

west slope - east slope

P. coulteri

Weisel, G. F., D. A. Hanzel and R. L. Newell. 1973.

The pygmy whitefish, Prosopium coulteri, in western Montana. Nat. Mus. Fish. Ser., Fish. Bull., 71(2):587-596

- P. c. - Col., Fraser, Skeena, Yukon, both sides

(Bering Sea - Pacif.) - L. Superior

Saskatchewan L., McDonald Glacial Rk. (Schultz, 41)

Bull L. (K... out,

Flat...

lakes (al...

occurs

Catostomus

Richardsoni

Cottus

Saley, Little Bitterroot

all glacial lakes

malma,

rocheilus (Col. R.)

rocheilus lucii (Col. R.)

West slope
Cuthbert

west slope - east slope

P. coulteri

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- P. c. - Col., Fraser, Skeena, Yukon, both sides

(Bering Sea - Pacif.) - L. Superior

Saskatchewan L., McDonald Glacial Pk. (Schultz, 41)

Bull L. (Kootenai) Mont.

Flathead, Ashley, Savan, Seley, Little Bitterroot lakes (all trib. Clark Fork) - all glacial lakes

occurs w/ S. clarki, Salvelinus malma,

Catostomus catostomus, C. macrocheilus (Col. R.)

Richardsonis balteatus, Ptychocheilus lucii (Col. R.)

Cottus cognatus

- Doug Houston
- Pete Hayden

- Problem
- methods

Kainer
6173

1 cel. 12
- course not found
NY 795

HIST.
Missa To

- letter

pack trip course, headwater Snake

- Yellowstone cuts widely stocked in virtually all tributaries

- Dime Crk. & Owl Crk. large spotted * - recognize

Yellowstone - tax. characters. - pressure no pop.

completely isolated but this native genotype probably
been of both

- Jordan 1889 - trout abundant in Heart L. - Heart L. Henry's
L. - appear dif. from Yellowstone - larger fish with distinct spots.

Evermann 1891

Evermann; Jackson L. Pac Crk. - didn't find fine spotted trout
- list of coll.

- Believe always big spotted above Jackson L. - Jordan Snake in
examined Yellowstone L. - Heart L. - Henry's L. (Henry's Tr.)

Evermann 1896 down Snake to Pac. Crk. to Art. C. & C.

all looked alike

is upper Snake large spotted w/ upper Col. - (west side) -

down est - west. then if ever snakes to the

in Bonanza - fine spotted glaucous ⁹⁵ - ice bar
had.

isolated streams - w. Th. Drinn Crk - large spotted

—Mullens—
801 524-5500

789-0044

Memorandum

TO : Bob Behake

DATE: 12/29/88

FROM : J Mullan

SUBJECT: Age & Growth & misc

I enclose length-age data for salmonids collected in fall from headwaters of Methow River. I think you can dope the data out. Ken Williams did all the aging of otoliths. I was hoping you would pick up on "amazing, world-record slow growth," which relates to cold water temperature. I have great faith in Ken's aging. He aged hundreds of sockeye, if not thousands, in Alaska for FRI (Wn of Wa). This is why FRI abandoned scale reading and went to otolith readings. Ken has explored every opportunity to validate his aging of salmonids by otoliths over the years. When he can't read them he says so. For some unknown reason cutthroat otoliths are generally easy to read. The annuli are clear and distinct. I know we are going to have lots of skeptics when we publish. About only "hard validation" will be photographs, but they will show, much like Bunny Lake brook trout, that scale readings on slow-growing salmonids is extremely flawed.

Now, you may begin to understand why Williams and I are so critical of all the big Northwest Power Council plans to have ~~the~~ salmon and steelhead coming out seas (e.g., Yakima R.)

Unfortunately, we have no samples left from fall work to send. After I wrote you and received your reply, collection of specimens became low priority pending a bryozoa finding. Otolith retrieval, stomach analysis, and sexing are destructive, besides logistical constraints. In addition, the state pathologist had a large order in for specimens related to a parasite survey.

Insofar as what these fish are, we're working on it. Refer to my memo of last winter regarding rainbow/steelhead enigma. Population of rainbows that have mature 3-5 yr old females are undoubtedly rainbows, above falls or below falls. I had hoped to get some help from you on what the cutthroat were. All we had time for in the field was to call them as we saw them - rainbow/cutthroat or cutthroat and the result seemed to make sense.

Nick Whitney picked up on my rainbow/steelhead enigma memo and a MS there was initiated this year (Un. of Wa). I enclose preliminary otolith aging for 789 "steelhead" smolts taken at Rock Island Dam this year. These data are preliminary and will change because Rock Island is the confluence of the system, involving a wide mixture of rainbow or steelhead, and generally the otolith aging is a lot more difficult than a sample of fish ^{from} a single habitat type. That, however, how sex ratios favor females, and standard age for smolting regardless of age (the latter in contrast to literature). Plan on being in Yellowstone with Red. Must see you

First Reading

*Steelhead smolts
from Rock Island
Dam, 1988*

1 Age	Sex	Sex 2 (?)	Length (mm)	Weight (g)	Sample size	Percent of total
			Avg (range)	Avg (range)		
1	M	4	170.8 (165-190)	42.5 (31.7-57.2)	4	0.5
	F		162.2 (154-177)	39.3 (27.9-49.7)	9	1.1
2	M	9	171.9 (137-234)	49.2 (22.3-110)	57	7.2
	F		172.2 (137-270)	49.4 (23.5-185)	98	12.4
3	M	11	166.9 (132-221)	42.2 (15.9-99.6)	126	15.9
	F		168.4 (132-255)	44.2 (19.5-152)	235	29.8
4	M	6	163.8 (120-202)	40.6 (13-84.6)	67	8.5
	F		167.7 (127-270)	43.7 (20.8-194.2)	138	17.5
5	M	3	167.3 (137-228)	43.9 (22.8-110)	19	2.4
	F		170 (130-230)	45.8 (18.9-107.5)	24	3.0
6	M	0	159.3 (150-171)	37.2 (31-48)	3	0.4
	F		162.8 (136-190)	39.7 (22.7-69)	8	1.0
7	F		228	120	1	0.1

Otolith Aging

1

All age 1 fish were recorded for dates 4/21/88 and 4/23/88 except 1 female on 6/10/88. Ten fish had otoliths that were unreadable.

2

Sex not determined.

3

22 fish sampled from the Rocky Reach fyke net tests were not weighed; 10 - 2 yr olds, 10 - 3 yr olds, and 2 - 4 yr olds.

n = 789

Methow R.

- 1 Goat Cals
RB + cuts + bull part
- 2 E. FK. Bottom milk
" + RB. + bull

+ break

3

4

5

R.M. 9.0
Elev. 4680

Upper Coast Creek

STATE OF WASHINGTON
Oct. 10, 1988
THE DEPARTMENT OF GAME

Length	Wt.	Age	Sex	Mat.	Length	Wt.	Age	Sex	Mat.
38 ^{AB/H46}	0.6	0+			130	24.7	2+	F	im DV
37	0.3	0+			157	46.8	3+	F	im DV
33	0.4	0+							
38	0.4	0+							
104	9.2	2+	F	im					
105	12.5	2+	F	im					
115	19.4	2+	M	m					
107	14.4	2+	F	im					
120	20.3	2+	F	im					
121	19.1	2+	M	m					
119	18.3	2+	F	im					
127	24.1	2+	M	m					
122	23.8	2+	M	m					
128	23.6	3+	F	im					
130	26.7	2+	M	m					
137	30.0	2+	M	m					
145	32.0	2+	M	im					
147	45.6	3+	M	m					
173 ^{most} _{RB}	70.7	6+	F	m					
152 ^{most} _{Cuts}	43.5	3+	M	m					
158	47.8	3+	M	m					
160	50.3	3+	M	m					
170	64.7	3+	F	im					
177	71.2	3+	M	m					
164	66.2	3+	M	m					
231 ^{cut}	147.7	6+	F	m					

