

Summary of Fish Catch Results for Seversons, 2008 and 2009

Skagit River System Cooperative Research Program

December 2012

Beach seine sampling for fish was conducted at Seversons 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*.

Seversons is located on the north side of Waldron Island within the San Juan Islands (Figure 1). Large net beach seines were primarily used at Seversons (along with two small net beach seine sets) after methods described in Skagit System Cooperative Research Department (2003). We made 16 beach seine sets over the two-year study period. Beach seining occurred monthly from April through September in 2008 and March through October in 2009.

The beach seine site within Seversons consisted of sand to gravel substrate, without vegetative cover (such as eelgrass, kelp or other macro algae). Average maximum water depth was 2.54 meters deep and average salinity was 28.5 parts per thousand within the area seined. Water temperature varied by month, but ranged from a low of 7.5 °C in March 2009 to a high of 14.2 °C in July 2008.

We caught a total of 41,548 fish from 39 different species or species groupings over the two-year study period, including three species of juvenile salmon and two species of forage fish (Table 1). The most abundant fish species was Pacific sand lance with a total catch of 34,243 fish (combined catch of 8 post-larval and 34,235 adult), present in 37.5 % of the beach seine sets. We kept count of Dungeness (16) and red rock crab (2) caught by seines, as these species are of commercial and recreational interest.

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>

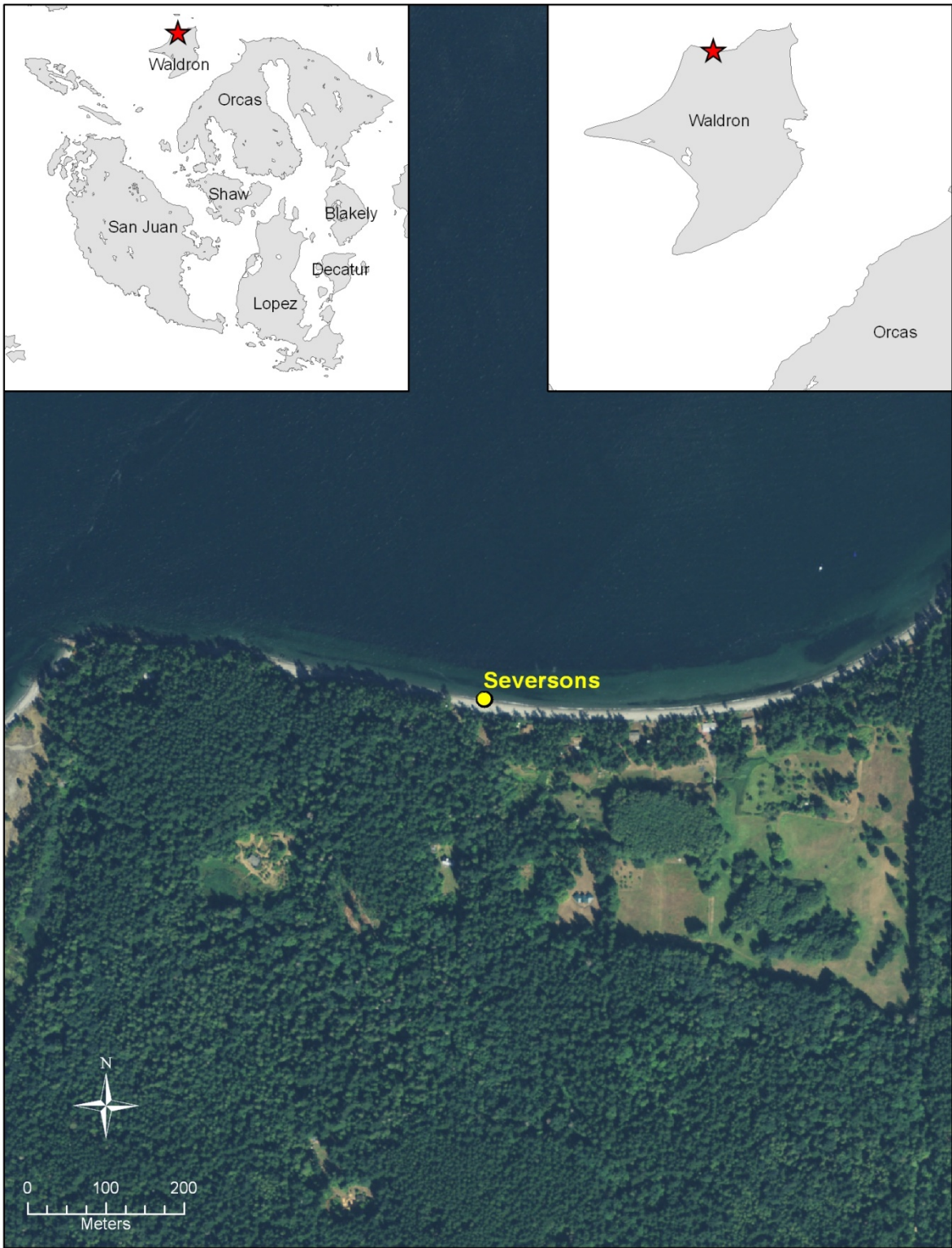


Figure 1. Location of Seversons beach seine site.

