Table 1. Mean baseflow, mean width, length of survey reach and elevation of our four study streams of our four study streams. Mean baseflow calculated as the mean daily flows during baseflow conditions, August to October.

Study stream	Mean baseflow (m^3/s)	Mean width (m)	Length of survey reach (m)	Elevation (m)
Spawn Creek	0.11	1.85	2200	1800
Temple Fork	0.37	3.71	2500	1745
Beaver Creek	0.04	4.41	3000	2000
Franklin Basin	0.31	8.41	3000	2052

14 Table 2. Egg-to-fry survival rates (hatch and emergence), hatch and emergence times, and

15 measurements of key abiotic variables for tributary sites. Daily mean temperature was calculated

16 over the course of each study sites' respective hatch and emergence periods. Egg boxes were

17 installed in all study sites on 1 July, 2008.

Site	Number of days to hatch ending	Mean hatch survival (%)	Mean water temperature (°C)	Mean fine sediment (g)	Number of days to emergence ending	Mean emergence survival (%)	Mean water temperature (°C)	Mean fine sediment (g)
Mid-Elevation Tributaries								
Temple Fork 1	14	65	8.99	26	28	42	9.45	34
Temple Fork 2	14	80	8.99	19	28	63	9.44	32
Temple Fork 3	14	84	8.51	22	28	84	8.99	36
Temple Fork 4	14	80	8.48	43	28	72	8.97	30
Spawn Creek 1	12	23	10.73	125	28	6	10.80	238
Spawn Creek 2	12	22	10.68	15	28	31	10.79	88
Spawn Creek 3	12	79	10.60	63	28	60	10.74	32
Spawn Creek 4	12	49	10.60	40	28	60	10.73	69
Mean		*60*	*9.70*	*44*		*52*	*9.99*	*70*
High-Elevation Tributaries								
Beaver Creek 1	12	67	10.18	26	28	61	11.21	49
Beaver Creek 2	12	74	9.95	22	28	44	10.36	58
Beaver Creek 3	12	75	9.91	29	28	65	10.28	91
Beaver Creek 4	12	81	9.86	16	28	58	10.23	49
Franklin Basin 1	22	21	6.98	141	38	1	7.50	291
Franklin Basin 2	22	62	7.04	56	38	48	7.65	124
Franklin Basin 3	22	75	6.65	85	38	61	7.09	117
Franklin Basin 4	22	83	6.39	25	38	55	6.67	55
Mean		*67*	*8.37*	*50*		*47*	*8.87*	*104*

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Table 3. Results of statistical tests for BCT hatch and emergence survival. Across site tests compared the mean hatch or emergence survival at each of the four study areas. Within site tests compared the hatch or emergence survival (dependent variables) of each set of three egg boxes within each study area. See Methods for additional detail.

Measurement	Statistical test	DF	F-statistic	P-value
Hatch stage survival				
Across study sites	Single factor ANOVA	3, 12	2.44	0.12
Temple Fork	Single factor ANOVA	3, 8	1.08	0.41
Spawn Creek	Single factor ANOVA	3, 8	4.92	0.03
Beaver Creek	Single factor ANOVA	3, 8	1.79	0.23
Franklin Basin	Single factor ANOVA	3, 8	3.78	0.06
Mean hatch fine sediment vs. mean hatch survival (all study sites combined)	Logistic regression	1	n/a	<0.001
Mean hatch daily stream temperature vs. mean hatch survival (all study sites combined)	Logistic regression	1	n/a	<0.001
Emergence stage survival				
Across study sites	Single factor ANOVA	3, 12	1.38	0.30
Temple Fork	Single factor ANOVA	3, 8	2.58	0.13
Spawn Creek	Single factor ANOVA	3, 8	2.80	0.12
Beaver Creek	Single factor ANOVA	3, 8	0.27	0.84
Franklin Basin	Single factor ANOVA	3, 8	5.24	0.03
Mean emergence fine sediment vs. mean emergence survival (all study sites combined)	Logistic regression	1	n/a	<0.001
Mean emergence daily stream temperature vs. mean hatch survival (all study sites combined)	Logistic regression	1	n/a	>0.100
Hatch vs. Emergence				
Fine sediment	Single factor ANOVA	1, 29		0.20

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