



State of Alaska
Department of Fish and Game
Habitat and Restoration Division

Nomination for Waters
Important to Anadromous Fish

Region SOUTHEAST

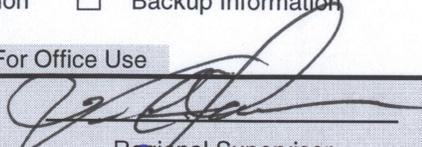
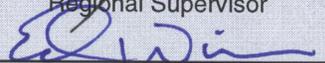
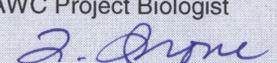
USGS Quad Juneau B-2

Anadromous Water Catalog Number of Waterway 111-50-10420

Name of Waterway Auke Creek / Auke Lake USGS Name Local Name

Addition Deletion Correction Backup Information

For Office Use

Nomination #	<u>01 555</u>		<u>3/13/02</u>
Revision Year:	<u>2001</u>	Regional Supervisor	Date
Revision to:	Atlas <input checked="" type="checkbox"/> Catalog <input type="checkbox"/>		<u>3/11/02</u>
	Both <input type="checkbox"/>	AWC Project Biologist	Date
Revision Code:	<u>B-1 B-2</u>		<u>3/11/02</u>
		Drafted	Date

OBSERVATION INFORMATION

Species	Date(s) Observed	Spawning	Rearing	Present	Anadromous
Chinook	<u>All hatchery strays</u>	<u>Not allowed into</u>	<u>systems</u>	<input type="checkbox"/>	<input type="checkbox"/>
Chum	<u>Aug - mostly hatchery strays</u>				<input type="checkbox"/>
Cutthroat Trout	<u>All year</u>	<u>don't know</u>	<u>Auke Lake Auke C.</u>		<input checked="" 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: Add species ~~Chinook~~, Chum and Cutthroat Trout to system. See attached report and data from ADF&G Sportfish Division Fisheries Data Series Report No. 99-32.

drop chinook - all are hatchery fish from dipnet
chum spawn in Lake Cude, Auke Creek (F.W. & intertidal areas)
and in Lake-two Creek.
cutthroat ~~spawn~~ probably spawn & rear in all trib. to Auke Lake, and in
Auke Creek.

Name of Observer (please print): KURT Kondzela
 Signature: Kurt Kondzela
 Address: 802 3rd St.
Douglas, AK 99824

Date: 3-6-02

This certifies that in my best professional judgment and belief the above information is evidence that this water body should be included in or deleted from the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes per AS 16.05.870.

