Nevada Department Of Fish And Game

GLEN K. GRIFFITH
DIRECTOR

MIKE O'CALLAGHAN
GOVERNOR

1100 VALLEY ROAD • P.O. BOX 10678 • RENO, NEVADA 89510 • TELEPHONE (702) 784-6219

November 10, 1975

Dr. Robert Behnke
Colorado State University
Fort Collins, Colorado 80523

Dear Dr. Behnke:

In reference to your letter of October 29, 1975 on Mt. Wheeler cutthroat, any up-date report you have would be appreciated for our office file.

As far as Hendry's Creek is concerned we did treat this stream with ANAMYASIN A in the summer of 1973 and 1974. However, we have not, as yet, been back into this area to check for downstream movement of the pure strain of cutthroat. We plan to check this stream system either this month or next.

I have hiked the headwaters area of Hendry's Creek and have found no apparent barriers to explain the purity in that area. However, from the condition of the road in that area I believe it would have been extremely difficult to get fish much above the natural barrier. In most cases when hatchery trout, especially rainbow, are stocked they tend to drift down stream, at least for the first few days. In the case of the headwaters of Hendry's Creek there were probably very few rainbow stocked there and those that were probably were displaced by the native "cuts" or due to their being unaccustomed to the swift water conditions the majority were moved down stream, at least to a point below the natural barrier. These are the best explanations I have at the moment.

Our recrods indicate Pine Creek trout were stocked in Weaver Creek, no success; Goshute Creek, successful; Mill Creek, successful; Hampton Creek, successful; Willard and Williams, both possible success.

I believe this species of trout may also be found in the headwaters of the following creeks in the Snake Mountain Range: Baker, Big Wash, Deep Canyon, Lehman, Nigger, Silver, Snake, Strawberry, Smith and Deadman Creeks. There is also a recorded plant into Muncy Creek, in the Schell Creek Range, which may have been this species of cutthroat. These streams will all be checked as time permits.

Regards,

Wm. Leroy McLelland

Wm. Leroy McLelland
Fishery Biologist
Ely Office
P.O. Box 1109
Nev. Dept. of Fish & Game
Ely, Nevada 89301

WLM:gp

NEVADA
DEPARTMENT OF FISH AND GAME
P.O. Box 10678
RENO, NEVADA 89510

Nevada Department of Fish & Game
P. O. Box 1109
Ely, Nevada 89301

Protect Wildlife . . .
Conservation Is Everybody's Job

ELY, NV
NOV 11
PM
1975
89301

Dr. Robert Behnke

Colorado State University

Fort Collins, Colorado 80523

ALWAYS ASK PERMISSION
TO ENTER PRIVATE LAND

Help Prevent Littering

2/2

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES WESTSLOPE LOCALITY POORMAN CRK.

COLLECTED BY _____ DATE _____

Cat. # _____ Measurements by CONVERSIONS DATE _____

Specimen # 085

	009	010	011	012	013	014	015	016
Total L.								
Standard L.	155	144	133	124	124	133	127	124
Body D								
Head L	252	264	265	266	246	265	260	250
Oroit L	72	69	76	72	75	76	71	73
Upper Jaw L	135	146	136	137	134	144	142	133
Dors. Orig. to Snt. tip	510	500	492	508	493	515	496	492
Dorsal fin basal L								
Dorsal fin depressed L	239	222	225	234	239	227	228	234
Adip. fin depressed L	090	097	076	089	082	091	087	081
Caudal peduncle D								
Caudal peduncle L								

x

2/2

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES WESTSLOPE CUTTHROAT LOCALITY POORMAN CRK. → BLACKFOOT R. → CLARK FORK LEWIS & CLARK CO. MONTANA T14N R9W

COLLECTED BY HAUGEN DATE 7-27-72

Cat. # 36 Measurements by ROSCOE DATE 8-73

Specimen #	9	10	11	12	13	14	15	16
Total L.	187	171	157	149	160	157	148	147
Standard L.	155	144	132	124	134	132	127	124
Body D								
Head L	39	38	35	33	33	35	33	31
Oroit L	12	10	10	9	10	10	9	9
Upper Jaw L	21	21	18	17	18	19	18	17
Dors. Orig. to Snt. tip	79	72	65	63	66	68	63	61
Dorsal fin basal L								
Dorsal fin depressed L	37	32	31	29	32	30	29	29
Adip. fin depressed L	14	14	10	11	11	12	11	10
Caudal peduncle D	18	16	15	14	14	14	13	13
Caudal peduncle L	27	24	25	23	25	25	23	23
Vertebrae								
1st Arch gillrakers (up)	008	008	009	007	008	007	007	007
(lower)	012	012	011	011	011	010	012	011
(total)	020	020	020	018	019	017	019	018
Branchiostegal rays right	011	012	010	011	011	011	011	010
(left)	012	012	010	011	011	011	011	011
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line	039	042	041	043	040	043	041	043
Scales 2 rows above lat.	156	157	154	158	164	166	154	155
Pelvic fin rays	9	9	9	9	9	9	9	9
Pyloric caeca	037	041	030	030	034	036	039	041
Dentition	010	004	002	002	005	008	004	004

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

1/2

SPECIES WESTSLOPE LOCALITY ROSS CRK

COLLECTED BY _____ DATE _____

Cat. # _____ Measurements by CONVERSIONS DATE _____

Specimen # 086

	001	002	003	004	005	006	007	008
Total L.								
Standard L.	211	205	206	198	180	175	178	176
Body D								
Head L	251	283	242	237	289	251	258	273
Oroit L	66	78	63	66	78	60	73	62
Upper Jaw L	147	171	136	131	167	143	152	170
Dors. Orig. to Snt. tip	483	502	476	495	500	486	478	500
Dorsal fin basal L								
Dorsal fin depressed L	237	229	252	222	256	246	253	227
Adip. fin depressed L	095	088	083	086	100	097	096	102
Caudal peduncle D	114	112	102	106	117	114	107	108
Caudal peduncle L	156	161	175	167	167	171	163	159
Vertebrae								
1st Arch gillrakers (up)	007	008	006	006	008	007	009	007
(lower)	011	012	011	012	010	012	012	012
(total)	018	020	017	018	018	019	021	019
Branchiostegal rays right	011	011	010	010	011	011	010	010
(left)	011	011	009	010	011	012	011	010
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line	039	041	040	040	042	041	038	042
Scales 2 rows above lat.	176	162	169	169	164	157	169	170
Pelvic fin rays	9	9	9	8	9	9	9	9
Pyloric caeca	042	039	029	037	039	035	039	035
Dentition	013	018	010	008	016	006	016	010

