

Summary of Fish Catch Results for Jones Island S, 2009

Skagit River System Cooperative Research Program

December 2012

Beach seine sampling for fish was conducted at Jones Island S 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*.

Jones Island S is located on the south side of Jones Island State Park within the San Juan Islands (Figure 1). Large net beach seines were used at Jones Island S after methods described in Skagit System Cooperative Research Department (2003). We made 9 beach seine sets over the one-year study period. Beach seining occurred monthly from April through September 2009.

The beach seine site at Jones Island S varied from sand to gravel to mixed coarse substrate, without vegetative cover 56% of the time, covered with eelgrass 33% of the time. Average maximum water depth was 2.59 meters and the average salinity was 27.8 parts per thousand within the area seined. Water temperature varied by month, but ranged from a low of 8.4 °C in April to a high of 13.9 °C in August.

At Jones Island S we caught a total of 1,930 fish from 31 different species or species groupings over the one-year study period, including two species of juvenile salmon and one species of forage fish (Table 1). The most abundant fish species was snake prickleback with a catch of 985 fish, present in 66.7% of the beach seine sets. They accounted for 51.0% of the total catch. We kept count of Dungeness crab (55) and red rock crab (3) 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>

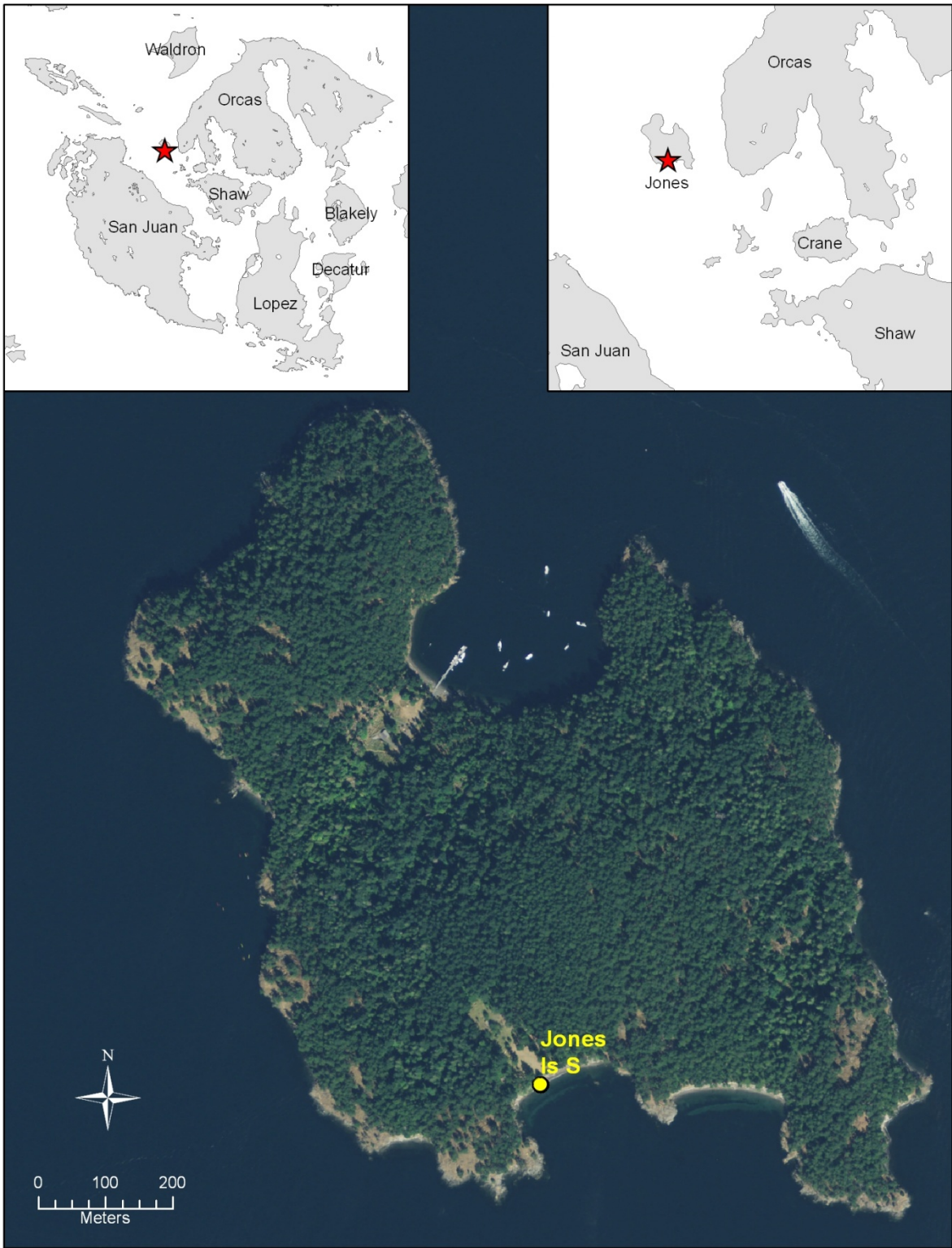


Figure 1. Location of Jones Island S beach seine site.

Table 1. Fish catch summary for Jones Island S beach seining, 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	3	0.33	33.3%
		Cancer magister <6.5"	Dungeness crab, sublegal size	DUNGI small	55	6.11	77.8%
Flatfish	Pleuronectiformes	Lepidopsetta bilineata	Rock sole	ROCK SOLE	1	0.11	11.1%
		Other or unknown flatfish	Unidentified flatfish species	O/U FLAT	2	0.22	11.1%
		Platichthys stellatus	Starry flounder	STARRY	7	0.78	55.6%
