

Summary of Fish Catch Results for Runstad Cove, 2008 and 2009

Skagit River System Cooperative Research Program

May 2012

Beach seine sampling for fish was conducted at Runstad 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*.

Runstad Cove is located on the southeast side of Blakely Island within the San Juan Islands (Figure 1). Large beach seine nets were used at Runstad Cove after methods described in Skagit System Cooperative Research Department (2003). We made 14 beach seine sets over the two-year study period. Beach seining occurred monthly from March through August 2008 and March through October 2009.

The beach seine site at Runstad Cove consisted of gravel to mixed coarse substrate. Eelgrass or macro algae were present on 64% of sampling days. Average maximum water depth was 2.2 meters and average salinity was 30.4 parts per thousand within the area seined. Water temperatures varied by month, ranging from approximately 8 °C in March to peaks of over 13 °C in July of each year.

We caught a total of 2,512 fish from 37 different species or species groupings over the two-year study period, including three species of juvenile salmon and three species of forage fish (Table 1). We kept count of Dungeness crab (23) caught by seines, as this species is 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>

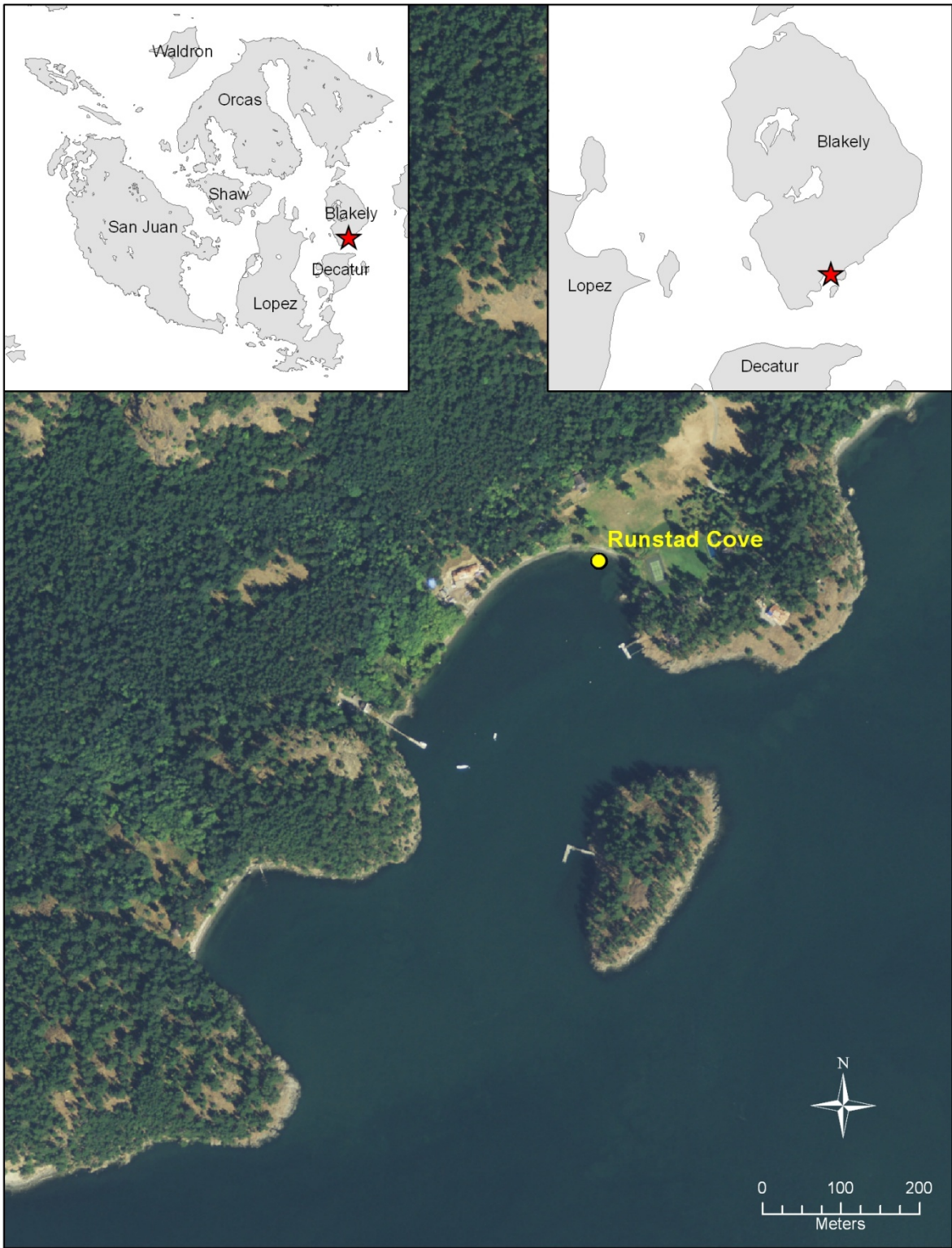


Figure 1. Location of Runstad Cove beach seine site.

