

Summary Report: Bald Mountain Creek-Bear Creek (Elk River) Juvenile Snorkel Survey, August 2011

Survey conducted for: US Forest Service (Powers R.D.) and Elk River Land Trust

Survey conducted by: South Coast Watershed Council monitoring staff

Survey funded by: US Forest Service – Elk River Aquatic Action Plan invoice #453

Summary

On August 30, 2011 South Coast Watershed Council monitoring technicians surveyed approximately 0.67 miles (3527 ft) of Bald Mountain Creek using a modified version of ODFW's rapid bio-assessment snorkel survey protocol – all habitat unit widths and lengths were measured. Jerry Becker of the Elk River Land Trust accompanied the crew. The survey began in the first pool upstream of the decommissioned Forest Service bridge crossing on FSR5502020, and proceeded downstream past the Bear Creek confluence to a bedrock constriction that correlates closely with a parcel boundary between Roseburg Forest Products (RFP) and the Siskiyou National Forest. Bear Creek was also snorkeled to determine presence/absence. Pools were selected based on their position relative to potential barriers and incoming tributary streams; the objective was to determine the extent of fish usage within the stream network of the RFP parcel, which is being considered for acquisition or easement.

Within the survey segment Bald Mountain Creek is a 4th order stream that is highly constricted by bedrock and hillslopes and is moderate to steep for a stream of its size (gradient fluctuates from 1-2% at the bedrock canyon up to 4-8% near the upstream end of the survey). Straight and lateral scour pools are most common, and typically form around bedrock and boulders; at least one plunge pool exists within the steeper gradient. Pool depth (estimated as visibility) averaged 4-6 feet, with a max depth of 8-10 feet. Steelhead (juveniles and 1+) were prolific and cutthroat (juveniles and 1+) were common; no chinook or coho salmon were observed. Steelhead and cutthroat occupied every pool; densities were 0.362 and 0.051 fish per square meter of pool habitat, respectively, which are over five times what a 2005 ODFW study found to be mean densities in 4th field streams within the SONC ESU (excluding the Rogue Basin).

Bear Creek begins as a moderately incised stream channel with a slope of 2-4%. Approximately 250 meters upstream of its confluence with Bald Mountain Creek, Bear Creek begins to climb through a short series of boulder cascades and then through a segment that is incised into debris flow deposition (occurred during the 1996 flood). Within this segment there are multiple log jams that Bear Creek pours over and through. Upstream of this segment the gradient drops to ~1% and the valley widens, resulting in moderately sinuous pool-riffle sequences. The habitat in this upper segment is well suited to coho, but none were observed. Steelhead were found in all snorkeled pools downstream of the boulder cascades, as well as all pools upstream of the cascades; cutthroat were limited to the pools upstream of the cascades. One pool was sampled in a small tributary that drains in from the north, which had also been subject to a debris flow in the last 30 or so years; steelhead were found in the pool.

Survey data is provided below.

For questions please contact: Matt Swanson – South Coast Watershed Council (541) 373-0800

Juvenile Snorkel Survey

Site: Bald Mountain Creek (Elk River)

Date: 8/30/2011

Surveyors: MS/AF/J. Becker

Weather: Start at 12 pm; partly cloudy

Survey began at first pool upstream of decommissioned bridge crossing on FSR 5502020 and went downstream past Bear Creek to the start of a bedrock canyon that correlated closely with the downstream end of the RFP parcel.

Notes:

Length: Survey length approximately 0.67 miles (3527 ft)

Unit	Measured Width (M)	Measured Length (M)	Cover	Visibility	CHNK	COHO	STLHD	CT	COMMENTS
P1	10	21	3	4-6	0	0	45	1	
R1	5	58							
P2	6	10	2	2-4	0	0	18	5	
R2	4	28							
P3	11	18	4	6-8	0	0	120	20	
R3	8	87							
P4	8	36	4	8-10	0	0	180	40	
R4	9	78							
P5	9	24	2	2-4	0	0	70	15	
R5	6	39							
P6	8	14	2	2-4	0	0	45	15	
R6	3	14							
P7	8	32	2	4-6	0	0	47	7	
R7	7	20							
P8	7	37	3	4-6	0	0	95	5	
R8	9	68							
P9	6	53	2	2-4	0	0	150	4	Bear Cr at head of pool
R9	4	36							
P10	8	36	4	4-6	0	0	122	12	
R10	6	20							
P11	10	52	3	6-8	0	0	132	11	
R11	4	32							
P12	6	12	2	2-4	0	0	30	3	
R12	5	11							
P13	6	33	3	4-6	0	0	75	20	
R13	8	15							
P14	7	27	3	2-4	0	0	45	1	
R14		43							
P15	8	39	4	4-6	0	0	90	20	
R15	6	82							
Totals		1075			0	0	1264	179	

Juvenile Snorkel Survey

Site: Bear Creek (Elk River)

Date: 8/30/2011

Surveyors: MS/AF/J. Becker

Water Temp: 58 F

Notes: Survey conducted for the purpose of determining presence/absence; not population size or densities. Pools selected based on potential barriers, tributaries, etc.

Unit	CHNK	COHO	STLHD	STLHD 1+	CT	0 Trout	COMMENTS
P1	0	0	7		0	0	Pool just up from BldMt crk
P2	0	0	10	5	0	0	Pool just up from BldMt crk
P3	0	0	13	1	0	0	Pool below low water ford xing
P4	0	0	3	2	0	0	Begin boulder cascades
P5	0	0	2	1	0	0	Pool just above 5ft drop
P6	0	0	1	1	0	0	Pool above wood jam
P7	0	0	2	1	2	0	
P8	0	0	8	0	1	0	Pool where FS road begins to run along the creek
P9	0	0	9	0	2	0	Near confluence with trib from south
Up Bear Cr trib	0	0	5	0	0	0	Up tributary to north - on RFP parcel