1/2

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES WESTSLOPE CUTTHROAT LOCALITY ROSS CRK. → BLACKFOOT R. → CLARK FORK MISSOULA CO. MONTANA LOLO N.F. T14N R17W

COLLECTED BY HAUGEN DATE ?

Cat. # 22 Measurements by ROSCOE DATE 8-73

Specimen #

	1	2	3	4	5	6	7	8
Total L.	252	243	244	233	215	210	212	210
Standard L.	211	205	206	198	180	175	178	176
Body D								
Head L	53	58	50	47	52	44	46	48
Oroit L	14	16	13	13	14	12	13	12
Upper Jaw L	31	35	28	26	30	25	27	30
Dors. Orig. to Snt. tip	102	103	98	98	90	85	85	88
Dorsal fin basal L								
Dorsal fin depressed L	50	47	52	44	46	43	45	40
Adip. fin depressed L	20	18	17	17	18	17	17	18
Caudal peduncle D	24	23	21	21	21	20	19	19
Caudal peduncle L	33	33	36	33	30	30	29	28

VERTEBRAE	N = 10	$\bar{X}$ = 60.8	59 / 60 / 61 / 62 1 / 1 / 7 / 1
GILL RAKERS	N = 10	$\bar{X}$ = 18.8	17 / 18 / 19 / 20 / 21 1 / 4 / 2 / 2 / 1
SCALES ABOVE LAT. L.	N = 10	$\bar{X}$ = 40.4	38 - 42
SCALES 2 ROWS ABOVE LAT. L.	N = 10	$\bar{X}$ = 165.1	150 - 176
PELVIC FIN RAYS	N = 10	$\bar{X}$ = 8.9	8 / 9 1 / 9
PYLORIC CAECA	N = 9	$\bar{X}$ = 36.5	29 - 42
DENTITION	N = 10	$\bar{X}$ = 13.1	6 - 24

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

2/2

SPECIES WESTSLOPE LOCALITY ROSS CRK

COLLECTED BY _____ DATE _____

Cat. # _____ Measurements by CONVERSIONS DATE _____

Specimen # 086

	009	010						
Total L.								
Standard L.	171	172						
Body D								
Head L	251	267						
Oroit L	70	76						
Upper Jaw L	146	163						
Dors. Orig. to Snt. tip	491	506						
Dorsal fin basal L								
Dorsal fin depressed L	246	262						
Adip. fin depressed L	111	087						
Caudal peduncle D	117	110						
Caudal peduncle L	170	163						
Vertebrae								
1st Arch gillrakers (up)	007	007						
(lower)	013	011						
(total)	020	018						
Branchiostegal rays right	011	011						
(left)	012	011						
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line	040	041						
Scales 2 rows above lat.	165	150						
Pelvic fin rays	9	9						
Pyloric caeca	036	035						
Dentition	024	010						

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES WESTSLOPE CUTTHROAT LOCALITY ROSS CRK → BLACKFOOT R. → CLARK FORK MISSOULA CO. MONTANA LOLO N.F. T14N R17W

COLLECTED BY HAUGEN DATE

Cat. # 22 Measurements by ROSCOE DATE 8-73

Specimen #

	9	10						
Total L.	204	205						
Standard L.	171	172						
Body D								
Head L	43	46						
Oroit L	12	13						
Upper Jaw L	25	28						
Dors. Orig. to Snt. tip	84	87						
Dorsal fin basal L								
Dorsal fin depressed L	42	45						
Adip. fin depressed L	19	15						
Caudal peduncle D	20	19						
Caudal peduncle L	29	28						

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

1/2

SPECIES West Slope Cutthroat LOCALITY Poorman Crk → Blackfoot R → Clark fork Lewis + Clark Co. Montana T1Hn R9W

COLLECTED BY Haugen DATE 7-27-72

Cat. # 36 Measurements by Roscoe DATE 8-73

Specimen #

	1	2	3	4	5	6	7	8
Total L.	208	238	207	191	198	184	199	173
Standard L.	177	200	174	161	167	155	169	144
Body D	–	–	–	–	–	–	–	–
Head L	42	49	45	43	43	39	44	37
Oroit L	11	12	12	11	11	11	11	11
Upper Jaw L	23	27	25	24	24	20	22	20
Dors. Orig. to Snt. tip	87	97	88	80	86	76	84	69
Dorsal fin basal L	–	–	–	–	–	–	–	–
Dorsal fin depressed L	39	48	41	38	38	37	41	35
Adip. fin depressed L	14	17	12	14	16	12	14	11
Caudal peduncle D	18	21	18	17	18	16	18	16
Caudal peduncle L	33	33	29	27	30	28	30	27
Vertebrae	–	–	–	–	–	–	–	–
1st Arch gillrakers (up)	007	010	008	008	008	007	008	008
(lower)	012	014	014	012	012	013	012	013
(total)	019	024	021	020	020	020	020	021
Branchiostegal rays right	011	011	010	010	010	011	011	011
(left)	011	011	010	012	010	011	011	011
Dorsal rays	–	–	–	–	–	–	–	–
Anal rays	–	–	–	–	–	–	–	–
Pectoral fin rays	–	–	–	–	–	–	–	–
Scales in lateral line	042	043	042	043	046	043	044	042
Scales above lateral line	175	173	159	172	175	163	166	157
Scales 2 rows above lat.	–	–	–	–	–	–	–	–
Pelvic fin rays	043	043	034	039	036	043	030	048
Pyloric caeca	002	011	002	009	003	003	007	007
Dentition								