↑
Bull trout

RM 5,9
 Ele. 2965

South Fork Gold Cr
 STATE OF WASHINGTON
 Oct. 11, 1988
 THE DEPARTMENT OF GAME

Length	Wt.	Age	Mat	Sex	Rainbows
46	0.9	0+	—	—	✓
97	8.6	1+	1m	F	
94	8.9	1+	1m	F	
121	18.8	2+	1m	F	
115	16.2	2+	1m	F	
120	18.7	2+	1m	F	
127	20.5	1+	m	m	
126	22.6	2+	1m	F	
129	23.0	2+	1m	m	
122	20.5	2+	m	m	
133	24.2	2+	1m	m	
128	21.5	2+	1m	F	
143	30.4	3+	m	m	
140	27.7	3+	1m	F	
145	36.1	4+	m	F	
152	39.8	3+	1m	F	
148	36.5	3+	m	m	
163	51.0	3+	m	m	
163	51.4	4+	m	F	
175	68.0	4+	m	m	running sperm
174	66.6	4+	m	m	
176	65.1	3+	m	m	
187	73.0	3+	m	m	

30 resident rainbow trout
 9/11/83
 13 resident yellow perch
 803.7 grams
 1765 g
 43

Many fish eating yellowjackets

RM 0.0
 PLR. 3180

South Creek

STATE OF WASHINGTON

Oct. 11, 1988

THE DEPARTMENT OF GAME

Length	Wt.	Age	Met. Camp	Sex	Rainbows
35	0.5	0 ⁺	-	-	✓
34	0.4	0 ⁺	-	-	✓
69	4.0	1 ⁺	1m	F	
73	4.4	1 ⁺	1m	M	
91	8.4	1 ⁺	1m	F	
101	11.4	2 ⁺	1m	M	
26	20.3	3 ⁺	1m	F	
46	33.1	4 ⁺	1m	F	
43	36.6	4 ⁺	M	M	
155	44.0	3 ⁺	M	M	
116	14.9	2 ⁺	1m	F	DV
80	6.4	1 ⁺	1m	-	Chinook

8 Resident RT 162.2 g
 13 Resident RT 303.7 g

shell hunt

3 cottids 3.2 grams

Hatchery fish
 Resident Steelhead m on

167	47.3				
149	31.4	m		M	→ 207 94.6 1m m
152	39.7	1m		F	
155	41.5	m		M	
180	53.0	1m		F	
173	59.8	m		M	
171	49.5	m		M	
178	63.5	m		M	
188	68.2	m		M	
182	68.7	m		M	
201	89.6	m		M	
209	100.9	m		M	

So. Fork Beaver Creek

R.M. 3.5
Elev. 3720

STATE OF WASHINGTON
Oct. 11, 1988
THE DEPARTMENT OF GAME

Length	Wt.	Age	Mat.	Sex	
59	2.1	0+	-	-	E Brook yes scales
48	1.1	0+			yes scales
55	1.8	0+			
56	1.6	0+			
61	2.5	0+			
66	2.9	0+			
64	2.5	0+			
62	2.6	0+			
64	2.8	0+			
64	2.9	0+			
67	3.3	0+			
67	3.1	0+			
67	3.7	0+			
70	3.6	0+			
63	2.7	0+			
66	3.3	0+			
65	3.2	0+			
69	3.2	0+			
72	4.3	0+			
109	13.3	1+	1m	♀	
108	12.4	1+	1m	♀	
108	14.0	1+	m	m	all 1+ males that are mature are running with sperm
112	14.3	1+	im	♀	
107	13.2	1+	m	m	
111	15.3	1+	m	m	
109	14.5	1+	m	m	
106	12.7	1+	1m	m	EB

THE DEPARTMENT OF GAME

Length	Wt	age	Mat.	Sex	EB
112	16.0	1+	m	m	EB
115	15.8	1+	im	m	
113	13.4	1+	im	♀	
118	16.5	1+	im	m	
115	19.0	1+	im	m	
123	19.2	2+	im	♀	
118	18.7	1+	m	m	
121	19.2	1+	im	♀	
117	17.0	1+	M	m	
111	15.8	1+	m	m	
123	19.1	1+	im	♀	
126	21.2	2+	im	♀	
127	24.4	2+	m	m	
147	35.6	2+	m	m	
139	27.4	2+	im	♀	
131	23.3	2+	im	♀	
145	32.1	2+	im	♀	
157	41.0	2+	im	♀	
150	35.2	2+	m	m	
146	32.6	2+	m	m	
159	45.7	2+	m	m	
170	50.1	3+	m	m	
182	76.8	3+	m	m	
190	86.2	4+	m	m	Rainbow

Sta 1 - East Fork Buttermilk 9/12/88

RM 3.8
4440' Elev.

Catthroat YOY

Lgt	Wgt	Sex	Age
30mm			
30mm			
32mm			
32mm			
29mm			
25mm			
31mm			
32mm	5g		
23mm			
31mm			
32mm			
30mm			
31mm			
23mm			
30mm			
30mm			
32mm			

+ 32, 31 mm
28, 32, 29

Tot 22

$$\frac{17}{5} \times \frac{22}{x} =$$

$$22 \overline{) 655}$$

Catthroat

133mm	27g	M	♂	3+	
125mm	22g	m	♂	3+	
178mm	67g	m	♂	5+	Tot 5
173mm	59g	M	♀	5+	
176mm	60g	m	♀	6+	235 grams

2nd Sta Buttermilk East Fork 9/12/83

Rainbow/Steelhead

Lgt. Wgt.

68 mm

73 mm

68 mm

68 mm

73 mm

65 mm

58 mm

65 mm

68 mm

66 mm

58 mm

60 mm

61 mm

59 mm

74 mm

68 mm

67 mm

60 mm

72 mm

66 mm

68 mm

71g more likely 1+

n=21

2nd Sta

Buttermilk

East Fork

9/12/88

Rainbow / Steelhead				
Lgt	Wgt	Sex	Age	
92mm	71g			
93mm				
104mm				
94mm				
95mm				
83mm				
95mm				
83mm				
94mm				
83mm				
91mm				
114mm	14g	Mat. M	3+	Ms 22
123mm	23g	Mat. M	3+	
121mm	22g	Mat. M	3+	
114mm	12g	Im. F	3+	
128mm	24g	Interm. F	3+	
125mm	21g	Mat. M.	4+	
122mm	21g	Mat. F	3+	
133mm	28g	Mat. M	3+	
122mm	20g	Interm. F	3+	
142mm	30g	Mat. F	4+	
134mm	26g	Mat. F	4+	

2nd Sta. Buttermilk East Fork 9/12/88

Rainbow/Steelhead

Lgt Wgt

143 mm 20 g

106 mm 14 g

112 mm 15 g

105 mm 16 g

120 mm 15 g

108 mm 13 g

105 mm 15 g

112 mm 15 g

115 mm 18 g

104 mm 13 g

M 10

2nd Sta. Buttermilk East Fork

9/12/88

YOY

Lgt Wgt

53 mm

32 mm

31 mm

41 mm

30 mm

41 mm

4g

Rainbow/Steelhead

Lgt

Wgt

Sex

Age

87 mm

6g

Im. F

2+

100 mm

9g

Im. F

2+

94 mm

9g

Im. F

2+

110 mm

14g

Mat. M

3+

104 mm

11g

Interm F

3+

n=12

107 mm

13g

Im. F

2+

103 mm

13g

Mat. M

2+

100 mm

12g

Mat. M

2+

110 mm

15g

Im. F

3+

110 mm

15g

Mat. M

3+

97 mm

12g

Im. F

2+

95 mm

7g

Mat. M

2+

✓

2nd State Buttermilk 9/12/82

Bull trout East Fork

Lgt	Wgt	Sex	Age	
204 mm	106g	Im. F	4+	stomach cont. 4 rainbow
130 mm	19g	Im. M	3+	

