

Fish were sampled in three standard segments of the Silver Creek system at night from June to early July 2004 to monitor abundance of rainbow trout and brown trout. Sampled segments were designated as: lower Stalker Creek, Silver Creek at Martin Bridge, and Silver Creek at the cabin site. Sampled reaches were from 800 to 1200 m in length. Fish were collected using electrofishing techniques. Equipment included an aluminum drift boat outfitted with a 5,000-watt Honda generator providing AC power to a Coffelt V-15 variable voltage pulsator (VVP), which routed DC power to two boat mounted anodes. The aluminum hull of the drift boat was used as the cathode. Two netters attempted to net all fish stunned by the electrical field throughout the transect. Netted fish were put into an oxygenated live-well until they were identified to species, measured and weighed.

Each site was electrofished three times using multiple mark-recapture population estimate techniques. Only fish greater than 99 mm long were marked. The Schnable multiple mark recapture model was used for population estimation as described by Ricker (1958).

Population estimates were determined by 100 mm length groups, age class and for fish over 250 mm (approximately 10 in). Length at age was loosely derived from length frequency histograms prepared for each location by species. Length and age groups were combined when sufficient recaptures were not collected. A minimum of four recaptures was considered sufficient.

Estimated abundance of brown and rainbow trout by 100 mm length groups. Relative densities are listed by square meter and linear mile. Tables are separated by sample reach.

Lower Stalker Creek

Species	Length G	Estimate	90% C.I.		Fish/100 m ²	Fish/mi
			lower	upper		
Brn Trt	100-200		Insufficient recaptures			
Brn Trt	100-300	513	306	933	5	684
Brn Trt	301+	75	50	120	1	100
Rbt Trt	100-200	600	407	925	5	799
Rbt Trt	201+	129	73	249	1	171
Rbt Trt	301+		Insufficient recaptures			
Brn Trt	250+	83	55	132	1	110
Rbt Trt	250+	117	59	275	1	156

Silver Creek @ Cabin Site

Species	Length	Estimate	90% C. I.		Fish/100 m ²	Fish/mi
			lower	upper		
Brn Trt	100+	1764	1086	3068	6	3528
Rbt Trt	100-200	460	180	1840	2	920
Rbt Trt	201+	489	238	1222	2	977
Brn Trt	250+	1340	614	3655	5	2680
Rbt Trt	250+	1767	987	3600	6	3535

Silver Creek @ Martin Bridge

Species	Length	Estimate	90 % C.I.		Fish/100 m ²	Fish/mi
			lower	upper		
Brn Trt	100-200	262	142	556	2	475
Brn Trt	201-300	351	185	790	2	638
Brn Trt	301+	304	229	413	2	552
Rbt Trt	100-200		Insufficient Recaptures			
Rbt Trt	201-300		Insufficient Recaptures			
Rbt Trt	301+		Insufficient Recaptures			
Brn Trt	250+	343	244	581	2	624
Rbt Trt	250+		Insufficient Recaptures			

Estimated abundance of brown and rainbow trout by age classification. Relative densities are listed by square meter and linear mile. Tables are separated by sample reach.

Lower Stalker Creek

Species	Length	Age	Estimate	90% C. I.		Fish/100 m ²	Fish/mi
				lower	upper		
BRN	100-350	1-2	542	328	968	5	77
BRN	350+	3+	58	38	93	1	867
RBT	100-250	1	650	462	955	6	723
RBT	251-350	2+	117	59	275	1	156

Silver Creek @ Cabin Site

Species	Length	Age	Estimate	90% C. I.		Fish/100 m ²	Fish/mi
				lower	upper		
BRN	100+	1+	3076	2090	4748	11	6153
RBT	100-250	1	1373	629	3743	5	2745
RBT	251+	2+	489	238	1222	2	977

Silver Creek at Martin Bridge

Species	Length	Age	Estimate	90% C. I.		Fish/100 m ²	Fish/mi
				lower	upper		
Brn Trt	100-200	1	262	142	556	2	475
Brn Trt	201-350	2	413	279	644	2	751
Brn Trt	350+	3+	198	141	287	1	359
Rbt	Insufficient Recaptures						