

RECEIVED
MAR 13 1989
STATE DEPARTMENT OF WILDLIFE

WASHINGTON DEPARTMENT OF WILDLIFE

SUB-BASIN PLANNING
BOX 1291
CHELAN, WASHINGTON 98816
(509) 682-3226

MEMORANDUM

March 9, 1989

TO: Jim Cummins and Larry Brown

FROM: Jim Spotts *Jim*

SUBJECT: 1985 Bull Trout Survey Data

Here is my reconstructed (from pocket calendar scribbles) bull trout survey data for 1985. I apologize for the delay in getting back to you, however, your letter of September 26, 1988 seems to have found temporary sanctuary (only 5 months) in a fissure in my in-basket. Nevertheless, I have done my best to decipher my notes and here are the results. I'm sure that this data has already been forwarded to at least one of you (**probably Cummins**) in some sort of report form. Also, I disavow any knowledge of the whereabouts of the missing 1987 Indian Creek bull trout surveys.

Date	Water	#Redds	#False Redds	#Males	#Females
9/9	Gold Creek	No Fish			
9/13	" "	2	0	1	0
9/20	" "	2	0	0	0

9/9 Mineral Creek No Fish

9/14	Bx Canyon Creek	3	2	3	1
9/20	" "	4	3	2	0

* Notes indicate that flow at mouth of Bx. Canyon Creek was only an inch or so on 9/14 and was intermittent on 9/20.

/ 9/17 Indian Creek 37 18 38 24

* Includes left bank side channel (from where spring bubbles up along road to mainstem Indian Creek). Survey includes entire live stream to confluence with Rimrock Lake. Area above upper right bank side channel (spring) to upper waterfall was dry with only intermittent flow (i.e., not accessible to fish). * I seem to recall another survey later in September, unfortunately, I no longer have any records for that survey. If my memory serves me correctly, there were few fish present in the creek at that time and the redd count was approximately the same.

WASHINGTON DEPARTMENT OF WILDLIFE

Date	Water	#Redds	#False Redds	#Males	#Females
9/23	Panther Creek	4	3	2	3

* Low flow (inches) at mouth of Panther Creek. No bull trout were observed in White River at crossing. One redd was located in lowest Panther Creek pool just above confluence with White River. No redds above cataracts (below upper waterfall).

Well, thats the best I can do with my meager notes. If you have any questions give me a call.

Jim Cummins and Larry Brown

Bull Trout Survey Data

Here are my reconstructed (from pocket calendar scribbles) bull trout survey data for 1985. I apologize for the delay in getting back to you. However, your letter of September 26, 1988 seems to have found temporary sanctuary (only 5 months) in a fissure in my pocket. Nevertheless, I have done my best to decipher my notes. Here are the results. I'm sure that this data has already been forwarded to at least one of you (probably Cummins) in some form of report form. Also, I disavow any knowledge of the whereabouts of the missing 1987 Indian Creek bull trout surveys.

Date	Water	#Redds	#False Redds	#Males	#Females
8/9	Gold Creek	No Fish			
9/13	" "	2	0	1	0
9/20	" "	2	0	0	0

9/9 Mineral Creek No Fish

Date	Water	#Redds	#False Redds	#Males	#Females
9/14	Rx Canyon Creek	3	2	3	1
9/20	" "	4	3	2	0

* Notes indicate that flow at mouth of Rx Canyon Creek was only an inch or so on 9/14 and was intermittent on 9/20.

Date	Water	#Redds	#False Redds	#Males	#Females
9/17	Indian Creek	37	18	33	24

* Includes left bank side channel (from where spring bubbles up along road to mainstem Indian Creek). Survey includes entire live stream to confluence with Rimrock Lake. Area above upper right bank side channel (spring) to upper waterfall was dry with only intermittent flow (i.e., not accessible to fish). * I seem to need another survey later in September, unfortunately, I no longer have any records for that survey. If my memory serves me correctly, there were few fish present in the creek at that time and the redd count was approximately the same.

Indian Creek - 9/12/85 (D) V

Redds

Fish

HHH HHH = 19
HHH IIII

1

HHH HHH HHH HHH
HHH HHH II = 32

↑ From end of Road up: The creek is dry about 150 yards up & is flowing in what was a side channel for 300' above that point, then dry. Fish mostly 16-25" in length. This section only 450 yards long.

Spring Creek from road

Redds

Fish

III = 3

2

HHH HHH IIII = 14

Side channel + spring flow into spring Creek

Redds

Fish

1 ct.