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

Assemblage Groupings	Taxonomic group	Genus species, age & mark	Common name	Total catch	Catch per set	Frequency in catch
Crabs	Cancridae	Cancer magister <6.5"	Dungeness crab, sublegal size	23	1.64	42.9%
Flatfish	Pleuronectiformes	Parophrys vetulus	English sole	3	0.21	7.1%
		Isopsetta isolepis	Butter sole	2	0.14	7.1%
		Other or unknown flatfish	Unidentified flatfish species	1	0.07	7.1%
		Other or unknown flatfish post larval	Unidentified post larval flatfish species	1	0.07	7.1%
Forage fishes	Clupeidae	Clupea pallasii adult body form	Pacific herring, adult body form	1117	79.79	21.4%
	Osmeridae	Hypomesus pretiosus post larval	Surf smelt, post larval juvenile	41	2.93	7.1%
		Hypomesus pretiosus adult body form	Surf smelt, adult body form	14	1.00	7.1%
	Ammodytidae	Ammodytes hexapterus adult body form	Pacific sand lance, adult body form	2	0.14	7.1%
Greenlings/lingcod	Hexagrammidae	Hexagrammos stelleri	Whitespot greenling	28	2.00	28.6%
		Hexagrammos spp	Unidentified greenling species	21	1.50	50.0%
Gunnels and Pricklebacks	Pholidae	Unidentified Gunnel Species	Unidentified gunnel species	71	5.07	35.7%
	Stichaeidae	Lumpenus sagitta	Snake prickleback	42	3.00	42.9%
	Pholidae	Pholis ornata	Saddleback gunnel	28	2.00	21.4%
		Apodichthys flavidus	Penpoint gunnel	18	1.29	21.4%
		Pholis laeta	Crescent gunnel	13	0.93	28.6%
Other – marine	Aulorhynchidae	Aulorhynchus flavidus	Tubesnout	2	0.14	14.3%
	Syngnathidae	Syngnathus griseolineatus	Bay pipefish	1	0.07	7.1%
Other - unknown	Unclassified Larval Fish	Larval Fish	Unidentified larval fish	1	0.07	7.1%
Pacific salmon	Salmonidae	Oncorhynchus keta age 0+	Chum salmon, subyearling	169	12.07	28.6%
		Oncorhynchus gorbuscha 0+	Pink salmon, subyearling	57	4.07	35.7%
		Oncorhynchus tshawytscha age 0+ no external mark	Chinook salmon, wild subyearling	3	0.21	21.4%
Sculpins	Cottidae	Other or unknown Cottid	Unidentified sculpin species	449	32.07	57.1%
		Myoxocephalus polyacanthocephalus	Great sculpin	131	9.36	71.4%
		Gilbertidia sigalutes	Soft sculpin	50	3.57	35.7%
		Leptocottus armatus	Pacific staghorn sculpin	34	2.43	64.3%
		Arteidius fenestralis	Padded sculpin	16	1.14	35.7%
		Blepsias cirrhosus	Silverspotted sculpin	16	1.14	28.6%
		Enophrys bison	Buffalo sculpin	12	0.86	35.7%
		Clinocottus acuticeps	Sharpnose sculpin	12	0.86	28.6%
		Hemilepidotus hemilepidotus	Red Irish lord	8	0.57	21.4%
	Liparidae	Snailfish spp	Unidentified snailfish species	4	0.29	14.3%
	Hemipteridae	Nautichthys oculofasciatus	Sailfin sculpin	3	0.21	7.1%
	Cottidae	Oligocottus maculosus	Tidepool sculpin	1	0.07	7.1%
Sea perches	Embiotocidae	Cymatogaster aggregata	Shiner perch	17	1.21	35.7%
		Embiotoca lateralis	Striped seaperch	1	0.07	7.1%
Sticklebacks	Gasterosteidae	Gasterosteus aculeatus	Three spined stickleback	23	1.64	50.0%
True cods	Gadidae	Microgadus proximus	Pacific tomcod	55	3.93	28.6%
		Other or unknown Cod	Unidentified true cod species	37	2.64	14.3%
		Theragra chalcogramma	Alaska pollock	8	0.57	7.1%