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES Westslope LOCALITY Roarman Crk

COLLECTED BY _____ DATE _____

Cat. # _____ Measurements by Conversions DATE _____

Specimen # 085

	1	2	3	4	5	6	7	8
Total L.								
Standard L.								
Body D								
Head L	237	245	259	267	257	252	260	257
Oroit L								
Upper Jaw L	130	135	144	149	144	129	130	139
Dors. Orig. to Snt. tip	492	485	506	497	515	490	497	479
Dorsal fin basal L								
Dorsal fin depressed L	220	240	236	236	228	239	243	243
Adip. fin depressed L	079	085	069	087	096	077	083	076
Caudal peduncle D	102	105	103	106	108	103	107	111
Caudal peduncle L	186	165	167	168	180	181	178	188
Vertebrae								
1st Arch gillrakers (up)								
(lower)								
(total)								
Branchiostegal rays right								
(left)								
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line								
Scales 2 rows above lat.								
Pelvic fin rays								
Pyloric caeca								
Dentition								

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES Westslope Cutthroat LOCALITY Poorman Crk → Blackfoot R → Clark Fork Lewis + Clark Co Montana T14N R9W

COLLECTED BY Haugen DATE 7-27-72

Cat. # 36 Measurements by Roscoe DATE 8-73

Specimen #

	9	10	11	12	13	14	15	16
Total L.	187	171	157	149	160	157	148	147
Standard L.	155	144	132	124	134	132	127	124
Body D								
Head L	39	38	35	33	33	35	33	31
Oroit L	12	10	10	9	10	10	9	9
Upper Jaw L	21	21	18	17	18	19	18	17
Dors. Orig. to Snt. tip	79	72	65	63	66	68	63	61
Dorsal fin basal L								
Dorsal fin depressed L	37	32	31	29	32	30	29	29
Adip. fin depressed L	14	14	10	11	11	12	11	10
Caudal peduncle D	18	16	15	14	14	14	13	13
Caudal peduncle L	27	24	25	23	25	25	23	23
Vertebrae								
1st Arch gillrakers (up)	008	008	009	007	008	007	007	007
(lower)	012	012	011	011	011	010	012	011
(total)	020	020	020	018	019	017	019	018
Branchiostegal rays right	011	012	010	011	011	011	011	010
(left)	012	012	010	011	011	011	011	011
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line	039	042	041	043	040	043	041	043
Scales above lateral line	156	157	154	158	164	166	154	155
Scales 2 rows above lat.								
Pelvic fin rays	037	041	030	030	034	036	039	041
Pyloric caeca	010	004	002	002	005	008	004	004
Dentition								

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES Westslope LOCALITY Poorman Crk

COLLECTED BY _____ DATE _____

Cat. # _____ Measurements by Conversions DATE _____

Specimen #

	9	10	11	12	13	14	15	16
Total L.								
Standard L.								
Body D								
Head L	252	264	265	266	246	265	260	250
Oroit L								
Upper Jaw L	135	146	136	137	134	144	142	137
Dors. Orig. to Snt. tip	510	500	492	508	493	515	496	492
Dorsal fin basal L								
Dorsal fin depressed L	239	222	235	234	239	227	228	234
Adip. fin depressed L	90	97	76	89	82	91	87	81
Caudal peduncle D	116	111	114	113	104	106	102	105
Caudal peduncle L	174	167	189	184	187	189	181	185
Vertebrae								
1st Arch gillrakers (up)								
(lower)								
(total)								
Branchiostegal rays right								
(left)								
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line								
Scales 2 rows above lat.								
Pelvic fin rays								
Pyloric caeca								
Dentition								

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

1/2

SPECIES Westslope Cutthroat LOCALITY Ross Crk → Blackfoot R → Clark Fork Missoula Co Montana Lobo N. F T14N R17W

COLLECTED BY Haugen DATE ?

Cat. # 22 Measurements by Roscoe DATE 8-73

Specimen #

	1	2	3	4	5	6	7	8
Total L.	252	243	244	233	215	210	212	210
Standard L.	211	205	206	198	180	175	178	176
Body D								
Head L	53	58	50	47	52	44	46	48
Oroit L	14	16	13	13	14	12	13	12
Upper Jaw L	31	35	28	26	30	25	27	30
Dors. Orig. to Snt. tip	102	103	98	98	90	85	85	88
Dorsal fin basal L								
Dorsal fin depressed L	50	47	52	44	46	43	45	40
Adip. fin depressed L	20	18	17	17	18	17	17	18
Caudal peduncle D	24	23	21	21	21	20	19	19
Caudal peduncle L	33	33	36	33	30	30	29	28
Vertebrae								
1st Arch gillrakers (up)	007	008	006	006	008	007	009	007
(lower)	011	012	011	012	010	012	012	012
(total)	018	020	017	018	018	019	021	019
Branchiostegal rays right	011	011	010	010	011	011	010	010
(left)	011	011	009	010	011	012	011	010
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line	039	041	040	040	042	041	038	042
Scales above lateral line	176	162	169	169	164	157	169	170
Scales 2 rows above lat.								
Pelvic fin rays	042	039	029	037	039	035	039	035
Pyloric caeca	013	018	010	008	016	006	016	010
Dentition								

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

1/2

SPECIES Westslope LOCALITY Ross Crk

COLLECTED BY DATE

Cat. # Measurements by Conversions DATE

Specimen #

	1	2	3	4	5	6	7	8
Total L.								
Standard L.								
Body D								
Head L	251	283	243	237	289	251	258	273
Oroit L								
Upper Jaw L	147	171	136	131	167	143	152	170
Dors. Orig. to Snt. tip	483	502	476	495	500	486	478	500
Dorsal fin basal L								
Dorsal fin depressed L	237	229	252	222	256	246	253	287
Adip. fin depressed L	095	088	083	086	100	097	096	102
Caudal peduncle D	114	112	102	106	117	114	107	108
Caudal peduncle L	156	161	175	167	167	171	163	159
Vertebrae								
1st Arch gillrakers (up)								
(lower)								
(total)								
Branchiostegal rays right								
(left)								
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line								
Scales 2 rows above lat.								
Pelvic fin rays								
Pyloric caeca								
Dentition								

