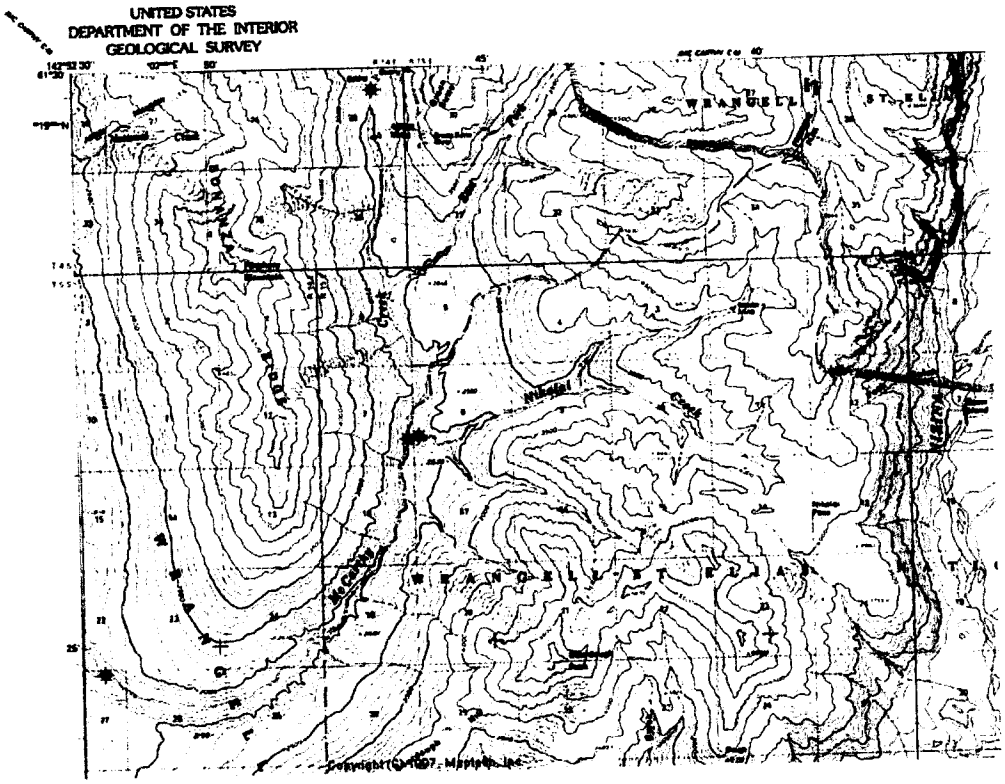

Figure 1. Map of 2003 sample sites in McCarthy Creek.

STREAM	SITE	GPS	Sample Year
McCarthy Creek	Green Butte	N 61.496 W142.785	2003
McCarthy Creek	Nikolai Confluence	N 61.442 W 142.776	2003
Nikolai Creek	Reach 1	N 61.444 W 142.773	2003
McCarthy Creek	Upstream NPS Boundary	N 61.414 W 142.874	2003
McCarthy Creek	Near mouth	N 61.431 W 142.924	2001

Table 1. Sample site locations.

METHODS

At all sites a Smith-Root backpack electrofisher was used to sample fish. At the Green Butte site 12 Gee minnow traps baited with salmon roe soaked in Betadyne were set overnight and checked the following morning. At the Nikolai-McCarthy confluence site a ½ inch mesh gill net 50 feet by 6 feet was utilized but no fish were captured using this technique. Once the adult, spawning Dolly Varden was captured using the electrofisher, sampling with the electrofisher ceased at that site in accordance with our collection permit issued by the Alaska Department of Fish and Game. Captured fish were identified to species by a fisheries biologist and fork lengths were measured to the nearest millimeter. In 2001 the fish were identified to species by a senior fisheries

technician. The presence of potential salmonid spawning gravels was given a cursory visual assessment by a fisheries biologist at each site sampled in 2003. Large woody debris was also visually examined in 2003. Length frequency data was pooled for all sites within the McCarthy Creek watershed and analyzed using 10 millimeter increments.