HHH = 8
III

3

1

30
39
09

47
43
90

Water Temp 45°F in both Streams
9/12/85 mercer + Robards

Indian Ck rd end - confluence w/spring

29 redds

35 fish

1

Spring confluence downstream ~ 1/2 mile

7 redds

7 fish

2

Spring upstream from confluence

3 redds

1 fish

3

3

Totals -

69 redds

90 fish

27
156

1116	09/08/85	JS	AS4AS5 BOX CANYON CR	<p>Lake Kachness.</p> <p>DATA FROM OLD 9/14/86 MEMO FROM SPOTTS TO CUMMINS, JUST RECENTLY FOUND.</p> <p>DATA ENTERED INTO DATABASE ON 11/01/93.</p>
545	09/14/85 0952	JS	AS4AS5 BOX CANYON CR	TWO MALES AND ONE FEMALE OBSERVED. THREE REDDS AND 2 FALSE REDDS.
117	09/15/85	JS	AS4AS5 BOX CANYON CR	<p>DATA FROM OLD 9/14/86 MEMO FROM SPOTTS TO CUMMINS, WHICH WAS ONLY RECENTLY LOCATED.</p> <p>DATA ENTERED INTO DATABASE ON 11/01/93.</p>
546	09/20/85 1131	JS	AS4AS5 BOX CANYON CR	RECONSTRUCTED SURVEY NOTES (FROM POCKET CALENDAR) INDICATE FLOW AT MOUTH OF BOX CANYON CREEK ONLY AN INCH OR SO ON 9/14 AND INTERMITTENT ON 9/20
5	09/22/86 1200	LGB	AS4AS5 BOX CANYON CR	<p>Walked from lake to Peekaboo falls. Low and clear. Stream goes underground about 50 yds short of the lake. No access this season. Observed the 3 redds all in same area from 100-200 yds below Peekaboo falls. No sign of fish or redds from Peekaboo to Bomber falls. No recent blasting activity. Looks like this year is a bust for bull trout reproduction.</p>
20	09/17/87 1300	LGB	AS4AS5 BOX CANYON CR	<p>No fish this year again. Creek dry 50-100 yds short of the lakeshore. Reported (USFS) dry since July. No sign of any fish, even in the gravelly area below Peek-a-boo Falls. Did see one CT of about 10" in lower box canyon and one dead CT of 8" just below Peek-a-boo Falls. Several 2"-4" fry observed here and there. Lots of people tracks all along the creek, even through box canyon.</p>
551	09/15/88 1400	LGB	AS4AS5 BOX CANYON CR	CREEK DRY LAST YEAR. CT IN RESERVOIR. FOUND REMAINS

Stream Lake Fish Database
Box Canyon 1985

Year	Wa_nam	Date	Temp	New Redds	False_redds	Total_visible
1985	BOX CANYON CR	9/8/1985		0	1	0
1985	BOX CANYON CR	9/14/1985		3	2	3
1985	BOX CANYON CR	9/15/1985		3	5	6
1985	BOX CANYON CR	9/20/1985		0	3	4

1
9
8
5

1116	09/08/85	JS	AS4AS5 BOX CANYON CR	Lake Kachness. DATA FROM OLD 9/14/86 MEMO FROM SPOTTS TO CUMMINS, JUST RECENTLY FOUND.
				DATA ENTERED INTO DATABASE ON 11/01/93.
545	09/14/85 0952	JS	AS4AS5 BOX CANYON CR	TWO MALES AND ONE FEMALE OBSERVED. THREE REDDS AND 2 FALSE REDDS.
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551	09/15/88 1400	LGB	AS4AS5 BOX CANYON CR	CREEK DRY LAST 150 FT TO RESERVOIR. FOUND REMAINS