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES Westslope Cutthroat LOCALITY Ross Crk → Blackfoot R → Clark Fork Missoula Co mountain Idaho N.F. T14N R17W

COLLECTED BY Haugen DATE

Cat. # 22 Measurements by Roscoe DATE 8-73

Specimen #

	9	10						
Total L.	204	205						
Standard L.	171	172						
Body D								
Head L	43	46						
Oroit L	12	13						
Upper Jaw L	25	28						
Dors. Orig. to Snt. tip	84	87						
Dorsal fin basal L								
Dorsal fin depressed L	42	45						
Adip. fin depressed L	19	15						
Caudal peduncle D	20	19						
Caudal peduncle L	29	28						
Vertebrae								
1st Arch gillrakers (up)	007	007						
(lower)	013	011						
(total)	020	018						
Branchiostegal rays right	011	011						
(left)	112	011						
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line	040	041						
Scales 2 rows above lat.	165	150						
Pelvic fin rays								
Pyloric caeca	036	035						
Dentition	024	010						

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

2/2

SPECIES Westslope LOCALITY Ross Crk

COLLECTED BY _____ DATE _____

Cat. # _____ Measurements by Conversions DATE _____

Specimen #

	086	009	010						
Total L.									
Standard L.									
Body D									
Head L		251	267						
Oroit L									
Upper Jaw L		146	163						
Dors. Orig. to Snt. tip		491	506						
Dorsal fin basal L									
Dorsal fin depressed L		246	262						
Adip. fin depressed L		111	087						
Caudal peduncle D		117	110						
Caudal peduncle L		170	163						
Vertebrae									
1st Arch gillrakers (up)									
(lower)									
(total)									
Branchiostegal rays right									
(left)									
Dorsal rays									
Anal rays									
Pectoral fin rays									
Scales in lateral line									
Scales above lateral line									
Scales 2 rows above lat.									
Pelvic fin rays									
Pyloric caeca									
Dentition									

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES Salmo Clarki clarki LOCALITY Makaha Pt. Stream Hawkin island alaska

COLLECTED BY Needham + allin DATE 8-3-57

Cat. # Measurements by R J Behnke DATE 10-19-57

Specimen #

	1	2	3	4	5	6	7
Total L.							
Standard L.	191	249	194	180	174	181	191
Body D	199	196	200	194	224	193	178
Head L	235	257	252	250	241	243	230
Oroit L	63	56	57	61	57	61	63
Upper Jaw L	131	156	134	139	126	138	131
Dors. Orig. to Snt. tip	476	493	489	488	465	480	486
Dorsal fin basal L	105	104	108	111	115	121	110
Dorsal fin depressed L	157	160	170	183	184	183	167
Adip. fin depressed L	63	64	67	72	75	72	73
Caudal peduncle D	105	88	88	83	86	88	84
Caudal peduncle L	162	148	160	172	155	171	167
Vertebrae							
1st Arch gillrakers (up)	7	8	7	7	6	7	8
(lower)	11	12	11	12	12	11	10
(total)	18	20	18	18	18	18	18
Branchiostegal rays right	12	11	11	11	11	10	11
(left)	12	12	12	11	12	11	12
Dorsal rays							
Anal rays							
Pectoral fin rays							
Scales in lateral line	121	121					
Scales above lateral line	32	31	34	32	33	32	30
Scales 2 rows above lat.	140	149	163	170	176	150	164
Pelvic fin rays	9	9	9	9	10	10	10
Pyloric caeca	30	50	35	41	42	43	46
Dentition	16	9	14	12	10	13	36

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

Page 2

SPECIES S.c.c. LOCALITY

COLLECTED BY DATE

Cat. # Measurements by DATE

Specimen #

	8	9	10	11	12	13	14	16
Total L.								
Standard L.	160	179	165	124	128	146	169	
Body D	200	145	206	212	211	226	219	
Head L	250	251	236	253	230	253	248	
Oroit L	69	67	61	63	70	68	65	
Upper Jaw L	144	134	127	138	133	150	124	
Dors. Orig. to Snt. tip	488	497	485	485	507	527	479	
Dorsal fin basal L	113	100	109	126	117	109	118	
Dorsal fin depressed L	181	162	188	184	195	171	183	
Adip. fin depressed L	56	61	73	63	70	75	77	
Caudal peduncle D	88	89	85	86	94	89	83	
Caudal peduncle L	163	173	170	161	156	157	165	
Vertebrae								
1st Arch gillrakers (up)	8	6	8	7	7	7	7	
(lower)	13	11	11	11	11	10	12	
(total)	21	17	19	18	18	17	19	
Branchiostegal rays right	10	11	10	11	10	11	11	
(left)	11	11	12	12	10	12	12	
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line	32	35	30	31	32	31	33	
Scales 2 rows above lat.	154	147	145	150	158	162	157	
Pelvic fin rays	9	9	9	10	9	9	10	
Pyloric caeca	47	49	46	33	35	42	38	
Dentition	6	7	8	12	11	16	8	

