

Summary of Fish Catch Results for Mineral Pt Cove, 2008 and 2009

Skagit River System Cooperative Research Program

January 2013

Beach seine sampling for fish was conducted at Mineral Pt Cove as part of Washington State's Salmon Recovery Funding Board Project # 07-1863 N: *WRIA2 Habitat Based Assessment of Juvenile Salmon*, also locally known as the *Big Picture Project*.

Mineral Pt Cove is located on the northeast side of San Juan Island within the San Juan Islands (Figure 1). Small and large net beach seines were used at Mineral Pt Cove after methods described in Skagit System Cooperative Research Department (2003). We made 18 beach seine sets (16 small net and 2 large net sets) over the two-year study period. Beach seining occurred in March, June, July and September of 2008 and monthly from March through September in 2009.

The beach seine site within Mineral Pt Cove varied from gravel to mixed coarse substrate, with mixed algae and kelp as the dominant vegetative cover 67% of the time, without vegetative cover 33% of the time. The average maximum water depth was 1.23 meters and the average salinity was 30.8 parts per thousand. The surface water temperature varied by month, and ranged from a low of 7.0 °C in March 2009 to a high of 12.6 °C in September 2008.

At Mineral Pt Cove we caught a total of 4,489 fish from 33 different species or species groupings over the two-year study period, including five species of juvenile salmon and one species of forage fish (Table 1). The most abundant fish species was subyearling chum salmon with a catch of 3,764 fish, present in 33.3% of beach seine sets. They accounted for 83.8% of the total catch. Ninety-four percent of the chum salmon were caught in 3 sets on May 22 and June 9, 2009.

Please refer to Beamer and Fresh (2012) for more information regarding timing, abundance, and habitat selection of focal fish species for the Big Picture Project. The focal species are: Chinook salmon, chum salmon, pink salmon, Pacific herring, surf smelt, Pacific sand lance, and hexagrammids (greenlings and lingcod).

References

Beamer, EM and KL Fresh. 2012. Juvenile Salmon and Forage Fish Presence and Abundance in Shoreline Habitats of the San Juan Islands, 2008-2009: Map Applications for selected fish species. Report to San Juan County Department of Community Development and Planning and San Juan County Marine Resources Committee. Friday Harbor, WA.

Skagit System Cooperative Research Department. 2003. Estuarine fish sampling methods. Skagit River System Cooperative. LaConner, WA. Available: <http://www.skagitcoop.org/documents>



Figure 1. Location of Mineral Pt Cove beach seine site.

Table 1. Fish catch summary for Mineral Pt Cove beach seining, 2008 and 2009.

Assemblage Groupings	Taxonomic group	Genus species, age & mark	Common name	Species abbreviation	Total catch	Catch per set	Frequency in catch
Flatfish	Pleuronectiformes	Lepidopsetta bilineata	Rock sole	ROCK SOLE	1	0.06	5.6%
Forage fishes	Clupeidae	Clupea pallasii adult body form	Pacific herring, adult body form	HERR a	1	0.06	5.6%
Greenlings/ lingcod	Hexagrammidae	Ophiodon elongatus	Lingcod	LINGCOD	1	0.06	5.6%
	Hexagrammidae	Hexagrammos spp	Unidentified greenling species	O/U GREENLING	23	1.28	33.3%
		Hexagrammos stelleri	Whitespot greenling	WHITESPOT GR	26	1.44	27.8%
Gunnels and Pricklebacks	Pholidae	Unidentified Gunnel Species	Unidentified gunnel species	GUNNEL	5	0.28	16.7%
		Pholis laeta	Crescent gunnel	CRES GUNL	14	0.78	33.3%
		Apodichthys flavidus	Penpoint gunnel	PENPT GUNL	24	1.33	38.9%
		Pholis ornata	Saddleback gunnel	SADLBCK GUNL	31	1.72	38.9%
	Stichaeidae	Xiphister atropurpureus	Black prickleback	BLK PRICKLE	2	0.11	11.1%
		Lumpenus sagitta	Snake prickleback	SNAKE	18	1.00	11.1%
Other - marine	Agonidae	Other or unknown Agonid	Unidentified poacher species	O/U POACHER	1	0.06	5.6%
Other - unknown	Unclassified Larval Fish	Larval Fish	Unidentified larval fish	O/U LARVAL FISH	1	0.06	5.6%
Pacific salmon	Salmonidae	Oncorhynchus tshawytscha age 0+ no external mark	Chinook salmon, wild subyearling	CK 0+ nem	1	0.06	5.6%
		Oncorhynchus kisutch age 1+ no external mark	Coho salmon, wild yearling	CO 1+ nem	1	0.06	5.6%
		Oncorhynchus gorbuscha age 0+	Pink salmon, subyearling	PK 0+	113	6.28	33.3%
		Oncorhynchus nerka age 0+	Sockeye salmon, subyearling	SOCK 0+	365	20.28	16.7%
		Oncorhynchus keta age 0+	Chum salmon, subyearling	CH 0+	3764	209.11	33.3%
Rockfish	Scorpaenidae	Sebastes caurinus	Copper rockfish	COPPER ROCKFSH	2	0.11	5.6%
Sculpins	Cottidae	Hemilepidotus spinosus	Brown Irish lord	BROWN IR LORD	1	0.06	5.6%
		Blepsias cirrhosus	Silverspotted sculpin	SILVER SPOT SC	1	0.06	5.6%
		Enophrys bison	Buffalo sculpin	BUFF	3	0.17	16.7%
		Artedius fenestralis	Padded sculpin	PADD SCULP	8	0.44	16.7%
		Other or unknown Cottid	Unidentified sculpin species	O/U SCULP	13	0.72	22.2%

Assemblage Groupings	Taxonomic group	Genus species, age & mark	Common name	Species abbreviation	Total catch	Catch per set	Frequency in catch
Sculpins	Cottidae	Leptocottus armatus	Pacific staghorn sculpin	STAG	13	0.72	22.2%
		Clinocottus acuticeps	Sharpnose sculpin	SHARPNOSE	19	1.06	27.8%
		Myoxocephalus polyacanthocephalus	Great sculpin	GRT SCULP	21	1.17	44.4%
	Liparidae	Snailfish spp	Unidentified snailfish species	SNAILFISH	2	0.11	11.1%
Sea perches	Embiotocidae	Cymatogaster aggregata	Shiner perch	SHINER	2	0.11	5.6%
Sticklebacks	Gasterosteidae	Gasterosteus aculeatus	Three spined stickleback	STICKL	5	0.28	16.7%
True cods	Gadidae	Other or unknown Cod	Unidentified true cod species	O/U COD	1	0.06	5.6%
		Theragra chalcogramma	Alaska pollock	POLLOCK	2	0.11	5.6%
		Microgadus proximus	Pacific tomcod	TOMCOD	4	0.22	5.6%