Date	Weight	Sex	Age	Location	Species	Notes	Measurements	Sex	Measurements	Live	Dead	Redds	False
07/07/92	1200	LGB	39		AT3AT4 R	GOLD CR		DV BULL	MEMO ONLY				
09/25/84	1200	JS	39	20	AT3AT4 R	GOLD CR (LOWER)	9.50	DV BULL	0 2	2 0		2	1
10/05/84	1200	JS	39	20	AT3AT4 R	GOLD CR (LOWER)		DV BULL	0 0	0 0		2	1
09/09/85	0833	JS	39	20	AT3AT4 R	GOLD CR (LOWER)		DV BULL	0 0	0 0		0	0
09/13/85	0951	JS	39	20	AT3AT4 R	GOLD CR (LOWER)		DV BULL	0 0	1		2	0
09/14/85		JS	39		AT3AT4 R	GOLD CR (LOWER)		DV BULL	0 0	0 0		0	0
09/20/85	0831	JS	39	20	AT3AT4 R	GOLD CR (LOWER)		DV BULL	0 0	0 0		2	0
09/30/85		JS	39		AT3AT4 R	GOLD CR (LOWER)		DV BULL	0 0	0 0		0	0
09/22/86	1500	LGB	39	20	AT3AT4 R	GOLD CR (LOWER)		DV BULL	3 9	12 1	SPEARED	21	3
08/27/87	1300	LGB	39	20	AT3AT4 R	GOLD CR (LOWER)		DV BULL	0 0	1 0		0	0
09/17/87	1000	LGB	39	20	AT3AT4 R	GOLD CR (LOWER)	53F	DV BULL	0 4	4 0		1	0
10/05/87	1030	LGB	39	20	AT3AT4 R	GOLD CR (LOWER)	52F	DV BULL	0 7	7 0		15	43
09/15/88	1200	LGB	39	20	AT3AT4 R	GOLD CR (LOWER)	56F	DV BULL	0 4	4 0		4	3
09/22/88	1100	LGB	39	20	AT3AT4 R	GOLD CR (LOWER)	52F	DV BULL	0 6	6 0		12	70
09/15/89	0900	LGB	39	20	AT3AT4 R	GOLD CR (LOWER)	52F	DV BULL	0 4	4 0		1	0
09/20/89	1000	LGB	39	20	AT3AT4 R	GOLD CR (LOWER)	52F	DV BULL	0 4	4 0		2	17
09/27/90	1330	LGB	39	20	AT3AT4 R	GOLD CR (LOWER)	58F	DV BULL	0 0	0 0		2	0
09/13/91	1400	LGB	39	20	AT3AT4 R	GOLD CR (LOWER)		DV BULL	0 MEMO ---	NO COUNT		6	0
09/20/91	NBRD	FG	39	20	AT3AT4 R	GOLD CR (LOWER)		DV BULL		16 0		3	0
09/18/92	from	FRI	39		AT3AT4 R	GOLD CR (LOWER)		DV BULL		0		0	5
09/30/92	1017	BDB	39		AT3AT4 R	GOLD CR (LOWER)	51F	DV BULL	0 0	0 0		0	0
10/20/92	1000	BDB	39		AT3AT4 R	GOLD CR (LOWER)	48F	DV BULL	0 SURVEY	CANCELLED	RAIN	YUK	
09/23/93	1201	FRI	39		AT3AT4 R	GOLD CR (LOWER)	11.20	DV BULL		2		2	0
09/18/90	1000	LGB	39	20	AT3AT4 R	GOLD CR (UPPER)	52F	DV BULL	0 2	2 0		9	0
09/19/91	CERD	KS	39	20	AT3AT4 R	GOLD CR (UPPER)		DV BULL	0 0	2 2	ANGLERS	3	0
09/20/91	NBRD	FG	39	20	AT3AT4 R	GOLD CR (UPPER)		DV BULL		20		10	
09/18/92	from	FRI	39		AT3AT4 R	GOLD CR (UPPER)		DV BULL		0		11	3
10/09/92	1015	BDB	39		AT3AT4 R	GOLD CR (UPPER)	8.00	DV BULL	0 0	0 0		2	0
09/23/93	1200	FRI	39		AT3AT4 R	GOLD CR (UPPER)	9.60	DV BULL		2	LOST 15 OF 17	9	6
09/18/90		WDW	38	30	Y74Y75 R	HINDOO CR	48F	DV BULL	0 0	0 0		3	0
09/08/84	1200	JS	38	23	Y58Y59 R	INDIAN CR		DV BULL	6 140	146 1	CLUBBED	3	6
09/15/84	1200	JS	38	23	Y58Y59 R	INDIAN CR	110	DV BULL	20 25	45 0		29	22
09/12/85		JS	38		Y58Y59 R	INDIAN CR		DV BULL		90	FALSE IN CLUDED	69	INC
09/17/85	0943	JS	38	23	Y58Y59 R	INDIAN CR		DV BULL		62 0		37	18
09/03/86		JS	38		Y58Y59 R	INDIAN CR		DV BULL		45	PARTIAL SURVEY	16	8
09/12/87		JS	38		Y58Y59 R	INDIAN CR		DV BULL		20		35	
09/02/88	1101	EA	38	23	Y58Y59 R	INDIAN CR	43F	DV BULL		25 0		8	0
09/09/88	1103	EA	38	23	Y58Y59 R	INDIAN CR	45F	DV BULL		25 0		22	0
09/16/88	1105	EA	38	23	Y58Y59 R	INDIAN CR	48F	DV BULL	0 0	23 1	unknown	25	0
09/26/88	1107	EA	38	23	Y58Y59 R	INDIAN CR	43F	DV BULL	0 0	0 0		25	0
09/14/89	1201	EA	38	23	Y58Y59 R	INDIAN CR		DV BULL					