Rainbow/Steelhead

Lgt	Wgt	Sex	Age	
150 mm	36g	Mat. F	5+	stomach cont big stonefly
127 mm	24g	Mat. F	4+	
116 mm	18g	Im. F	3+	
156 mm	42g	Mat. M	4+	
132 mm	28g	Mat. F	4+	
153 mm	35g	Mat. F	5+	
154 mm	42g	Mat. M	5+	
134 mm	27g	Mat. M	3+	m 14 ✓
158 mm	45g	Mat. M	5+	
135 mm	30g	Im. F	3+	
134 mm	25g	Mat. M	3+	
84 mm	4g	Im. F	2+	
77 mm	3g	Im. M	1+	
75 mm	3g	Im. M	1+	
73 mm	2.5g	Im. M	1+	
65 mm	2g	Im. F	1+	
87 mm	4g	Im. F	1+	
83 mm	4g	Im. F	2+	
86 mm	6g	Im. F	1+	

Stall East Fork Buttermilk 9/12/22

Cutthroat

Lgth	Wgt	Sex	Age	
106	13	m ♂	2+	
109	14	Im ♂	2+	
104	14	—	?	
90	9	im ♂	2+	
95	10	m ♂	2+	
99	9	Im ♀	2+	
97	10	Im ♀	3+	
90	8	Im ♀	2+	
72	6	Im ♂	1+	
102	11	m ♂	2+	
98	10	Im ♀	2+	
72	4	Im ♀	1+	22
73	5	Im ?	1+	
70	4	Im ♂	1+	
60	3	Im ♀	1+	
74	4	Im ♀	++	
130	21	Im ♀	intermediate 3+	
131	25	m ♂	3+	
129	23	m ♂	3+	
132	23	Im ♀	intermed 3+	
68	3	Im ?	1+	
89	8	Im ?	2+	
132	24	m ♀	intermed 3+	

Stal East Fork Buttermilk 9/12/88

Cutthroat			
Lgt	Wgt	Sex	Age
190mm	83g	m ♂	3+
153mm	41g	m ♂	3+
168mm	62g	m ♀	7+
171mm	61g	m ♂	5+
152mm	43g	m ♂	3+
155mm	44g	m ♂	5+
135	27	m ♂	3+
152	42	m ♂	4+
131	21.5	Im ♀	3+
137	25.0	m ♂	3+
135	28.0	m ♂	3+
131	27.0	m ♂	3+
135	30.0	m ♂	3+
157	40.0	Im ♀	3+
143	32.0	m ♂	3+
124	20.0	m ♂	3+
130	21.0	M ♀	3+
141	38.0	m ♂	3+
136	31.0	m ♂	3+
103	13.0	Im ♀	2+
113	14.0	m ♂	2+
112	14.0	m ♂	2+

Tot 22

Sta 1 EFK Buttermilk
9/12/88 -85

Length	Wgt	Length	Length	Length
111	17	83	62	77
116	16	96	70	77
118	18	97	93	73
120	20	91	94	73
127	24	88	76	73
102	16	90	77	74
101	18	85	75	63
103	12	97	74	78
97	13	69	76	75
105	14	92	79	75
97		95	89	75
		70	70	78
Total		66	65	78
		96	75	94
		66	93	75
		66	83	73
		75	75	73

380
- 85

295 g

E. FK and W. FK Combined

Buttermilk Creek

bull trout

Methow Valley Stream Surveys 1988

Creek	Date	Mile	Sp	Lgth	Wt	C.F.	Sex	Mat	Age
ButmlkEF	9-88	0.0	DV	112	12.4	0.88	f	im	2+
ButmlkEF	9-88	0.0	sh	38					0+
ButmlkEF	9-88	0.0	sh	45					0+
ButmlkEF	9-88	0.0	sh	35					0+
ButmlkEF	9-88	0.0	sh	35					0+
ButmlkEF	9-88	0.0	sh	40					0+
ButmlkEF	9-88	0.0	sh	44					0+
ButmlkEF	9-88	0.0	sh	35					0+
ButmlkEF	9-88	0.0	sh	26					0+
ButmlkEF	9-88	0.0	sh	37					0+
ButmlkEF	9-88	0.0	sh	34					0+
ButmlkEF	9-88	0.0	sh	40					0+
ButmlkEF	9-88	0.0	sh	42					0+
ButmlkEF	9-88	0.0	sh	37					0+
ButmlkEF	9-88	0.0	sh	30					0+
ButmlkEF	9-88	0.0	sh	30					0+
ButmlkEF	9-88	0.0	sh	38					0+
ButmlkEF	9-88	0.0	sh	43					0+
ButmlkEF	9-88	0.0	sh	45					0+
ButmlkEF	9-88	0.0	sh	45					0+
ButmlkEF	9-88	0.0	sh	42					0+
ButmlkEF	9-88	0.0	sh	39					0+
ButmlkEF	9-88	0.0	sh	38					0+
ButmlkEF	9-88	0.0	sh	38					0+
ButmlkEF	9-88	0.0	sh	39					0+
ButmlkEF	9-88	0.0	sh	25					0+
ButmlkEF	9-88	0.0	sh	38					0+
ButmlkEF	9-88	0.0	sh	32					0+
ButmlkEF	9-88	0.0	sh	35					0+
ButmlkEF	9-88	0.0	sh	35					0+
ButmlkEF	9-88	0.0	sh	43					0+
ButmlkEF	9-88	0.0	sh	45					0+
ButmlkEF	9-88	0.0	sh	31					0+
ButmlkEF	9-88	0.0	sh	35					0+
ButmlkEF	9-88	0.0	sh	32					0+
ButmlkEF	9-88	0.0	sh	27	0.2	1.02			0+
ButmlkEF	9-88	0.0	sh	29	0.3	1.23			0+
ButmlkEF	9-88	0.0	sh	29	0.3	1.23			0+
ButmlkEF	9-88	0.0	sh	33	0.3	0.83			0+
ButmlkEF	9-88	0.0	sh	32	0.3	0.92			0+
ButmlkEF	9-88	0.0	sh	29	0.3	1.23			0+
ButmlkEF	9-88	0.0	sh	37	0.3	0.59			0+
ButmlkEF	9-88	0.0	sh	29	0.3	1.23			0+
ButmlkEF	9-88	0.0	sh	30	0.3	1.11			0+
ButmlkEF	9-88	0.0	sh	31	0.3	1.01			0+
ButmlkEF	9-88	0.0	sh	32	0.3	0.92			0+
ButmlkEF	9-88	0.0	sh	29	0.3	1.23			0+
ButmlkEF	9-88	0.0	sh	32	0.3	0.92			0+
ButmlkEF	9-88	0.0	sh	29	0.4	1.64			0+
ButmlkEF	9-88	0.0	sh	30	0.4	1.48			0+
ButmlkEF	9-88	0.0	sh	34	0.4	1.02			0+
ButmlkEF	9-88	0.0	sh	37	0.5	0.99			0+

34 ot Total wt. = 19.45

~~12x3 = 3.6
 1x2 = 0.2
 3x4 = 1.2
 4x5 = 2.0
 4x6 = 2.4
 1x7 = 0.7
 1x8 = 0.8
 3x9 = 2.7
 1.2~~