Signature of Area Biologist: Mark Schwan

ALASKA DEPT. OF
FISH & GAME
MAR 11 2002
Revision 3/97
REGION II
HABITAT AND RESTORATION
DIVISION

Add CTs to streams

111-50-10420-2013

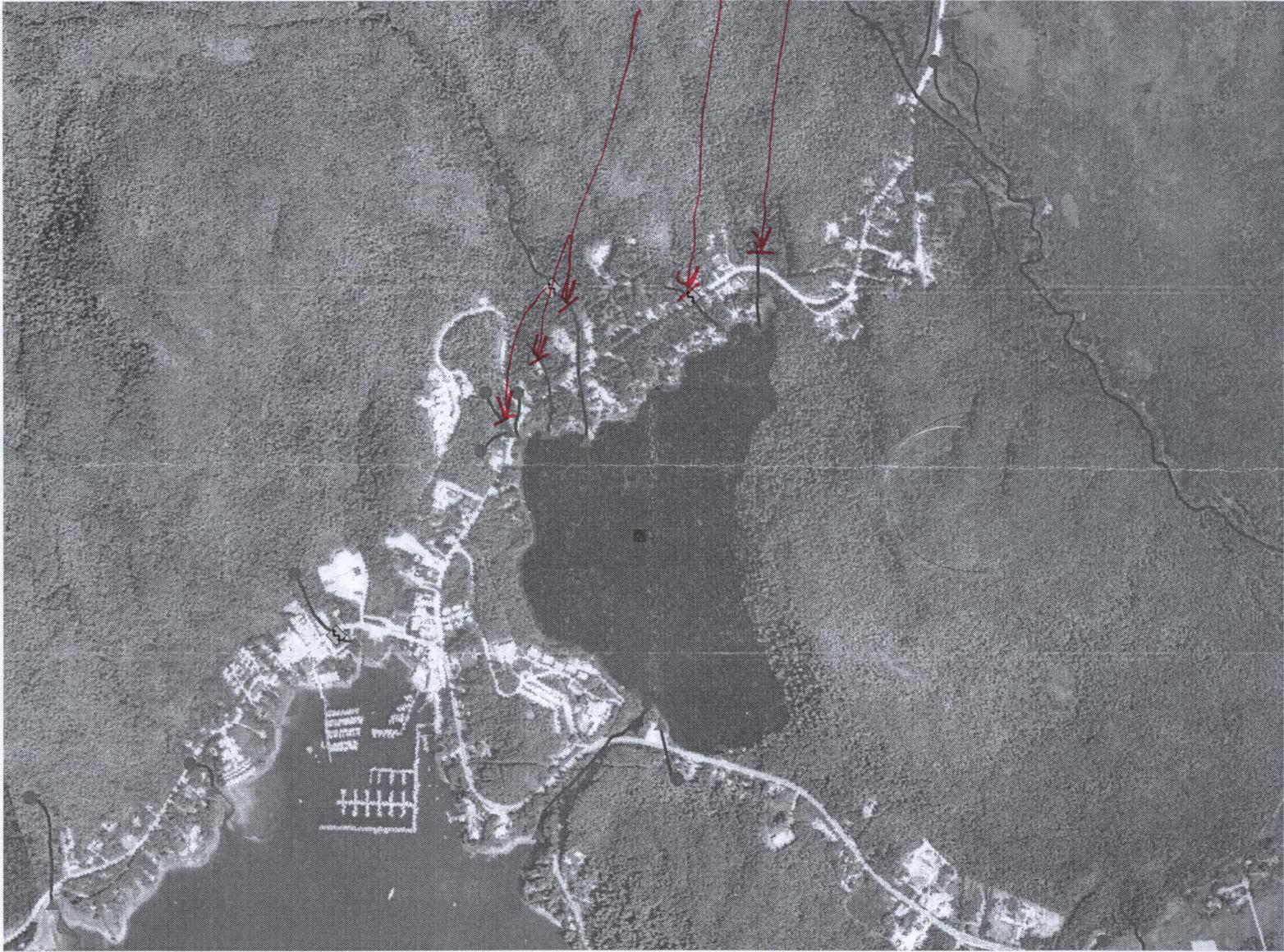
2013-3003-4001

2008

2006

2015

Cutthroat trout spawning
streamers



Fishery Data Series No. 99-32

Dolly Varden and Cutthroat Trout Populations in Auke Lake, Southeast Alaska, during 1998

by

Judith L. Lum,

J. Douglas Jones,

Kurt Kondzela,

and

Sidney G. Taylor

November 1999

Alaska Department of Fish and Game

Division of Sport Fish



Table 1.—Average number of migrant fish of all species counted at Auke Creek, 1980–1998.

Annual average	Pink salmon	Coho salmon	Sockeye salmon	Chum salmon	Chinook salmon	Dolly Varden	Cutthroat trout	Steelhead
Emigrating	108,476	6,622	16,349	4,684	—	6,442	256	12 ^a
Immigrating	10,106	699	5,481	664	191	5,349 ^a	414 ^a	3 ^a

^a Average of only 1997 and 1998 weir counts.

abundance of resident cutthroat trout, without respect to size, at 694 (SE = 157). As tagged fish from this study were recovered in marine waters by sport anglers during the following summers, it is clear that Auke Lake is used as rearing area for sea-run, as well as resident cutthroat trout.

Dolly Varden populations along the Juneau roadside declined severely in the late 1970s, and special regulations were put into effect to reduce harvest. As part of those regulations, Auke Lake was closed to fishing for Dolly Varden, as were other local lake systems. Populations have improved in recent years but not to historical levels so the restrictions remain in place. This project gives us annual counts of the spring emigration to use as an indicator of the relative abundance of local populations of Dolly Varden.

The purpose of this report is to summarize weir studies of Dolly Varden and cutthroat trout in 1998, along with a study to estimate abundance

of cutthroat trout residing in Auke Lake. The objectives of this project were to: (1) count all Dolly Varden and cutthroat trout emigrating from Auke Lake from March 1 through June 30; (2) estimate the size composition of emigrating Dolly Varden and sea-run cutthroat trout; (3) count all sea-run Dolly Varden and cutthroat trout that enter Auke Lake from June 30 through November 15; (4) measure all marked Dolly Varden and cutthroat trout that enter Auke Lake from June 30 through November 15; and (5) estimate the abundance of resident cutthroat trout in Auke Lake in July and August.

STUDY SITE

The Auke Lake system is a mainland watershed covering 1,072 ha and located approximately 19 km north of Juneau, Alaska (58°23', 134°37'), on the Juneau road system (Figure 1). Auke Lake has a surface area of 67 ha and is fed by five

Table 2.—Estimates of sport fishing effort, total catch, and harvest of cutthroat trout and Dolly Varden in the Auke Lake drainage, 1990–1997. (Unpublished estimates from A. L. Howe, Alaska Department of Fish and Game, Anchorage, personal communication. All estimates for Auke Lake were derived from low sample sizes and are considered imprecise).

Year	No. anglers	No. trips	No. days	Cutthroat trout		Dolly Varden ^a	
				Catch	Harvest	Catch	Harvest
1990	34	34	34	17	17	0	0
1991	16	33	23	0	0	0	0
1992	75	87	75	73	0	0	0
1993	50	325	271	391	224	49	0
1994 ^b	—	—	—	—	—	—	—
1995	29	32	29	26	0	0	0
1996	59	485	485	1,070	0	405	0
1997	47	63	63	20	0	46	0

^a Auke Lake closed to the harvest of Dolly Varden.

^b — indicates no estimates made.