RESULTS

Dolly Varden, *Salvelinus malma*, were captured at all sample sites in both 2003 and 2001. Captured fish ranged from 30 to 432 mm in length with a mean of 95.8 mm (SE=51.3 mm). Length ranges for each site are displayed in Table 2. Length frequency analysis suggests that sampled fish lengths were well distributed around 55 mm and 115 mm (Figure 2). One large (432 mm) male was dripping milt when captured. All sites sampled in 2003 appeared to have some suitable salmonid spawning areas. Large woody debris was present within the active channel (Figure 3).

DISCUSSION

Dolly Varden appear to be present throughout McCarthy Creek and the lower portion of Nikolai Creek. Based upon aerial observations by the investigator, the East Fork of McCarthy Creek appears to provide fish habitat similar to that in Nikolai Creek.

Length frequency data suggests that there may be 3 age classes of Dolly Varden within McCarthy Creek. Dolly Varden less than 90 mm in length appear to be age 0+ and Dolly Varden over 90 mm but less than 160 mm in length appear to be age 1+ fish (Figure 2). 8 fish were sampled that were over 160 mm in length, these fish are likely 2+ or older fish. The numerous small (<50 mm) individuals that were sampled suggests that spawning is occurring within McCarthy Creek.

One large (432 mm) male fish appeared to be in spawning condition when captured. This individual was potentially an anadromous specimen or at least an individual exhibiting a fluvial life history based upon his large size.

Fish habitat in McCarthy Creek is dominated by low gradient riffles and scour pools (Overton and others, 1997). Numerous off-channel habitats such as side channels and beaver ponds are present at low flows. The beaver ponds near Green Butte appear to provide important rearing habitat. Large woody debris appears to provide cover for fish during a range of flows.

SITE	Sample Size	Minimum length (mm)	Average Length (mm)	SE	Maximum Length(mm)
Green Butte	63	66	114.8	16.8	149
Nikolai Confluence	39	35	68.2	67.4	432
Reach 1	14	30	122.9	79.1	250
Upstream NPS Boundary	27	40	70.7	34.9	157
Near mouth	8	84	117	34.8	180

Table 2. Sample size and length data by sample site.

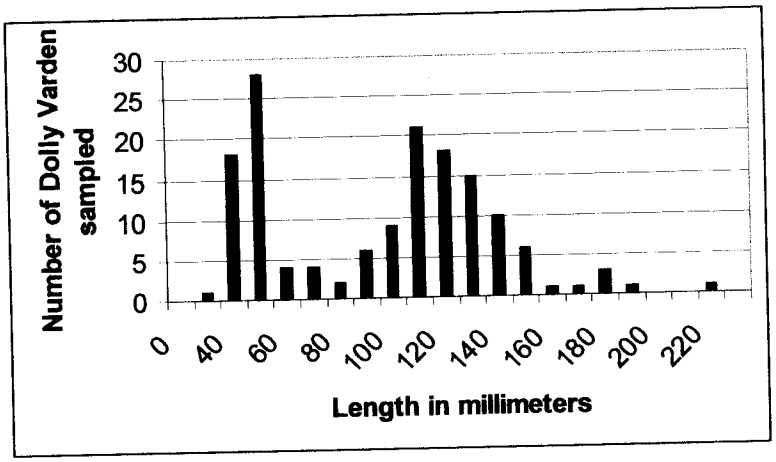

Figure 2. Length frequency of Dolly Varden in McCarthy Creek (all sites).