GOLD CREEK BULL TROUT REDD SURVEYS WILL BE DONE BY PERSONNEL FROM NORTH BEND RANGER DISTRICT THIS YEAR ACCORDING TO JERRY SHERRID. I ASSUME FRED GOETZ WILL DO THE SURVEYS IN CONJUNCTION WITH HABITAT SURVEY WORK ON-GOING.

Gold Creek 1985

09/25/84 1200 JS	AT3AT4 GOLD CR (LOWER)	
10/05/84 1200 JS	AT3AT4 GOLD CR (LOWER)	
09/09/85 0833 JS	AT3AT4 GOLD CR (LOWER)	
09/13/85 0951 JS	AT3AT4 GOLD CR (LOWER)	
09/14/85 JS	AT3AT4 GOLD CR (LOWER)	THIS MAY BE CONFLICTING DATA FROM OTHER DATA WHICH JIM SPOTTS RECONSTRUCTED FROM HIS FIELD NOTEBOOK.
		THIS DATA FROM AN OLD 9/14/86 MEMO TO JIM CUMMINS (WHICH JIM FINALLY LOCATED).
		THE MEMO INDICATES NO FISH, NO REDDS AND NO FALSE REDDS ON GOLD CREEK SEPT.14, 1985.
09/20/85 0831 JS	AT3AT4 GOLD CR (LOWER)	
09/30/85 JS	AT3AT4 GOLD CR (LOWER)	DATA MAY CONFLICT WITH OTHER DATA (DATES?) WHICH WERE RECONSTRUCTED BY JIM SPOTTS FROM FIELD NOTEBOOKS.
		THIS ENTRY IS FROM A MEMO FROM SPOTTS TO CUMMINS ON 09/14/86, WHICH HAS JUST RECENTLY (11/01/93) BEEN LOCATED.
		NO FISH AND NO REDDS WERE NOTED, WHICH CONTRASTS WITH DATA RECEIVED EARLIER.
09/22/86 1500 LGB	AT3AT4 GOLD CR (LOWER)	<p>Seven redds observed in lake outlet channel, but no fish. Walked from the lake to about 100 yds below I-90. Stream is dry to intermittent above the lake culvert. From culvert to I-90 found 21 redds and 3 false redds. Observed 3 bull trout on redds and another 9 adults in hiding pools (one VERY large male of 12+ lbs). Found one speared male (55cm) dead. Salvaged otos, Age-7+. Lots of evidence of harassment, sharpened sticks and fresh, clean two-hand rocks in holding and spawning areas.</p>
08/27/87 1300 LGB	AT3AT4 GOLD CR (LOWER)	<p>Spotts and I surveyed from gravel pit all the way to Lake Keechelus. Only 1 bull trout (female) of 5-7 pounds observed about 200 yds above I-90 under log near scaling pit parking area. Had reports of folks chasing and rocking "large fish" last Sunday, just downstream from I-90. No sign of any spawning yet.</p>
09/17/87 1000 LGB	AT3AT4 GOLD CR (LOWER)	<p>From lake to gravel pit pond. Only one redd about 200 yds below pit culvert. 2 large males and one female observed in a deep pool directly below the redd. 1 large male all by his lonesome up in the quiet channel below the gravel pit lake. No sign of any kokanee yet. People tracks and litter everywhere.</p>
10/05/87 1030 LGB	AT3AT4 GOLD CR (LOWER)	<p>From 200 yds below I-90 to pit lake. Kokanee (several hundred) now in the creek and spawning, confounding false redd counts. I re-evaluated redds for actual bull trout spawning on the return trip, but could not separate false bull trout redds from fresh kokanee redds. Bull trout</p>

09/12/85

JS

Y58Y59 INDIAN CR

DISCHARGE WAS MEASURED AT 10:12 A.M.
DATA FROM JIM CUMMINS FILES.