057

ButmlkEF	9-88	0.0	sh	35	0.5	1.17			0+
ButmlkEF	9-88	0.0	sh	34	0.5	1.27			0+
ButmlkEF	9-88	0.0	sh	37	0.5	0.99			0+
ButmlkEF	9-88	0.0	sh	38	0.6	1.09			0+
ButmlkEF	9-88	0.0	sh	38	0.6	1.09			0+
ButmlkEF	9-88	0.0	sh	37	0.6	1.18			0+
ButmlkEF	9-88	0.0	sh	38	0.6	1.09			0+
ButmlkEF	9-88	0.0	sh	41	0.7	1.02			0+
ButmlkEF	9-88	0.0	sh	40	0.8	1.25			0+
ButmlkEF	9-88	0.0	sh	45	0.9	0.99			0+
ButmlkEF	9-88	0.0	sh	41	0.9	1.31			0+
ButmlkEF	9-88	0.0	sh	43	0.9	1.13			0+
ButmlkEF	9-88	0.0	sh	45	1.0	1.10			0+
ButmlkEF	9-88	0.0	sh	45	1.0	1.10			0+
ButmlkEF	9-88	0.0	sh	45	1.1	1.21			0+
ButmlkEF	9-88	0.0	sh	47	1.2	1.16			0+
<hr/>									
ButmlkEF	9-88	0.0	sh	71					1+
ButmlkEF	9-88	0.0	sh	67					1+
ButmlkEF	9-88	0.0	sh	73					1+
ButmlkEF	9-88	0.0	sh	70					1+
ButmlkEF	9-88	0.0	sh	65					1+
ButmlkEF	9-88	0.0	sh	63					1+
ButmlkEF	9-88	0.0	sh	70					1+
ButmlkEF	9-88	0.0	sh	85					1+
ButmlkEF	9-88	0.0	sh	73					1+
ButmlkEF	9-88	0.0	sh	68					1+
ButmlkEF	9-88	0.0	sh	65					1+
ButmlkEF	9-88	0.0	sh	72					1+
ButmlkEF	9-88	0.0	sh	65					1+
ButmlkEF	9-88	0.0	sh	66					1+
ButmlkEF	9-88	0.0	sh	62					1+
ButmlkEF	9-88	0.0	sh	77					1+
ButmlkEF	9-88	0.0	sh	80					1+
ButmlkEF	9-88	0.0	sh	75					1+
ButmlkEF	9-88	0.0	sh	63					1+
ButmlkEF	9-88	0.0	sh	65					1+
ButmlkEF	9-88	0.0	sh	70					1+
ButmlkEF	9-88	0.0	sh	74					1+
ButmlkEF	9-88	0.0	sh	81					1+
ButmlkEF	9-88	0.0	sh	65					1+
ButmlkEF	9-88	0.0	sh	81	5.9	1.11	f	im	1+
ButmlkEF	9-88	0.0	sh	66	3.4	1.18	f	im	1+
ButmlkEF	9-88	0.0	sh	81	6.2	1.17	f	im	1+
ButmlkEF	9-88	0.0	sh	62	2.6	1.09	f	im	1+
ButmlkEF	9-88	0.0	sh	66	3.3	1.15	f	im	1+
ButmlkEF	9-88	0.0	sh	77	4.8	1.05	f	im	1+
ButmlkEF	9-88	0.0	sh	61	2.4	1.06	f	im	1+
ButmlkEF	9-88	0.0	sh	79	5.4	1.10	f	im	1+
ButmlkEF	9-88	0.0	sh	71	4.6	1.29	f	im	1+
ButmlkEF	9-88	0.0	sh	75	4.6	1.09	f	im	1+
ButmlkEF	9-88	0.0	sh	68	3.8	1.21	f	im	1+
ButmlkEF	9-88	0.0	sh	80	6.6	1.29	f	im	1+
ButmlkEF	9-88	0.0	sh	74	4.6	1.14	f	im	1+
ButmlkEF	9-88	0.0	sh	66	3.4	1.18	f	im	1+
ButmlkEF	9-88	0.0	sh	82	6.2	1.12	f	im	1+
ButmlkEF	9-88	0.0	sh	79	5.9	1.20	f	im	1+

2" 1 x 1.2
 32 / 16.89 Tot
 0.53 CW

66 yoy

n = 24

24 1+ total wt. = 99.5g

16

ButmlkEF	9-88	0.0	sh	81	5.8	1.09	f	im	1+
ButmlkEF	9-88	0.0	sh	65	3.1	1.13	m	im	1+
ButmlkEF	9-88	0.0	sh	77	4.9	1.07	m	im	1+
ButmlkEF	9-88	0.0	sh	72	4.6	1.23	m	im	1+
ButmlkEF	9-88	0.0	sh	64	3.3	1.26	m	im	1+
ButmlkEF	9-88	0.0	sh	81	7.0	1.32	m	im	1+
ButmlkEF	9-88	0.0	sh	72	4.5	1.21	m	im	1+
ButmlkEF	9-88	0.0	sh	84	6.3	1.06	m	im	1+
ButmlkEF	9-88	0.0	sh	68	3.6	1.14	m	im	1+
ButmlkEF	9-88	0.0	sh	82	5.7	1.03	m	im	1+
ButmlkEF	9-88	0.0	sh	60	2.6	1.20	m	im	1+
ButmlkEF	9-88	0.0	sh	79	5.2	1.05	m	im	1+
ButmlkEF	9-88	0.0	sh	67	3.7	1.23	m	im	1+
ButmlkEF	9-88	0.0	sh	80	5.5	1.07	m	m	1+
ButmlkEF	9-88	0.0	sh	70	4.0	1.17	m	im	1+
ButmlkEF	9-88	0.0	sh	61	2.8	1.23	m	im	1+
ButmlkEF	9-88	0.0	sh	81	5.4	1.02	m	im	1+
ButmlkEF	9-88	0.0	sh	83	6.3	1.10	m	im	1+
ButmlkEF	9-88	0.0	sh	73	4.1	1.05	m	im	1+
ButmlkEF	9-88	0.0	sh	66	3.3	1.15	m	im	1+
ButmlkEF	9-88	0.0	sh	75	4.6	1.09	m	im	1+
ButmlkEF	9-88	0.0	sh	72	4.0	1.07	m	im	1+
ButmlkEF	9-88	0.0	sh	70	4.1	1.20	m	im	1+
ButmlkEF	9-88	0.0	sh	86	7.6	1.19			2+
ButmlkEF	9-88	0.0	sh	87	7.5	1.14	f	im	2+
ButmlkEF	9-88	0.0	sh	92	7.7	0.99	f	im	2+
ButmlkEF	9-88	0.0	sh	99	11.6	1.20	f	im	2+
ButmlkEF	9-88	0.0	sh	87	7.5	1.14	f	im	2+
ButmlkEF	9-88	0.0	sh	95	10.0	1.17	f	im	2+
ButmlkEF	9-88	0.0	sh	90	8.8	1.21	f	im	2+
ButmlkEF	9-88	0.0	sh	85	6.9	1.12	f	im	2+
ButmlkEF	9-88	0.0	sh	91	7.6	1.01	f	im	2+
ButmlkEF	9-88	0.0	sh	97	12.0	1.31	f	im	2+
ButmlkEF	9-88	0.0	sh	93	8.8	1.09	f	im	2+
ButmlkEF	9-88	0.0	sh	96	9.4	1.06	f	im	2+
ButmlkEF	9-88	0.0	sh	97	10.4	1.14	f	im	2+
ButmlkEF	9-88	0.0	sh	91	8.1	1.07	f	im	2+
ButmlkEF	9-88	0.0	sh	102	10.8	1.02	f	im	2+
ButmlkEF	9-88	0.0	sh	96	9.1	1.03	f	im	2+
ButmlkEF	9-88	0.0	sh	96	9.7	1.10	f	im	2+
ButmlkEF	9-88	0.0	sh	82	6.0	1.09	f	im	2+
ButmlkEF	9-88	0.0	sh	96	9.0	1.02	f	im	2+
ButmlkEF	9-88	0.0	sh	101	11.1	1.08	f	im	2+
ButmlkEF	9-88	0.0	sh	95	9.5	1.11	m	im	2+
ButmlkEF	9-88	0.0	sh	103	13.1	1.20	m	m	2+
ButmlkEF	9-88	0.0	sh	90	7.8	1.07	m	m	2+
ButmlkEF	9-88	0.0	sh	86	7.6	1.19	m	im	2+
ButmlkEF	9-88	0.0	sh	95	9.3	1.08	m	im	2+
ButmlkEF	9-88	0.0	sh	105	15.0	1.30	m	im	2+
ButmlkEF	9-88	0.0	sh	94	9.6	1.16	m	im	2+
ButmlkEF	9-88	0.0	sh	95	9.3	1.08	m	im	2+
ButmlkEF	9-88	0.0	sh	103	11.4	1.04	m	im	2+
ButmlkEF	9-88	0.0	sh	99	11.0	1.13	m	im	2+
ButmlkEF	9-88	0.0	sh	94	9.1	1.10	m	im	2+
ButmlkEF	9-88	0.0	sh	92	8.8	1.13	m	im	2+
ButmlkEF	9-88	0.0	sh	102	12.2	1.15	m	im	2+