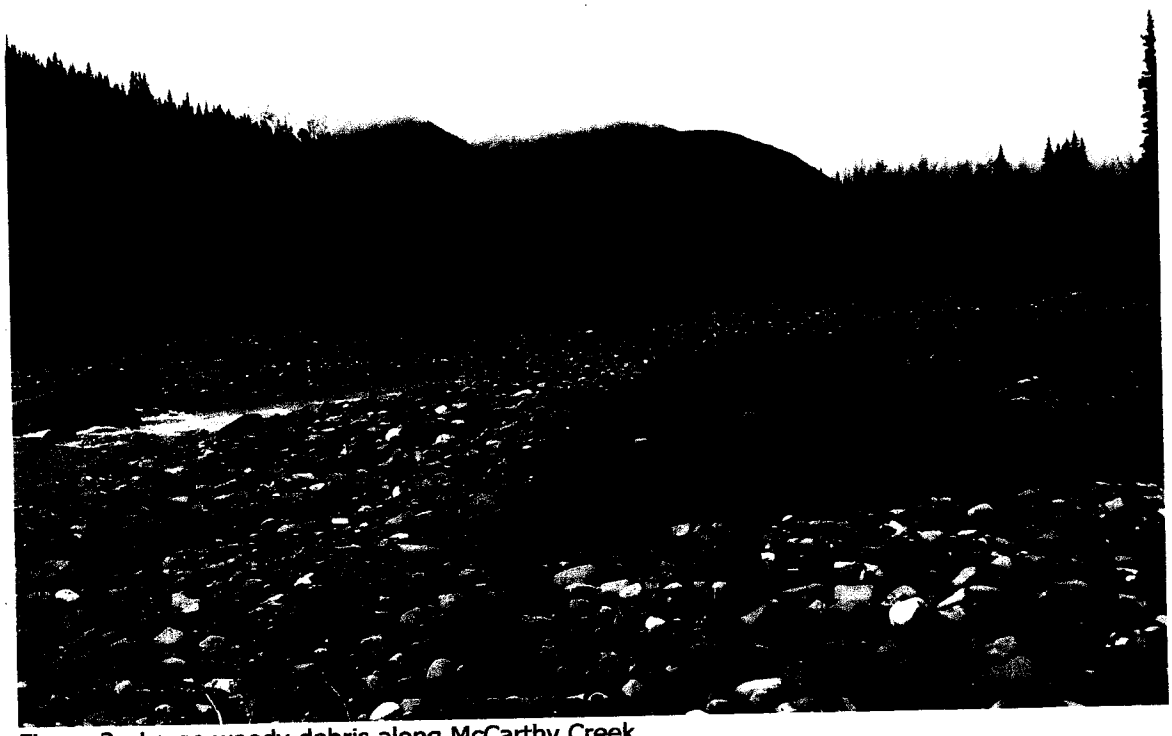

Figure 3. Large woody debris along McCarthy Creek.

CONCLUSIONS

A field review of McCarthy Creek in October 2003 found that a Dolly Varden, *Salvelinus malma*, population does exist in McCarthy Creek. One sampled individual is potentially an anadromous specimen. The condition of both the large male sampled and the presence of numerous small individuals suggests Dolly Varden spawn in McCarthy Creek. Fish habitat in McCarthy Creek is capable of supporting a viable spawning population of Dolly Varden.

ACKNOWLEDGEMENTS

Special thanks to Neil Hannan and Steven Rooker for their assistance during the October 2003 sampling trip.

LITERATURE CITED

Jones, S. H. and R.L. Glass. Hydrologic and Mass-Movement Hazards near McCarthy Wrangell-St. Elias National Park and Preserve, Alaska. U.S. Geological Survey Water-Resources Investigations Report 93-407B. Anchorage, Alaska. 1993.

Overton, C.K., S.P. Wollrab, B.C. Roberts, and M.A. Radko. R1/R4 (Northern/Intermountain Regions) Fish and Fish Habitat Standard Inventory Procedures Handbook. General Technical Report INT-GTR-346. USDA Forest Service. May 1997.

Appendix 1. Photos of fish sampled in McCarthy Creek, October 2003.

Photo 1. 432 mm male Dolly Varden sampled in McCarthy Creek near the mouth of Nikolai Creek.

Photo 2. Juvenile Dolly Varden sampled in McCarthy Creek near Green Butte.