1985 SURVEYS DONE BY JIM SPOTTS, JIM CUMMINS,
STEVE MERCER, AND STEVE ROBARDS.

ENTIRE STREAM FROM RESERVOIR TO FALLS WAS
SURVEYED. HOWEVER, THE CHANNEL WAS DEWATERED ABOVE
THE SOUTH SPRING CONFLUENCE. FISH WERE MOSTLY
16-25 INCHES.

NO FALSE REDDS WERE NOTED, AND NOT KNOWN IF ANY
ARE INCLUDED IN THE REDD COUNT.

INCLUDES LEFT BANK SIDE CHANNEL (FROM WHERE SPRING
BUBBLES UP ALONG ROAD TO MAINSTEM INDIAN CREEK).
SURVEY INCLUDES ENTIRE LIVE STREAM TO CONFLUENCE
WITH RIMROCK LAKE. AREA ABOVE UPPER RIGHT BANK
SIDE CHANNEL (SPRING) TO UPPER WATERFALL WAS DRY
WITH ONLY INTERMITTENT FLOW, NOT ACCESSIBLE TO
FISH. I SEEM TO RECALL ANOTHER SURVEY LATER IN
SEPTEMBER, UNFORTUNATELY I NO LONGER HAVE ANY
RECORD OF THAT SURVEY. IF I REMEMBER CORRECTLY,
THERE WERE FEW FISH PRESENT IN THE CREEK AT THAT
TIME AND THE REDD COUNT WAS ABOUT THE SAME (Jim
Spotts, from pocket calendar notes).

09/17/85 0943 JS

Y58Y59 INDIAN CR

*Entered
2/28/95*

March 1, 1994

GOLD CREEK BULL TROUT SPAWNING SURVEYS

YEAR	LOWER CREEK (INCLUDING POND)		UPPER CREEK (ABOVE POND)	
	Total Redds Counted	Most Adult Bull Trout Observed	Total Redds Counted	Most Adult Bull Trout Observed
1984	2	(2)	no data	
1985	2	(2)	no data	
1986	21	(13)	no data	
1987	15	(7)	no data	
1988	12	(6)	no data	
1989	2	(4)	no data	
1990	2	(0)	9	(2)
1991	6	(16)	10	(20)
1992	3	(0)	11	(0)
1993	2	(2)	9	(17)

lgb

Larry Brown, Area Fish Biologist
Washington Department of Fish and Wildlife

Water Temp 45° F in both streams
 9/12/85 mercer + Robards

Indian Ck rd end - confluence w/ spring

29 Redds

35 fish

Spring confluence downstream ~ 1/2 mile

7 Redds

7 fish

Spring up

3 Redds

1 fish

3

Totals -

69 Redds

90 fish

stream to confluence.

Indian Creek - 9/12/85 DV

Redds

Fish

HHH HHH = 19

HHH HHH HHH HHH

HHH IIII

HHH HHH II = 32

From end of Road up: The creek is dry about 150 yards up & is flowing in what was a side channel for 300' above that point, then dry. Fish mostly 16-25" in length. This section only 450 yards long.

Spring Creek from road

Redds

Fish

III = 3

HHH HHH IIII = 14

Side channel - spring flows into spring Creek

Redds

Fish

14

HHH = 8

1

III

30
 32/19

47
 43/10

STATE OF WASHINGTON

THE DEPARTMENT OF GAME

9/14/86
 RE: Bull trout Spawning Records
 TO: Jim Cummins
 FROM: Jim Spotts

RECEIVED
 SEP 16 1986
 STATE OF WASHINGTON
 DEPARTMENT OF GAME
 YAKIMA OFFICE

Here's the list of streams of concern and the status of those spawning populations you requested (e.g. Bull trout).

Date Surveyed	Stream	Sex	male	female	# redds	# observed
9/14/85	Lolo Creek	♂	♂	♂	♂	♂
9/30/85	" "	" "	" "	" "	" "	" "

9/18/85	Box Canyon Cr.	4	3	♂	1
9/15/85	" "	8	5	5	2

9/23/85	Panther Cr.	5	3	6	5
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* One app. 6lb female was also found w/ head and eggs removed and is not included in the # of observed females (e.g. 3 live + 1 must = 4 females)

Date	Stream	male	female	# redds	# observed
9/3/86	Indian Cr.				
3 little Reddys	" Above log"	13	9	9	6
♂	" Below log"	4	6	3	2
♂	" Spring channel"	6	7	4	♂
		$\frac{23}{23}$	$\frac{22}{22}$	$\frac{16}{16}$	$\frac{8}{8}$

2/24/94

Perhaps on Thursday 9/18/86 we should again survey that reach of Indian Creek again.

Jim Spotts