56

ButmlkEF	9-88	0.0	sh	96	9.6	1.09	m	m	2+
ButmlkEF	9-88	0.0	sh	90	8.7	1.19	m	im	2+
ButmlkEF	9-88	0.0	sh	96	9.0	1.02	m	im	2+
ButmlkEF	9-88	0.0	sh	97	10.0	1.10	m	im	2+
ButmlkEF	9-88	0.0	sh	83	7.4	1.29	m	im	2+
ButmlkEF	9-88	0.0	sh	102	11.4	1.07	m	im	2+
ButmlkEF	9-88	0.0	sh	105	12.2	1.05	m	im	2+
ButmlkEF	9-88	0.0	sh	90	8.5	1.17	m	im	2+
ButmlkEF	9-88	0.0	sh	106	13.5	1.13	m	m	2+
ButmlkEF	9-88	0.0	sh	118	16.8	1.02	f	m	3+
ButmlkEF	9-88	0.0	sh	105	13.9	1.20	f	im	3+
ButmlkEF	9-88	0.0	sh	118	21.7	1.32	f	im	3+
ButmlkEF	9-88	0.0	sh	119	19.3	1.15	f	im	3+
ButmlkEF	9-88	0.0	sh	106	13.4	1.13	f	im	3+
ButmlkEF	9-88	0.0	sh	118	18.3	1.11	f	im	3+
ButmlkEF	9-88	0.0	sh	116	18.4	1.18	f	im	3+
ButmlkEF	9-88	0.0	sh	124	21.1	1.11	f	im	3+
ButmlkEF	9-88	0.0	sh	109	12.4	0.96	f	im	3+
ButmlkEF	9-88	0.0	sh	121	19.0	1.07	f	im	3+
ButmlkEF	9-88	0.0	sh	134	26.6	1.11	f	im	3+
ButmlkEF	9-88	0.0	sh	106	11.8	0.99	f	im	3+
ButmlkEF	9-88	0.0	sh	120	22.6	1.31	f	m	3+
ButmlkEF	9-88	0.0	sh	103	11.3	1.03	f	im	3+
ButmlkEF	9-88	0.0	sh	128	26.4	1.26	f	m	3+
ButmlkEF	9-88	0.0	sh	113	15.4	1.07	f	im	3+
ButmlkEF	9-88	0.0	sh	118	17.4	1.06	f	im	3+
ButmlkEF	9-88	0.0	sh	115	16.6	1.09	f	im	3+
ButmlkEF	9-88	0.0	sh	97	9.2	1.01	f	im	3+
ButmlkEF	9-88	0.0	sh	113	15.8	1.10	f	im	3+
ButmlkEF	9-88	0.0	sh	122	20.1	1.11	f	im	3+
ButmlkEF	9-88	0.0	sh	120	23.3	1.35	m	m	3+
ButmlkEF	9-88	0.0	sh	144	33.8	1.13	m	m	3+
ButmlkEF	9-88	0.0	sh	116	19.1	1.22	m	m	3+
ButmlkEF	9-88	0.0	sh	119	19.5	1.16	m	m	3+
ButmlkEF	9-88	0.0	sh	110	13.6	1.02	m	m	3+
ButmlkEF	9-88	0.0	sh	109	16.6	1.28	m	m	3+
ButmlkEF	9-88	0.0	sh	112	15.9	1.13	m	m	3+
ButmlkEF	9-88	0.0	sh	114	17.3	1.17	m	im	3+
ButmlkEF	9-88	0.0	sh	120	21.1	1.22	m	m	3+
ButmlkEF	9-88	0.0	sh	128	24.5	1.17	m	m	3+
ButmlkEF	9-88	0.0	sh	119	19.6	1.16	m	m	3+
ButmlkEF	9-88	0.0	sh	109	16.7	1.29	m	m	3+
ButmlkEF	9-88	0.0	sh	121	20.7	1.17	m	im	3+
ButmlkEF	9-88	0.0	sh	110	16.2	1.22	m	im	3+
ButmlkEF	9-88	0.0	sh	100	13.0	1.30	m	im	3+
ButmlkEF	9-88	0.0	sh	130	26.3	1.20	m	m	3+
ButmlkEF	9-88	0.0	sh	110	14.1	1.06	m	im	3+
ButmlkEF	9-88	0.0	sh	130	24.4	1.11	m	m	3+
ButmlkEF	9-88	0.0	sh	111	16.5	1.21	m	m	3+
ButmlkEF	9-88	0.0	sh	116	18.6	1.19	m	m	3+
ButmlkEF	9-88	0.0	sh	111	15.0	1.10	m	m	3+
ButmlkEF	9-88	0.0	sh	132	25.5	1.11	m	m	3+
ButmlkEF	9-88	0.0	sh	120	22.7	1.31	m	m	3+
ButmlkEF	9-88	0.0	sh	105	14.4	1.24	m	m	3+
ButmlkEF	9-88	0.0	sh	110	16.4	1.23	m	m	3+
ButmlkEF	9-88	0.0	sh	126	24.2	1.21			4+

56

ButmlkEF	9-88	0.0	sh	134	28.0	1.16	f	im	4+
ButmlkEF	9-88	0.0	sh	134	25.9	1.08	f	m	4+
ButmlkEF	9-88	0.0	sh	137	30.1	1.17	f	m	4+
ButmlkEF	9-88	0.0	sh	126	21.6	1.08	f	m	4+
ButmlkEF	9-88	0.0	sh	133	28.4	1.21	f	m	4+
ButmlkEF	9-88	0.0	sh	125	21.4	1.10	f	im	4+
ButmlkEF	9-88	0.0	sh	146	36.4	1.17	f	m	4+
ButmlkEF	9-88	0.0	sh	127	23.7	1.16	m	m	4+
ButmlkEF	9-88	0.0	sh	122	20.0	1.10	m	m	4+
ButmlkEF	9-88	0.0	sh	150	42.4	1.26	m	m	4+
ButmlkEF	9-88	0.0	sh	127	24.9	1.22	m	m	4+
ButmlkEF	9-88	0.0	sh	140	31.2	1.14	m	m	4+
ButmlkEF	9-88	0.0	sh	135	28.4	1.15	m	m	4+
ButmlkEF	9-88	0.0	sh	124	22.7	1.19	m	m	4+
ButmlkEF	9-88	0.0	sh	145	39.0	1.28	m	m	4+
ButmlkEF	9-88	0.0	sh	164	47.8	1.08	f	m	5+
ButmlkEF	9-88	0.0	sh	139	31.1	1.16	f	m	5+
ButmlkEF	9-88	0.0	sh	133	27.1	1.15	f	m	5+
ButmlkEF	9-88	0.0	sh	151	39.9	1.16	m	m	5+
ButmlkEF	9-88	0.0	sh	150	44.8	1.33	m	m	5+
ButmlkEF	9-88	0.0	sh	162	50.8	1.19	f	m	6+
ButmlkEF	9-88	0.0	sh	181	59.2	1.00	f	m	8+

22

stalled age 14
2282.6 gr

RM 10.2 Upper
 Ele. 5840

~~Little Bridge Creek~~
 20-mile South Fork
 Oct. 10, 1988
 THE DEPARTMENT OF GAME