McCarthy Creek Fish sampling data, Wrangell-St.Elias National Park/Preserve

DATE	STREAM	SITE	GPS	METHOD	SPECIES	LENGTH (mm)	NOTES
10/8/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Electrofisher	Dolly Varden	89	Photo
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	126	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	118	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	102	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	134	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	130	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	139	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	110	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	132	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	106	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	129	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	126	
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10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	130	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	94	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	114	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	126	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	125	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	129	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	120	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	105	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	132	
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10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	120	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	118	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	145	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	70	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	96	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	106	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966 W142.7855	Minnow Trap	Dolly Varden	96	
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10/9/2003	McCarthy Creek	Green Butte	N 61.4966	W142.7855	Minnow Trap	Dolly Varden	110	
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10/9/2003	McCarthy Creek	Green Butte	N 61.4966	W142.7855	Minnow Trap	Dolly Varden	66	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966	W142.7855	Minnow Trap	Dolly Varden	116	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966	W142.7855	Minnow Trap	Dolly Varden	84	
10/9/2003	McCarthy Creek	Green Butte	N 61.4966	W142.7855	Minnow Trap	Dolly Varden	67	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	432	Ripe Adult Male, Photos, Scales
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	95	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	135	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	150	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	42	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	49	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	36	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	110	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	130	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	110	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	84	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	80	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	35	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	78	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	40	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	45	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	38	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	42	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	90	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	45	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	42	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	50	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	50	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	40	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	40	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	44	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	44	
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	38	

10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	40
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	40
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	50
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	42
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	40
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	39
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	40
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	39
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	40
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	36
10/8/2003	McCarthy Creek	Nikolai Confluence	N 61.4428	W 142.77682	Electrofisher	Dolly Varden	41
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	220
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	190
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	170
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	150
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	250
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	180
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	180
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	140
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	45
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	30
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	31
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	50
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	42
10/8/2003	Nikolai Creek	Reach 1	N 61.44476	W 142.77306	Electrofisher	Dolly Varden	43
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	157
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	140
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	127
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	109
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	42
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	46
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	103
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	109
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	102
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	107
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	88
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	47
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	45
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	62
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	52
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	50
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	46
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	49
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	50
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	53
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	45

McCarthy Creek Fish sampling data, Wrangell-St.Elias National Park/Preserve

10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	49
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	56
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	52
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	40
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	40
10/9/2003	McCarthy Creek	Upsteam NPS Boundary	N 61.41479	W 142.87415	Electrofisher	Dolly Varden	44
8/18/2001	McCarthy Creek	Near mouth	N 61.431	W 142.924	Electrofisher	Dolly Varden	84
8/18/2001	McCarthy Creek	Near mouth	N 61.431	W 142.924	Electrofisher	Dolly Varden	145
8/18/2001	McCarthy Creek	Near mouth	N 61.431	W 142.924	Electrofisher	Dolly Varden	95
8/18/2001	McCarthy Creek	Near mouth	N 61.431	W 142.924	Electrofisher	Dolly Varden	95
8/18/2001	McCarthy Creek	Near mouth	N 61.431	W 142.924	Electrofisher	Dolly Varden	180
8/18/2001	McCarthy Creek	Near mouth	N 61.431	W 142.924	Electrofisher	Dolly Varden	145
8/18/2001	McCarthy Creek	Near mouth	N 61.431	W 142.924	Electrofisher	Dolly Varden	95
8/18/2001	McCarthy Creek	Near mouth	N 61.431	W 142.924	Electrofisher	Dolly Varden	97

JD Johnson

From: Tom Taube [tom_taube@fishgame.state.ak.us]
Sent: Tuesday, November 25, 2003 2:30 PM
To: j_johnson@fishgame.state.ak.us; 'Alfred L Decicco'; 'Steve W Albert'
Subject: RE: anadromous Dolly varden in McCarthy Creek

There are populations of Dolly Varden in the Klutina and Tonsina rivers that are believed to be anadromous. No work has been done to confirm this (ie. - microprobe analysis for strontium concentrations, or tagging studies), but based upon the size of the individuals in these populations it would appear that they may have benefited from some time at sea. There are also a fair number of large Dolly Varden that are caught (and most released as required by regulation) in the Chitina dipnet fishery. I'm not certain why there have not been nominations for the Klutina or Tonsina populations, I have been reluctant to do so, based upon the size criteria alone and the fact that I've only sampled a handful to date (but have seen pictures of many). I did see the electronic picture of the large adult DV capture by NPS (a ripe male), unfortunately, their FRP did not permit sacrificing the fish or for that matter any of the fish they captured. From the visual appearance and size, it looked similar to those fish I've seen from the Klutina and Tonsina river stocks. If the data NPS provided meets the criteria for anadromous stream classification, it should be included in the catalog. Is one large fish sufficient for the anadromous classification, or are other criteria necessary for inclusion in the catalog? - TT

- There is some political background behind this nomination, as I'm sure you are well aware... somewhat ironic that this request comes close to the holiday associated with the name of the family involved with this system.