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

Page 3

SPECIES S. cc. LOCALITY

COLLECTED BY DATE

Cat. # Measurements by DATE

Specimen #

	15	16	17	18	19	20	21	22
Total L.								
Standard L.	231	335	358	320	288	212	269	293
Body D	229	215	226	218	246	245	230	256
Head L	220	241	243	228	236	231	237	235
Oroit L	56	48	50	47	49	57	56	55
Upper Jaw L	121	119	134	131	125	127	134	136
Dors. Orig. to Snt. tip	462	492	491	452	493	496	497	508
Dorsal fin basal L	138	104	106	112	118	94	96	109
Dorsal fin depressed L	186	158	153	153	170	153	157	160
Adip. fin depressed L	69	51	50	59	59	66	52	65
Caudal peduncle D	95	95	92	94	94	89	89	102
Caudal peduncle L	147	155	148	159	160	165	163	160
Vertebrae								
1st Arch gillrakers (up)	6	6	7	7	6	6	7	6
(lower)	11	11	13	13	11	11	11	10
(total)	17	17	20	20	17	17	18	16
Branchiostegal rays right	10	10	10	10	11	11	11	11
(left)	11	10	11	11	12	11	10	11
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line	156	149	147	152	160	164	159	
Scales above lateral line	33	32	34	32	33	32	32	35
Scales 2 rows above lat.	138	147	161	168	128	148	162	156
Pelvic fin rays	9	9	9	9	9	9	9	9
Pyloric caeca	42	38	37	31	49	48	32	39
Dentition	10	8	10	13	9	10	14	13

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES S. cc. LOCALITY

COLLECTED BY DATE

Cat. # Measurements by DATE

Specimen #

	23	24	25	26	27	28	29	30
Total L.								
Standard L.	293	274	251	259	244	282	216	244
Body D	239	215	231	232	233	230	231	237
Head L	229	229	247	243	237	234	217	233
Oroit L	51	51	52	54	53	50	51	53
Upper Jaw L	119	131	139	135	123	124	120	119
Dors. Orig. to Snt. tip	488	495	505	521	496	492	457	470
Dorsal fin basal L	109	120	111	104	110	110	102	131
Dorsal fin depressed L	160	171	159	166	160	163	143	176
Adip. fin depressed L	55	55	64	66	61	53	55	70
Caudal peduncle D	95	84	88	92	98	92	88	86
Caudal peduncle L	171	153	167	179	163	170	171	160
Vertebrae								
1st Arch gillrakers (up)	7	6	6	6	6	7	6	8
(lower)	12	11	12	11	11	11	10	11
(total)	19	17	18	17	17	18	16	19
Branchiostegal rays right	10	11	11	10	11	11	11	11
(left)	11	12	11	11	12	11	12	11
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line	34	32	32	34	34	33	35	33
Scales 2 rows above lat.	149	147	152	160	164	159	162	136
Pelvic fin rays	9	9	10	9	10	10	9	9
Pyloric caeca	38	40	41	40	42	43	35	34
Dentition	4	16	9	12	10	11	7	9

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES S. c. utah LOCALITY Lake Alice

COLLECTED BY Miller - Versluys DATE Aug. 23-77

Cat. # Measurements by P. Gale DATE 11/24/77

Specimen #

	1	2	3	4	5	6	7	8
Total L.	263	253	278	278	282	288	255	277
Standard L.	218	216	228	231	235	245	211	226
Body D	59	52	51	55	56	64	52	58
Head L	58	51	63	64	67	76	55	69
Orbit L	19	12	17	15	16	17	14	16
Upper Jaw L	32	29	36	37	38	49	32	42
Dors. Orig. to Snt. tip	110	108	117	115	111	131	108	118
Dorsal fin basal L	32	30	33	28	28	30	31	27
Dorsal fin depressed L	51	47	54	49	46	48	48	45
Adip. fin depressed L	18	19	20	21	18	18	20	17
Caudal peduncle D	24	23	24	25	24	26	22	25
Caudal peduncle L	33	36	35	35	36	39	32	37
Vertebrae								
1st Arch gillrakers (up)	7	7	7	7	6	7	6	6
(lower)	12	13	11	11	11	11	13	12
(total)	19	20	18	18	17	18	19	18
Branchiostegal rays right	10	10	11	10	10	10	12	10
(left)	11	11	11	11	11	12	12	12
Dorsal rays	12	12	12	12	12	12	12	12
Anal rays	12	11	12	12	12	12	12	12
Pectoral fin rays	15	15	15	15	14	15	16	15
Scales in lateral line								
Scales above lateral line	38	35	34	38	37	38	37	37
Scales 2 rows above lat.	159	149	150	152	153	159	155	149
Pelvic fin rays	9	10	9	10	9	9	9	9
Pyloric caeca	43	47	55	54	49	49	56	
Dentition	9	11	2	4	9	13	1	10

Fish # 8 of 15 : 12.5 inches long
45 pyloric caeca

N = 16

	17	18	19	20	
rakers	1	7	6	3	17-20 (18.7)

Scales above 35-40 (37.2)
ser. 145-171 (157.0)

caeca 48-57 (47.1)

teeth 1 w/o
16 w/ 1-17 (8.6)

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES _____ LOCALITY Lake Alice

COLLECTED BY _____ DATE Aug 23-77

Cat. # _____ Measurements by P. Gale DATE 11/24/77

Specimen #	9	10	11	12	13	14	15	16
Total L.	278	291	239	271	212	282	308	249
Standard L.	240	245	199	228	188	236	258	226
Body D	63	57	55	55	45	63	68	50
Head L.	67	66	49	66	47	58	70	55
Orbit L	15	17	12	16	12	15	16	14
Upper Jaw L	40	38	28	42	26	36	41	31
Dors. Orig. to Snt. tip	120	123	102	117	92	124	131	106
Dorsal fin basal L	28	27	29	30	22	33	33	30
Dorsal fin depressed L	46	55	41	48	38	55	55	47
Adip. fin depressed L	21	23	19	17	18	21	22	18
Caudal peduncle D	26	27	22	25	20	25	28	24
Caudal peduncle L	37	38	33	38	31	37	39	35
Vertebrae								
1st Arch gillrakers (up)	6	7	6	6	6	6	7	7
(lower)	12	12	12	12	13	13	13	12
(total)	18	19	18	18	19	19	20	19
Branchiostegal rays right	12	11	11	10	11	10	10	11
(left)	13	11	12	11	10	11	11	11
Dorsal rays	12	12	12	12	11	12	12	12
Anal rays	12	11	12	12	11	12	12	12
Pectoral fin rays	15	15	15	14	14	15	14	14
Scales in lateral line								
Scales above lateral line	38	40	37	35	37	38	37	37
Scales 2 rows above lat.	160	164	171	152	167	160	155	168
Pelvic fin rays	10	9	10	9	9	9	8	9
Pyloric caeca	45	53	41	49	49	55	45	51
Dentition	5	0	17	11	3?	17	14	8