*you already have
 this one*

Length	Wt.	Age	Sex	Mat.	Length	Wt.	Age	Sex	Mat.
55	1.7	0+	♂	EB	65	2.8	1+		
60	1.9	4+	-	-	70	3.4	1+		
55	1.6	1+		cutts	70	3.7	1+		
54	1.7	0+		EB - Bucktooth	70	3.2	1+		
53	1.5	1+			75	4.3	1+		
59	1.6	0+		EB	74	4.5	1+		
57	2.1	1+			74	4.2	1+		
59	2.4	0+		EB	71	3.7	1+		
59	2.2	0+		EB	70	4.0	1+		
60	2.3	1+			86	6.5	2+	F	im
61	2.1	1+			97	9.8	2+	F	im
61	2.2	1+			98	10.5	2+	F	im
64	2.5	0+		EB	96	10.1	2+	m	m
61	2.3	1+			100	10.6	2+	F	im
66	3.1	0+		cut	95	8.4	2+	F	im
68	2.6	1+			110	14.6	2+	m	m
65	2.6	1+			97	9.2	2+	F	im
62	2.3	1+			100	10.0	2+	F	im
65	2.8	1+			107	14.7	2+	m	m
67	3.1	1+			107	13.9	2+	m	m
64	2.8	1+			112	16.8	2+	m	m
63	2.4	1+			210	113.7	7+	AE	m
65	2.9	1+			108	16.4	1+	im	m EB
70	3.6	1+							
66	2.3	1+							
69	3.4	1+							
65	2.7	1+							

Crater Creek

9/15/88

Rainbow/Steelhead

Lgt	Wgt	Sex	Age	
150mm	47g	M ♂	3+	
180	70	M ♀	3+	
145	32	Im. ♀	3+	
156	44	Int. ♀	3+	
160	56	Int. ♀	4+	
158	52	M ♂	3+	
158	53	M ♂	3+	
187	83	M ♂	3+	stomach cont. yellow jackets
152	47	M ♂	3+	
140	34	M ♂	3+	
160	55	M ♂	3+	
138	30	M ♂	3+	
102	11	Im. ♂	1+	
93	6	Im. ♀	1+	
91	7	M ♂	1+	n=23
95	6	Im. ♀	1+	
93	9	Im. ♀	1+	
103	9	Im. ♂	1+	
128	22	M ♂	3+	
138	31	Int. ♀	3+	
149	36	M ♀	2+	
146	36	M ♀	4+	
133	24	Im ♀	2+	

Crater Creek

9/15/

Rainbow/Steelhead

Lgt.	Wgt	Sex	Age	
152mm	42g.	M ♀	3+	
136	26	Im. ♀	2+	
130	24	Int. ♀	3+	
129	25	M ♂	3+	
140	27	Int. ♀	3+	
120	20	M ♂	2+	
113	14	Im ♀	2+	
154	36	Im ♀	3+	
128	22	Im ♀	2+	
131	31	Int. ♀	3+	
121	20	M ♂	2+	
111	13	Im. ♀	2+	
124	20	M ♂	2+	n=23
131	21	Im ♀	3+	
90	5	Im ♂	1+	
116	20	M ♂	2+	
119	17	Int. ♀	3+	
115	15	Im. ♀	2+	
120	18	Im ♀	2+	
80	5	Im ♀	1+	
74	5	Im ♂	1+	
96	8	M ♂	1+	
100	13	Im ♂	2+	

PM 1.9

3260

Crater Creek

9/15/88

Rainbow / Steelhead

Lgt.	Wgt.	Sex	Age
116	14	Im F	2+
110	17	Im F	2+

m=2

Cutthroat

Lgt.	Wgt.	Sex	Age
225 mm	104g	M ♀	5+
179	74	M ♂	4+
157	43	M ♀	4+
130	22	Im ♂	2+

Cutthroat

Lgt.	Lgt.	Lgt.	
71 mm	70 mm	87 mm	} 245 grams cumulative total
74	77	85	
70	75	83	
73	73	92	
80	83	83	
77	85	85	
75	86	78	
71	78	89	
73	88	96	
70	73	93	
63	93	110	
80	84		
71	92		

Crater Creek

9/15/89

Rainbow / Steelhead YOY

Lgt	Wgt	Lgt
38 mm	30g	41 mm
33		37
35		35
30		44
40		46
35		41
43		39
42		43
51		40
37		36
37		45
38		38
37		30
40		45
37		38
42		37
40		
39		
41		
47		
44		
29		

$m = 38$

39.2 mm av
38 | 1490

Foggy Dew Ck.

9/15/88

Rainbow YOY

Lgt	Wgt
39	} trace
35	

Rainbow/Steelhead

141 _{mm}	37 _g	M ♂	3+
83	6	Im. ♀	1+
145	38	M ♂	2+
156	44	M ♂	3+
138	29	M ♂	3+
126	28	M ♂	3+
148	38	M ♂	3+
194	92	M ♂	6+
139	22	Im ♀	3+
143	38	M ♂	3+
143	37	M ♂	3+
146	33	M ♂	3+
144	34	M ♂	3+
147	35	Int. ♀	3+
131	36	Int. ♀	3+
127	26	M ♂	3+
125	21	Int. ♀	3+
118	18	Int ♀	3+
117	18	M ♂	2+

RM 3,4
3380' slw

- Foggy Dew Ck

9/15/88

Rainbow / Steelhead

Lgt	Wgt	Sex	Age
108mm	10g	Im M	2+
118	18	Im M	3+
110	16	Im F	3+
80	6	Im M	1+

Cutthroat (hybrid?)

Lgt.	Wgt.	Sex	Age
183	76	M ♂	—
134	35	Int. ♀	3+
185	76	M ♂	5+
130	26	Im. ♀	3+
143	30	Int. ♀	3+
110	9	Im. ♀	2+
162	50	M ♀	3+
162	50	M ♀	4+
109	18	Im. ♀	3+
115	24	Im. ♀	2+
119	18	M ♂	3+
110	16	M ♂	2+
111	12	Im. ♂	2+
107	11	Im. ♂	2+
91	8	Im. ♂	1+
92	7	Im. ♂	1+
95	9	Im. ♀	1+

Foggy Dew Ck.

9/15/88

Cutthroat

Lgt.	Wgt.	Sex	Age
87mm	6g	Im. ♂	1+
75	4	Im. ♀	1+
73	7	Im. ♂	1+
70	4	Im. ♀	1+
64	4	Im. ♂	1+
84	6	Im. ♀	1+
87	7	Im. ♀	1+
95	7	—	—
85	6	—	—
87	6	Im. ♀	1+
60	2	Im. ♀	1+
87	5	Im. ♀	1+
82	5	Im. ♂	1+
84	6	Im. ♀	1+
87	7	Im. ♀	1+

Total cutthroats = 32

RM 3.2
3730

20. Mile

9/14/88

Rainbows

Length	Wgt	Sex	Age
157	46	M ♀	6+
159	44	M ♀	7+
165	53	M ♂	6+
133	24	1m ♀	Inter 5+
127	25	1m ♀	4+
146	34	M ♂	5+
132	26	1m ♀	3+

51 49 48

0+

46 47 50

lengths

51 46 50

42 42 47

48 53 53

29 = 35 grams

53 44 52

53 49 56

59 56 49

46 41 46

46 44

48.9 mm w
29 | 1417

162 48 M ♀

6+

124 20 1m ♂

Inter 3+

137 26 M ♂

4+

120 18 M ♂

3+

121 20 M ♂

5+

127 22 1m ♀

4+

n=13

Length	Wgt	Sex	Age	
118	19	1m ♂	3+	N23
133	22	1m ♀ Inter	4+	
115	18	M ♂	3+	
119	18	1m ♀	3+	
110	16	1m ♂	3+	
116	16	1m ♂	3+	
112	17	1m ♂ Inter	3+	
96	12	1m ♀	2+	
103	11	1m ♂	3+	
79	5	1m ♂	1+	
120	18	1m ♀	3+	
87	6	1m ♂	1+	
82	5	1m ♀	1+	
111	15	1m ♂	3+	
83	5	1m ♂	1+	
77	5	1m ♀	1+	
62	3	1m ♀	1+	
83	4	1m ♀	1+	
90	6	1m ♀	1+	
117	16	1m ♂	3+	
83	6	1m ♀	1+	
112	14	1m ♀	3+	
99	10	1m ♀	2+	