Table 1. Fish catch summary for Seversons 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
Crabs and shrimp	Cancridae	Cancer productus	Red rock crab	RED ROCK CRAB	2	0.13	6.3%
		Cancer magister <6.5"	Dungeness crab, sublegal size	DUNGI small	16	1.00	6.3%
Flatfish	Bothidae	Psettichthys melanostictus	Sand sole	SAND SOLE	11	0.69	12.5%
	Pleuronectiformes	Lepidopsetta bilineata	Rock sole	ROCK SOLE	1	0.06	6.3%
		Platichthys stellatus	Starry flounder	STARRY	1	0.06	6.3%
		Other or unknown flatfish	Unidentified flatfish species	O/U FLAT	45	2.81	18.8%
		Other or unknown flatfish post larval	Unidentified post larval flatfish species	O/U FLAT pl	157	9.81	12.5%
		Parophrys vetulus	English sole	ENG SOLE	260	16.25	75.0%
Forage fishes	Ammodytidae	Ammodytes hexapterus post larval	Pacific sand lance, post larval juvenile	LANCE pl	8	0.50	6.3%
		Ammodytes hexapterus adult body form	Pacific sand lance, adult body form	LANCE a	34235	2139.69	31.3%
	Clupeidae	Clupea pallasii adult body form	Pacific herring, adult body form	HERR a	9	0.56	12.5%
Greenlings /lingcod	Hexagrammidae	Ophiodon elongatus	Lingcod	LINGCOD	1	0.06	6.3%
		Hexagrammos lagocephalus	Rock greenling	ROCK GREEN-LING	6	0.38	6.3%
		Hexagrammos decagrammus	Kelp greenling	KELP GRNLNG	14	0.88	25.0%
		Hexagrammos spp	Unidentified greenling species	O/U GREEN-LING	15	0.94	12.5%
		Hexagrammos stelleri	Whitespot greenling	WHITE-SPOT GR	28	1.75	31.3%
Gunnels and Pricklebacks	Pholidae	Pholis schultzi	Red gunnel	RED GUNNEL	9	0.56	18.8%
		Pholis ornata	Saddleback gunnel	SADLBCK GUNL	40	2.50	43.8%
		Pholis laeta	Crescent gunnel	CRES GUNL	42	2.63	37.5%
		Apodichthys flavidus	Penpoint gunnel	PENPT GUNL	53	3.31	31.3%
	Stichaeidae	Lumpenus sagitta	Snake prickleback	SNAKE	3	0.19	12.5%
Other - marine	Agonidae	Agonus acipenserinus	Sturgeon poacher	STUR POACHER	1	0.06	6.3%
	Syngnathidae	Syngnathus griseolineatus	Bay pipefish	PIPEFISH	2	0.13	12.5%
Other - unknown	Unclassified Larval Fish	Larval Fish	Unidentified larval fish	O/U LARVAL FISH	1	0.06	6.3%
Pacific salmon	Salmonidae	Oncorhynchus tshawytscha age 0+ no external mark	Chinook salmon, wild subyearling	CK 0+ nem	18	1.13	25.0%
		Oncorhynchus gorbuscha 0+	Pink salmon, subyearling	PK 0+	2665	166.56	25.0%

Assemblage Groupings	Taxonomic group	Genus species, age & mark	Common name	Species abbreviation	Total catch	Catch per set	Frequency in catch
		Oncorhynchus keta age 0+	Chum salmon, subyearling	CH 0+	3059	191.19	37.5%
Sculpins	Cottidae	Scorpaenichthys marmoratus	Cabezon	CABEZON	1	0.06	6.3%
		Clinocottus acuticeps	Sharpnose sculpin	SHARP-NOSE	4	0.25	12.5%
		Artedius fenestralis	Padded sculpin	PADD SCULP	5	0.31	12.5%
		Hemilepidotus hemilepidotus	Red Irish lord	RED IRISH LORD	8	0.50	12.5%
		Blepsias cirrhosus	Silverspotted sculpin	SILVER SPOT SC	8	0.50	25.0%
		Gilbertidia sigalutes	Soft sculpin	SOFT SCULP	11	0.69	12.5%
		Myoxocephalus polyacanthocephalus	Great sculpin	GRT SCULP	12	0.75	37.5%
Sculpins	Cottidae	Leptocottus armatus	Pacific staghorn sculpin	STAG	69	4.31	81.3%
		Other or unknown Cottid	Unidentified sculpin species	O/U SCULP	126	7.88	25.0%
		Enophrys bison	Buffalo sculpin	BUFF	174	10.88	50.0%
		Nautichthys oculofasciatus	Sailfin sculpin	SAILFIN	1	0.06	6.3%
Sea perches	Embiotocidae	Embiotoca lateralis	Striped seaperch	STRIPED	9	0.56	25.0%
		Cymatogaster aggregata	Shiner perch	SHINER	43	2.69	31.3%
True cods	Gadidae	Microgadus proximus	Pacific tomcod	TOMCOD	3	0.19	6.3%
		Other or unknown Cod	Unidentified true cod species	O/U COD	45	2.81	18.8%
		Gadus macrocephalus	Pacific cod	PACIFIC COD	345	21.56	6.3%