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES _____ LOCALITY Alice Lake

COLLECTED BY _____ DATE _____

Cat. # _____ Measurements by _____ DATE 11/24/77

Specimen #	17							
Total L.	268							
Standard L.	230							
Body D	58							
Head L	60							
Orbit L	15							
Upper Jaw L	33							
Dors. Orig. to Snt. tip	110							
Dorsal fin basal L	28							
Dorsal fin depressed L	47							
Adip. fin depressed L	21							
Caudal peduncle D	24							
Caudal peduncle L	37							
Vertebrae								
1st Arch gillrakers (up)	7							
(lower)	13							
(total)	20							
Branchiostegal rays right	10							
(left)	11							
Dorsal rays	12							
Anal rays	13							
Pectoral fin rays	14							
Scales in lateral line								
Scales above lateral line	37							
Scales 2 rows above lat.	145							
Pelvic fin rays	9							
Pyloric caeca	57							
Dentition	4							

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES S.C. Utah LOCALITY Lake Alice

COLLECTED BY Miller - Versluys DATE Aug. 23 - 77

Cat. # ~~Measurements~~ CONVERSIONS by D. Wethington DATE 4/26/78

Specimen #

	1	2	3	4	5	6	7	8
Total L.								
Standard L.	218	216	228	231	235	245	211	226
Body D	270	241	224	238	238	261	246	257
Head L	266	236	276	277	285	310	261	305
Orbit L	87	56	75	65	68	69	66	71
Upper Jaw L	147	134	159	160	162	200	152	186
Dors. Orig. to Snt. tip	505	500	513	498	472	535	512	522
Dorsal fin basal L	147	139	145	121	119	122	147	119
Dorsal fin depressed L	234	218	237	212	196	196	227	199
Adip. fin depressed L	83	88	88	91	77	73	95	75
Caudal peduncle D	110	106	105	108	102	106	104	111
Caudal peduncle L	151	167	153	152	153	159	152	164
Vertebrae								
1st Arch gillrakers (up)								
(lower)								
(total)								
Branchiostegal rays right								
(left)								
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line								
Scales 2 rows above lat.								
Pelvic fin rays								
Pyloric caeca								
Dentition								

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES _____ LOCALITY Lake Alice

COLLECTED BY _____ DATE Aug 23 - 77

Cat. # _____ ~~Measurements~~ CONVERSIONS by D. Wethington DATE 4/26/78

Specimen #	9	10	11	12	13	14	15	16	17
Total L.									
Standard L.	240	245	199	228	188	236	358	226	230
Body D	263	233	276	241	239	267	264	221	252
Head L	279	269	246	289	250	246	271	243	261
Orbit L	63	69	60	70	64	64	62	62	65
Upper Jaw L	167	155	141	184	138	153	159	137	143
Dors. Orig. to Snt. tip	500	502	513	513	489	525	508	469	478
Dorsal fin basal L	117	110	146	132	117	140	128	133	122
Dorsal fin depressed L	192	224	206	211	202	233	213	208	204
Adip. fin depressed L	89	94	95	75	96	89	85	80	91
Caudal peduncle D	108	110	111	110	106	106	109	106	104
Caudal peduncle L	154	155	166	166	165	157	151	155	161
Vertebrae									
1st Arch gillrakers (up)									
(lower)									
(total)									
Branchiostegal rays right									
(left)									
Dorsal rays									
Anal rays									
Pectoral fin rays									
Scales in lateral line									
Scales above lateral line									
Scales 2 rows above lat.									
Pelvic fin rays									
Pyloric caeca									
Dentition									

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES S. c. utah LOCALITY Giraffe Creek, Wyoming

COLLECTED BY Glen Dunning DATE July 13, 1977

Cat. # Measurements by Pam Gale DATE Oct 26 1977

Specimen #

	1	2	3	4	5	6	7	8
Total L.	201	281	190	167	217	161	160	192
Standard L.	167	236	162	139	185	136	139	160
Body D	41	52	40	33	45	31	33	41
Head L	46	67	45	38	52	35	34	42
Orbit L	11	15	11	11	13	10	9	11
Upper Jaw L	27	41	26	21	30	18	18	23
Dors. Orig. to Snt. tip	84	123	78	72	87	64	67	81
Dorsal fin basal L	24	26	21	18	25	15	18	22
Dorsal fin depressed L	37	43	34	29	40	27	38	35
Adip. fin depressed L	16	23	17	12	13	14	12	15
Caudal peduncle D	17	23	17	14	20	14	14	16
Caudal peduncle L	24	39	26	23	29	22	24	25
Vertebrae								
1st Arch gillrakers (up)	6	7	7	7	7	7	6	7
(lower)	13	14	13	13	12	12	12	12
(total)	19	21	20	20	19	19	18	19
Branchiostegal rays right	10	11	12	12	11	12	10	11
(left)	11	12	13	11	11	13	11	12
Dorsal rays	13	11	12	12	13	12	12	12
Anal rays	12	11	12	11	13	12	11	12
Pectoral fin rays	14	14	14	15	15	14	14	15
Scales in lateral line								
Scales above lateral line	40	39	37	35	38	37	36	38
Scales 2 rows above lat.	168	172	178	172	154	178	172	171
Pelvic fin rays	9	8	9	9	10	9	9	9
Pyloric caeca	41	49	42	35	45	40	42	45
Dentition	8	0	29	15	7	5	8	12
						♀	♀	♀

rakers N=33

16	17	18	19	20	21
2	4	10	12	4	1

16-21 (18.5)

scales N=33 above 34-42 (37.9)

149-181 (168.5)

caeca N=33 35-49 (41.0)