360
20 Mile 9/14/82
Rainbows

Lengths + Tot weight	
116	} n=21 = 216 grams
106	
103	
98	
100	
104	
87	
106	
93	
105	
98	
96	
98	
103	
102	
86	
84	
90	
84	
97	
97	

South Fork Gold Cr
Rainbow

9/15/82

Length	Wgt	Sex	Age
130	78	M ♂	4+
207	106	M ♂	6+
168	60	M ♀	3+
154	42	Im ♂	2+
148	35	Im ♀	2+
168	52	Im ♀	3+
142	37	M ♂	3+
134	31	M ♂	3+
150	47	M ♂	3+
142	38	M ♂	3+
119	17	Int. ♀	3+
142	27	Im ♀	2+
127	19	Im ♂	2+
98	10	Im ♂	1+
62			
62			
56			
60			
63			
63			
177	68	M ♂	3+
138	32	Int. ♀	3+
156	48	Mat ♂	3+
137	28	M ♂	2+

m 6 = 14 grams

Y0Y

m = 18 days
b = Y-0Y

RM 3.8
2390' elev

South Fork Gold Creek 9/15/83

Lgt	Wgt	Sex	Age
135	33	M ♂	3+
125	23	M ♂	2+
150	42	M ♂	4+
107	11	Int. ♂	1+
113	17	Im ♀	3+
134	34	M ♂	2+
122	18	Im ♂	2+
140	34	M ♂	3+
133	24	Im ♀	2+
133	24	M ♂	2+
112	17	M ♂	1+
115	16	M ♂	1+
123	30	M ♂	2+
100	14	M ♂	1+
104	12	M ♂	1+
120	20	M ♂	2+
109	13	Im ♀	1+
98	10	Im ♂	1+
100	8	Im ♀	1+
95	11	Im ♂	1+
96	9	Im ♂	1+
88	7	Im ♂	1+
95	10	Im ♀	1+
95	8	Im ♀	1+

South Fork Gold Creek 9/15/88

Lgt	Wgt	Sex	Age
90	7	Im M	1+
91	7	Im F	1+

Sculpins	
Lgt	Wgt
90	31g
103	
88	

m = 26
2 pages

RM 1.2 Above impossible falls
3600' elevation

23
18
41

Andrews Creek 9/14/88				
Rainbows (cont)				
Length	Wgt	Sex	Age	Food
109	13	1m ♂	3+	
119	17	1m ♂ Inter	3+	
116	18	1m ♂	3+	
115	15	m ♂ Inter	3+	
110	13	1m ♀ Inter	4+	
113	14	1m ♂	3+	
115	15	1m ♂	3+	
133	18	M ♂	3+	
117	15	1m ♂	3+	m 41
131	28	1m ♀ Inter	4+	
131	26	1m ♀ Inter	4+	
120	19	1m ♀	3+	
143	32	1m ♀ Inter	4+	
125	24	1m ♀ Inter	3+	
176	61	M ♂	7+	
185	78	M ♂	7+	
173	60	M ♀	5+	
162	52	M ♀	5+	
138	28	M ♀	4+	
137	28	M ♀	?	
148	31	M ♀	4+	
81	5	1m ♀	1+	
93	8	1m ♀	3+	

Andrews Creek 9/14/88				
Rainbows (cont)				
Length	Wgt	Sex	Age	Food
83	6	1m ♂	1+	
75	4	1m ♂	1+	
70	4	1m ♀	1+	
92	6	1m ♂	2+	
86	5	1m ♀	1+	
97	7	1m ♀	2+	
60	2	1m ♀	1+	
101	14	1m ♂	2+	
92	10	1m ♂	2+	m 14
76	8	1m ♂	1+	
116	18	M ♂	3+	
105	16	1m ♀ Inter	3+	
98	13	1m ♂	2+	
100	12	1m ♂	2+	

not aged lengths only

9 fish = 58 grams

99
104
103
73
61
77
71
62
64

23
18
41

Andrews Creek 9/14/88
Rainbows (cont)

Length	Wgt	Sex	Age	Food
109	13	1m ♂	3+	
119	17	1m ♂ Inter	3+	
116	18	1m ♂	3+	
115	15	m ♂ Inter	3+	
110	13	1m ♀ Inter	4+	
113	14	1m ♂	3+	
115	15	1m ♂	3+	
133	18	M ♂	3+	
117	15	1m ♂	3+	m 41
131	22	1m ♀ Inter	4+	
131	26	1m ♀ Inter	4+	
120	19	1m ♀	3+	
143	32	1m ♀ Inter	4+	
125	24	1m ♀ Inter	3+	
176	61	M ♂	7+	
185	78	M ♂	7+	
173	60	M ♀	5+	
162	52	M ♀	5+	
138	28	M ♀	4+	
137	28	M ♀	?	
148	31	M ♀	4+	
81	5	1m ♀	1+	
93	8	1m ♀	3+	

Andrews Creek 9/14/88
Rainbows (cont)

Length	Wgt	Sex	Age	Food
83	6	1m ♂	1+	
75	4	1m ♂	1+	
70	4	1m ♀	1+	
92	6	1m ♂	2+	
86	5	1m ♀	1+	
97	7	1m ♀	2+	
60	2	1m ♀	1+	
101	14	1m ♂	2+	
92	10	1m ♂	2+	m 14
76	8	1m ♂	1+	
116	18	M ♂	3+	
105	16	1m ♀ Inter	3+	
98	13	1m ♂	2+	
100	12	1m ♂	2+	

not aged lengths only

99 }
104 }
103 }
73 } 9 fish = 58 grams
61 }
77 }
71 }
62 }
64 }

Andrews G

9/14/82

Cutthroat

Length	Wgt	Sex	Age	Age	Food
145	32	1m ♂	Inter	5+	
132	22	1m ♀		4+	

Rainbow (cutthroat hybrids?)

26	tr	—		0+	
30	tr	—		0+	
30	tr	—		0+	
33	tr	—		0+	
26	tr	—		0+	
27	tr	—		0+	
140	28	1m ♂		4+	Terrrestrial insects
178	78	M ♀	new + old eggs	6+	rotalact eggs - partly spawning?
137	28	M ♀		4+	
170	66	M ♀		7+	y-ox+
195	94	M ♂		8+	yellow jacks yellow jacks
115	13	M ♂		3+	
122	15	1m ♂		3+	
119	13	1m ♀	Inter	4+	
126	16	1m ♀		3+	
110	10	1m ♀		3+	
120	16	1m ♀	Inter	3+	n=18 6 yoy 12 others
130	20	1m ♀	Inter	4+	

3rd Sta	South FK	Beaver	9/13
Length	Wgt	Large Rainbow Sex	(Gout) Age
140	34	M ♀	3+
137	25	M ♀	4+
125	23	M ♂	3+
140	30	Im ♀	3+
132	26	M ♂	3+
108	17	Im ♀	2+
118	18	M ♂	2+
124	20	Im ♀	Inter 3+
114	12	M ♂	2+
105	14	Im ♀	2+
110	13	Im ♀	2+
113	17	Im ♂	3+
106	13	Im ♀	2+
107	13	Im ♀	2+
113	15	Im ♀	2+
108	15	M ♂	2+
102	10	Im ♀	2+
82	7	Im ♂	2+
74	6	Im ♂	1+
70	4	Im ♂	1+
65	4	Im ♂	1+
53	3	—	0+
97	10	Im ♀	4+
77	5	Im ♂	1+
81	4	Im ♀	1+
93	10	M ♂	3+

m = 26

Tainted

RM 0.0
2749' elev

3rd Station ^{South Fork} Beaver Cr 9/13/82
Junction Beaver & South Fork
Brook trout

