Most of the surveyed sites featured habitat suitable for Ninespine Stickleback, because of the predominance of fine substrates, detritus, and extensive instream and bank cover in the form of submerged grass vegetation. Aquatic habitat suitable for other small-bodied fish species that may inhabit shallow, ephemeral streams in the study area (e.g., Slimy Sculpin, Arctic Grayling) was scarce and limited to only three watercourses (site M5.0, M11.5, and M23.7). These streams featured sections of coarse substrates (gravel, cobble, and boulder) and riffle habitats that were deemed suitable for Arctic Grayling spawning and rearing. None of the surveyed streams provided overwintering habitat because they all would freeze to bottom during winter.

3.2 Fish Populations

Fish sampling effort and capture data for stream crossing sites are provided in Appendix C. More detailed data on individual fish lengths, weights, and sexual maturity are in Appendix D.

In total, 451 fish representing three species were captured or observed at six of the nine sites surveyed (Table 1). Ninespine Stickleback (*n*=400) was the most abundant species, accounting for 89% of the total catch. Arctic Grayling (*n*=29) were recorded at two sites (M11.5 and M23.7), whereas Slimy Sculpin (*n*=22) were recorded only at site M23.7.

Table 1: Number of Fish Captured or Observed in Streams along the Proposed Meliadine Road Corridor, 1997 to 2008

Site	Date Sampled	Sampling Effort (s)	Number of Fish Captured or Observed				Total CPUE[b] (fish/min)
			Arctic Grayling	Slimy Sculpin	Ninespine Stickleback	Total	
M3.0	20-Jun-08	211			2	2	0.57
M3.9	18-Jun-08	185				0	0.00
M5.0	18-Jun-08	293			260	260	53.24
M6.7	20-Jun-08	[a]				0	-
M8.6	18-Jun-08	262				0	0.00
M11.5	19-Jun-08	520	6		38	44	5.08
M13.3	19-Jun-08	222			10	10	2.70
M22.6	17-Jun-08	398			27	27	4.07
M23.7	19-Jun-97	829	17	6	5	28	2.03
	14-Jul-97	313		4	2	6	1.15
	15-Jun-98	624	4	2	1	7	0.67
	23-Jun-00	640		1	3	4	0.38
	22-Jul-00	450		5	8	13	1.73
	17-Sep-00	533	1	1	26	28	3.15
	17-Jun-08	409	1	3	18	22	3.23
Total		**5889**	**29**	**22**	**400**	**451**	**4.60**

[a] Fish sampling was not done because the stream was dry

[b] Catch-per-unit-effort