Teeth N=34 1 w/o

33 w/ 1-30 (9.4)

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES _____ LOCALITY Giraffe Crk

COLLECTED BY Glen Dunning DATE July 13, 1977

Cat. # _____ Measurements by Pam Gale DATE Oct 26, 1977

Specimen #

	9	10	11	12	13	14	15	16
Total L.	154	150	148	194	186	158	158	171
Standard L.	133	133	123	165	162	133	132	151
Body D	31	33	30	41	40		35	34
Head L	34	35		43	43		36	41
Orbit L	10	9		12	11		9	11
Upper Jaw L	18	19		24	23		20	22
Dors. Orig. to Snt. tip	64	62		83	80		68	74
Dorsal fin basal L	17	16		22	21		18	17
Dorsal fin depressed L	27	28		35	35		29	30
Adip. fin depressed L	11	13		15	14		12	13
Caudal peduncle D	14	13		18	16		15	15
Caudal peduncle L	22	22		25	28		22	23
Vertebrae								
1st Arch gillrakers (up)	6	7	7	6	6	7	6	6
(lower)	11	11	11	12	13	11	14	10
(total)	17	18	18	18	19	18	20	16
Branchiostegal rays right	11	11	12	11	10	11	11	11
(left)	12	11	13	12	11	11	12	12
Dorsal rays	13	12	12	13	12	12	13	12
Anal rays	12	12	11	12	12	12	12	12
Pectoral fin rays	15	14	15	15	15	14	15	15
Scales in lateral line								
Scales above lateral line	40	39	39	42	37	37	38	34
Scales 2 rows above lat.	181	169	176	170	156	168	163	166
Pelvic fin rays	10	9	9	9	9	9	9	9
Pyloric caeca	46	39	36	38	37	42	38	39
Dentition	10	3	15	3	3	5	7	6
						♀		

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES _____ LOCALITY Giraffe Crk, Wyo.

COLLECTED BY Glen Dunning DATE July 13, 1977

Cat. # _____ Measurements by Dan Gale DATE Oct 26, 1977

Specimen #

	17	18	19	20	21	22	23	24
Total L.	151	189	133	144	165	143	172	117
Standard L.	128	158	111	125	139	120	150	98
Body D	31	40	30		36		37	25
Head L	34	43	32		37		40	26
Orbit L	10	11	9		9		11	8
Upper Jaw L	19	23	18		21		22	15
Dors. Orig. to Snt. tip	64	77	57		69		74	48
Dorsal fin basal L	18	22	14		18		21	14
Dorsal fin depressed L	28	34	23		31		32	22
Adip. fin depressed L	11	12	10		12		14	9
Caudal peduncle D	14	17	12		14		15	11
Caudal peduncle L	21	24	18		23		24	16
Vertebrae								
1st Arch gillrakers (up)	7	6	7	7	7	7	6	6
(lower)	11	11	11	12	12	12	12	12
(total)	19	17	18	19	19	19	18	18
Branchiostegal rays right	10	11	11	11	12	12	11	10
(left)	11	12	11	12	13	13	12	11
Dorsal rays	12	12	13	13	12	12	12	12
Anal rays	12	12	12	13	12	12	12	12
Pectoral fin rays	16	14	14	14	16	14	16	15
Scales in lateral line								
Scales above lateral line	37	36	40	40	40	37	36	42
Scales 2 rows above lat.	169	175	166	180	173	157	170	162
Pelvic fin rays	9	9	9	9	10	9	9	9
Pyloric caeca	40	39	44	41	42	36	40	45
Dentition	7	20	6	23	30	17	7	7

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES Salmo clarkii utah LOCALITY Giraffe Crk, Wyoming

COLLECTED BY Glen Dunning DATE July 13, 1977

Cat. # ~~Measurements~~ CONVERSIONS by D.J. Wethington DATE 4/29/78

Specimen #

	1	2	3	4	5	6	7	8
Total L.								
Standard L.	167	236	162	139	185	136	139	160
Body D	246	220	247	237	243	228	237	256
Head L	275	284	278	273	281	257	245	263
Orbit L	66	64	69	79	70	74	65	69
Upper Jaw L	162	174	160	151	162	132	129	144
Dors. Orig. to Snt. tip	503	521	481	518	470	471	482	506
Dorsal fin basal L	144	110	130	129	135	110	129	138
Dorsal fin depressed L	223	182	210	209	216	199	273	219
Adip. fin depressed L	96	97	105	86	70	103	86	94
Caudal peduncle D	102	97	105	101	108	103	101	100
Caudal peduncle L	144	165	160	165	157	162	173	156
Vertebrae								
1st Arch gillrakers (up)								
(lower)								
(total)								
Branchiostegal rays right								
(left)								
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line								
Scales 2 rows above lat.								
Pelvic fin rays								
Pyloric caeca								
Dentition								

n		Range	Mean
33	1 arch gillrakers (up)	5-7 (2)	6.52
"	(lower)	10-14 (4)	11.93
"	(total)	16-21 (5)	18.45
"	Branchiostegal Rays right	9-13 (4)	11.21
	left	10-13 (3)	11.70
"	Dorsal Rays:	11-13 (2)	12.15
"	Anal Rays:	11-13 (2)	11.91
"	Pectoral fin rays:	13-16 (3)	14.61
"	Pelvic fin rays:	9-10 (3	9.10
"	Scales above l.l.:	34-42 (8)	37.91
"	Scales 2 rows above l.l.:	149-181 (32)	168.55
"	Pyloric caeca:	35-49 (14)	40.73
34	Dentition:	1 w/ 0 33 w/ 1-30	9.4

pp 4 & 5 lack the data that's nec. for conversion computation

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES S.c. utah LOCALITY Giraffe Creek