Length	Wgt	Sex	Age	EBT
184	70	m ♀	—	EBT
120	18	1m ♀ inter.	?	EBT
105	12	m ♂	1+	EBT
125	20	1m ♀ inter.	2+	EBT
100	11	1m ♀	1+	EBT

5 Brook trout

Rainbow fry

Length	Notes
49	} 5 gr + 53mm next page
48	
43	
36	
47	
33	
39	
36	
42	

Large Rainbow

125	26	M ♂	3+	m=5
188	71	M ♀	4+	
134	27	M ♂	4+	
167	55	M ♂	5+	
150	45	M ♂	4+	

(more over)

2nd Station	South FK	Beaver	9/13
Length	Wgt	Sex	Age
145	32	M ♂	5+
131	28	M ♂	3+
140	30	M ♀	4+
176	75	M ♂	5+ ?
134	30	M ♂	3+
139	32	M ♂	3+
162	64	M ♀	5+
199	105	M ♂	5+
188	91	M ♂	7+
188	82	M ♀	gravid ?
125	25	M ♂	3+
166	63	M ♂	4+
139	31	c	
130	25	Im ♀	Inter 3+
128	25	M ♀	3+
165	51	M ♂	4+
137	31	M ♂	3+
117	20	M ♀	3+
111	16	1m ♀	Inter 3+
108	13	1m ♀	Inter 2+
139	31	M ♂	4+
130	26	1m ♂	3+
140	28	1m ♀	Inter 4+
100	9	1m ♂	2+

Stuffed
with yellow
jackets

m=23

(more over)

RM 2.6
4450' illuok

2nd Station South FK Beaver 9/13/88
Brook Trout

Y-O-Y Lengths (mm)

54	51	45	50	56	45
62	46	56	53	51	
47	45	42	48	37	

16 = 23 grams

Length	Wgt	Sex	Age
93	8	Im ♀	2+
108	16	M ♂	2+
128	23	Im ♀ Inter	2+
110	12	Im ♀	2+
140	36	M ♀ gravid	3+
89	8	Im ♀	2+
109	14	Im ♂	2+
122	22	M ♂	3+
141	35	M ♂	3+
125	23	M ♂	3+
118	19	M ♂	3+
129	22	Im ♂	3+
96	8	Int. ♀	2+
83	7	Im ♂	2+
133	27	M ♂	3+
73	6		
117	15		

Brook trout

2nd Station South FK Beaver 9/13/88
Brook trout

Length

112	119
123	105
108	112
113	101
114	97
123	92
115	110
109	98
106	101
108	106
104	93
108	92
109	105
113	111
120	101
77	95
104	82
104	
110	
106	
111	
92	
125	
99	

41 EBT not aged

588 grams

RM 5.2
 Elev 5105'

1st Station Beaver Creek
 Upper Middle Forks 9/13/88

EBT	Length	Wgt	Sex	Age	Stomach empty
	195	92	M ♂	3+	
	163	64	M ♀	?	
	118	20	1m ♀ Inter	3+	
	118	18	M ♂	3+	
	119	20	M ♂	3+	
	118	21	1m ♀ Inter	3+	
	101	11	1m ♀	2+	
	112	16	M ♂	2+	
	103	11	1m ♀	2+	
	100	12	m ♂	2+	
	92	8	1m ♂	2+	
	103	12	1m ♀	2+	
	91	7	1m ♀	2+	
	101	10	1m ♀	2+	
	71	4.5	1m ♀	1+	
	79	5.0	1m ♂	1+	
	76	6.0	1m ♂	1+	
	74	4.5	1m ♂	1+	
	69	4.5	1m ♂	1+	
	72	4.0	1m ?	1+	
	30	TV		0	

Tot 21

Brook Trout

SECTIONING

11.0, the distance out
 under, I read 16.7, the
 at right

Slope Stake

8	9	Chlor	Fill
1	1.2	1.4	0
6	2.7	2.9	1
11	4.2	4.4	2
16	5.7	5.9	3
21	7.2	7.4	4
26	8.7	8.9	5
31	10.2	10.4	6
36	11.7	11.9	7
41	13.2	13.4	8
46	14.7	14.9	9
51	16.2	16.4	10
56	17.7	17.9	11
61	19.2	19.4	12
66	20.7	20.9	13
71	22.2	22.4	14
76	23.7	23.9	15
81	25.2	25.4	16
86	26.7	26.9	17
91	28.2	28.4	18
96	29.7	29.9	19
101	31.2	31.4	20
106	32.7	32.9	21
111	34.2	34.4	22
116	35.7	35.9	23
121	37.2	37.4	24
126	38.7	38.9	25
131	40.2	40.4	26
136	41.7	41.9	27
141	43.2	43.4	28
146	44.7	44.9	29
151	46.2	46.4	30
156	47.7	47.9	31
161	49.2	49.4	32
166	50.7	50.9	33
171	52.2	52.4	34
176	53.7	53.9	35
181	55.2	55.4	36
186	56.7	56.9	37
191	58.2	58.4	38
196	59.7	59.9	39
201	61.2	61.4	40

Lower LeBridge Creek

RM 0.0
Elev. 2130

STATE OF WASHINGTON
Oct. 10, 1908
THE DEPARTMENT OF GAME

Length	Wt	Age	Sex	Mut.	Length	Wt.	Age	Sex	Mut.
66 RB	3.4	0+			91 CH	16.0		← Chinook	
60	2.4	0+			88 RB	7.9	1+	m	im
74	5.1	0+			95 RB	10.2	2+	m	im
56.	2.0	0+			103 RB	13.4	1+	m	im
62	2.8	0+			107 RB	19.2	2+	F	im
60	2.6	0+			142 RB	33.5	2+	m	im
72	4.3	0+			137 RB	28.4	2+	m	im
61	2.5	0+			130 RB	25.6	2+	m	im
68	3.5	0+			145 RB	37.4	1+	m	im
68	3.8	0+			145 RB	37.2	2+	m	m
60	2.7	0+			157 RB	41.0	1+	F	im
64	3.0	0+			61. RB	2.7	0+		
59	2.6				64.	3.1	0+		
68	3.6				56	2.1	0+		
77	4.6				67	3.8	0+		
63	2.9				67	3.8	0+		
65	3.1				75.	5.1	0+		
60	2.6				81.	5.9	0+		
59	2.5				74.	4.9	0+		
63	3.1				57.	2.2	0+		
66	3.1				52	1.4	0+		
86 CH	8.1	0+		← Chinook	57.	2.3	0+		
57 RB	2.5	0+		"	73.	4.6	0+		
81 CH	6.8	0+		"	82 CH	7.4	0+		Chinook
90 CH	6.2	0+		"	70 CH	4.3	0+		Chinook
92 CH	9.5	0+		"	77 CH	6.2	0+		Chinook
85 CH	7.3	0+		"	65 CH	3.5	0+		Chinook

Lower LeBridge Creek

STATE OF WASHINGTON

Oct. 10, 1909

THE DEPARTMENT OF GAME

Length	Wt.	Age	Sex	Mat.	Length	Wt.	Age	Sex	Mat.
114 RB	17.3	2+	m	im					
100	10.7	1+	F	im					
110	15.9	1+	F	im					
114	18.3	2+	m	m					
62	2.8	0+	-	-					
73	4.2	0+							
57	2.3	0+							
65	3.4	0+							
66	3.5	0+							
56	2.2	0+							
81 CH	6.5	0+							
78 CH	5.8	0+							
81 CH	6.7	0+							
95 RB	10.7	1+	F	im					
101 RB	12.2	1+	F	im					
87 RB	8.5	1+	F	im					
215 Res.	96.4	-	F	im					
170	47.2	-	F	im					
192	65.3	-	m	im					
193	75.7	-	m	im					
202	80.1	-	m	im					
224	110.9	-	F	im					
232	125.6	-	F	im					
258	172.0	-	m	im					

Scalpin 33 / 1.34.9 gr.

feeding on yellow jackets & grasshopper

resid steel 676.8 g
or 705 g/m or
about half of bones.