-----Original Message-----
From: JD Johnson [mailto:j_johnson@fishgame.state.ak.us]
Sent: Tuesday, November 25, 2003 4:01 PM
To: Alfred L Decicco; Tom Taube; Steve W Albert
Subject: anadromous Dolly varden in McCarthy Creek

I received a nomination from a NPS employee nominating McCarthy Creek
Sampling found one adult DV and 100's of juveniles
Based on your experience, how possible, probable, likely is it that this adult DV is indeed anadromous?
The 1998 version of the Atlas indicates no DV cataloged within the quad
There was no supporting info to support calling one adult anadromous

J. Johnson
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FDD Project Biologist
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j_johnson@fishgame.state.ak.us

JD Johnson

From: Tom Taube [tom_taube@fishgame.state.ak.us]
Sent: Tuesday, November 25, 2003 3:31 PM
To: 'Fred DeCicco'; j_johnson@fishgame.state.ak.us; 'Steve W Albert'
Subject: RE: anadromous Dolly varden in McCarthy Creek

After reading Fred's e-mail, I thought of a few other items. ADF&G has not sampled this creek, the Kennicott River was sampled (I believe by Ken Roberson) and that is why it is listed in the AWC for coho salmon. From what I've been able to dig up, and the information is somewhat limited with the exception of salmon aerial surveys, most of the streams off the Chitina drainage appear to have dwarf populations of resident Dolly Varden (if the can sustain fish populations). This is one of the first reports of a large (435 mm) DV caught in the Chitina drainage. During sampling in 2001, NPS did capture a 465 mm DV in Long Lake creek, which is also in the Chitina drainage. Most of NPS sampling in Wrangell-St. Elias has occurred during July and early August, so the likelihood of catching spawning DV is low. I may allow some amount of sacrificing of future samples that NPS collects, just for beginning a baseline collection. I believe they have been collecting genetic samples, but I will check with them and see if they haven't, that they do in the future. - TT

-----Original Message-----
From: Fred DeCicco [mailto:fred_decicco@fishgame.state.ak.us]
Sent: Tuesday, November 25, 2003 4:35 PM
To: j_johnson@fishgame.state.ak.us; 'Tom Taube'; 'Steve W Albert'
Subject: RE: anadromous Dolly varden in McCarthy Creek

J.--I do not have much experience down in that area, but after looking at a map, I see no reason to believe that anadromous DV would NOT be in the drainage. Tom may have more insight into the situation. How large was the adult DV? If it was fairly large (over 14 or 15 inches) it is likely anadromous. If there are hundreds of juveniles, the area is at least being used as a rearing area, and there may also be supporting some spawning. Tom, I'll defer to you. Has anyone sampled this creek? What do you think?
Fred DeCicco
-----Original Message-----
From: JD Johnson [mailto:j_johnson@fishgame.state.ak.us]
Sent: Tuesday, November 25, 2003 3:01 PM
To: Alfred L Decicco; Tom Taube; Steve W Albert
Subject: anadromous Dolly varden in McCarthy Creek

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JD Johnson

From: Fred DeCicco [fred_decicco@fishgame.state.ak.us]
Sent: Tuesday, November 25, 2003 3:35 PM
To: j_johnson@fishgame.state.ak.us; 'Tom Taube'; 'Steve W Albert'
Subject: RE: anadromous Dolly varden in McCarthy Creek

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Fred DeCicco
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From: JD Johnson [mailto:j_johnson@fishgame.state.ak.us]
Sent: Tuesday, November 25, 2003 3:01 PM
To: Alfred L Decicco; Tom Taube; Steve W Albert
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