COLLECTED BY Glen Dunning DATE July 13, 1977

Cat. # ~~Measurements~~ CONVERSIONS by Dan Wethington DATE 4/29/78

Specimen #

	9	10	11	12	13	14	15	16
Total L.								
Standard L.	133	133	123	165	162	133	132	151
Body D	233	248	244	248	247		265	225
Head L	256	263		261	265	No	273	272
Orbit L	75	68	No	73	68		68	73
Upper Jaw L	135	143		145	142	data	152	146
Dors. Orig. to Snt. tip	481	466	more	503	494		515	490
Dorsal fin basal L	128	120		133	130	given	136	113
Dorsal fin depressed L	203	211	data	212	216		220	199
Adip. fin depressed L	83	98		91	86		91	86
Caudal peduncle D	105	98		109	99		114	99
Caudal peduncle L	165	165		152	173		167	152
Vertebrae								
1st Arch gillrakers (up)								
(lower)								
(total)								
Branchiostegal rays right								
(left)								
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line								
Scales 2 rows above lat.								
Pelvic fin rays								
Pyloric caeca								
Dentition								

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES S. c. utah LOCALITY Giraffe Creek

COLLECTED BY Glen Dunning DATE July 13, 1977

Cat. # ~~Measurements~~ Conversions by Dan Wethington DATE April 29, 1978

Specimen #

	17	18	19	20	21	22	23	24
Total L.								
Standard L.	128	158	111	125	139	120	150	98
Body D	242	253	270		259		247	255
Head L	266	272	288	No	266	No	267	265
Orbit L	78	70	81		65		73	82
Upper Jaw L	148	146	162	data	151	data	147	153
Dors. Orig. to Snt. tip	500	487	514		496		493	490
Dorsal fin basal L	141	139	126	juvenile	129	juvenile	140	143
Dorsal fin depressed L	219	215	207		223		213	224
Adip. fin depressed L	86	76	90		86		93	92
Caudal peduncle D	109	108	108		101		100	112
Caudal peduncle L	164	152	162		165		160	163
Vertebrae								
1st Arch gillrakers (up)								
(lower)								
(total)								
Branchiostegal rays right								
(left)								
Dorsal rays								
Anal rays								
Pectoral fin rays								
Scales in lateral line								
Scales above lateral line								
Scales 2 rows above lat.								
Pelvic fin rays								
Pyloric caeca								
Dentition								

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES _____ LOCALITY Giraffe Crk, W40

COLLECTED BY Glen Dunning DATE July 13, 1977

Cat. # _____ Measurements by _____ DATE _____

Specimen #	25	26	27	28	29	30	31	32
Total L.	115	122	138	120	109	105	109	110
Standard L.	96	102	119	99	90	88	90	92
Body D								
Head L								
Orbit L								
Upper Jaw L								
Dors. Orig. to Snt. tip								
Dorsal fin basal L								
Dorsal fin depressed L								
Adip. fin depressed L								
Caudal peduncle D								
Caudal peduncle L								
Vertebrae								
1st Arch gillrakers (up)	6	7	7	7	6	5	6	6
(lower)	12	12	12	12	11	11	11	12
(total)	18	19	19	19	17	16	17	18
Branchiostegal rays right	10	11	12	10	11	9	11	11
(left)	11	12	12	11	12	10	12	12
Dorsal rays	11	12	12	12	12	12	12	12
Anal rays	12	12	12	12	12	12	12	12
Pectoral fin rays	15	15	14	14	14	13	15	15
Scales in lateral line								
Scales above lateral line	38	37	39	37	40	36	37	36
Scales 2 rows above lat.	167	168	181	162	176	149	151	168
Pelvic fin rays	9	10	9	9	10	10	9	7
Pyloric caeca	43	44	37	36	42	44	43	41
Dentition	6	5	5	3	9	1	5	9

CHARACTER ANALYSIS SHEET - COLORADO COOPERATIVE FISHERY UNIT

SPECIES _____ LOCALITY Giraffe Cat, Wyo

COLLECTED BY Glen Dunning DATE July 13, 1977

Cat. # _____ Measurements by _____ DATE _____

Specimen #	33	34						
Total L.	106	95						
Standard L.	87	80						
Body D								
Head L								
Orbit L								
Upper Jaw L								
Dors. Orig. to Snt. tip								
Dorsal fin basal L								
Dorsal fin depressed L								
Adip. fin depressed L								
Caudal peduncle D								
Caudal peduncle L								
Vertebrae								
1st Arch gillrakers (up)	7							
(lower)	13							
(total)	20							
Branchiostegal rays right	10							
(left)	11							
Dorsal rays	12							
Anal rays	11							
Pectoral fin rays	15							
Scales in lateral line								
Scales above lateral line	37							
Scales 2 rows above lat.	17+							
Pelvic fin rays	9							
Pyloric caeca	4/3							
Dentition	8	5						

Teeth in the Cutthroat

Raymond Cr.

1972 Thomas Tk.

Raymond Crk. recount.

N = 21 2 w/o teeth

19 w 1-17 (7.0)

10 - 8

9 - 10

4 - 8

1 - 11 37

3 - 5

6 - 1

7 - 8

8 - 5

2 - 0

5 - 17 36

11 - 8 About 202

12 - 7 About 184

13 - 8 " 149

14 - 6 29

15 - 9

16 - 6

17 - 6 31

18 - 10

19 - 0

20 - 12 15

21 - 3

37
36
29
31
215
148

7.0
21 | 148
147
1

1976 Raymond Crk, teeth recounts

Upper Raymond

3 - 9

1 - 8 17

2 - 7

6 - 8? 15 43 N 6

5 - 5 11

4 - 6

South Fk. Raymond

6 - 7

3 - 6

1 - 1

5 - 10

2 - 8

4 - 2

Lower Raymond

N 6 34

3 - 18 14 - 4

2 - 6 15 - 3 N 19 98

1 - 10

12 - 1

6 - 4

8 - 6

11 - 3

7 - 10

9 - 4

4 - 8

5 - 0

8 - 4

16 - 5

7 - 4

10 - 2

13 - 4

10 - 7 - two tens

9 - 5

98
34
43
175

5.7
31 | 175
155
200

31 - 32

1 - 18 x̄ 5.7