		Parophrys vetulus	English sole	ENG SOLE	107	11.89	100.0%
Forage fishes	Ammodytidae	Ammodytes hexapterus adult body form	Pacific sand lance, adult body form	LANCE a	80	8.89	11.1%
Greenlings/lingcod	Hexagrammidae	Hexagrammos spp	Unidentified greenling species	O/U GREENLING	2	0.22	22.2%
		Hexagrammos decagrammus	Kelp greenling	KELP GRNLNG	16	1.78	11.1%
		Hexagrammos stelleri	Whitespot greenling	WHITESPOT GR	82	9.11	88.9%
Gunnels and Pricklebacks	Pholidae	Unidentified Gunnel Species	Unidentified gunnel species	GUNNEL	3	0.33	11.1%
		Pholis laeta	Crescent gunnel	CRES GUNL	76	8.44	66.7%
		Apodichthys flavidus	Penpoint gunnel	PENPT GUNL	79	8.78	100.0%
		Pholis ornata	Saddleback gunnel	SADLBCK GUNL	139	15.44	66.7%
	Stichaeidae	Lumpenus sagitta	Snake prickleback	SNAKE	985	109.44	66.7%
Other - marine	Aulorhynchidae	Aulorhynchus flavidus	Tube snout	TUBESNT	4	0.44	11.1%
	Syngnathidae	Syngnathus griseolineatus	Bay pipefish	PIPEFISH	3	0.33	33.3%
Pacific salmon	Salmonidae	Oncorhynchus kisutch age 1+ cwt only	Coho salmon, hatchery marked yearling	CO 1+ ucwt	1	0.11	11.1%
		Oncorhynchus keta age 0+	Chum salmon, subyearling	CH 0+	89	9.89	44.4%
Sculpins	Cottidae	Hemilepidotus spinosus	Brown Irish lord	BROWN IR LORD	1	0.11	11.1%
		Hemilepidotus hemilepidotus	Red Irish lord	RED IRISH LORD	3	0.33	22.2%
		Other or unknown Cottid	Unidentified sculpin species	O/U SCULP	4	0.44	11.1%
		Blepsias cirrhosus	Silverspotted sculpin	SILVER SPOT SC	4	0.44	22.2%
		Clinocottus acuticeps	Sharpnose sculpin	SHARPNOSE	6	0.67	11.1%

Assemblage Groupings	Taxonomic group	Genus species, age & mark	Common name	Species abbreviation	Total catch	Catch per set	Frequency in catch
		Artedius fenestralis	Padded sculpin	PADD SCULP	34	3.78	55.6%
		Myoxocephalus polyacanthocephalus	Great sculpin	GRT SCULP	42	4.67	88.9%
		Leptocottus armatus	Pacific staghorn sculpin	STAG	48	5.33	100.0%
	Liparidae	Snailfish spp	Unidentified snailfish species	SNAILFISH	1	0.11	11.1%
Sea perches	Embiotocidae	Cymatogaster aggregata	Shiner perch	SHINER	54	6.00	55.6%
Sticklebacks	Gasterosteidae	Gasterosteus aculeatus	Three spined stickleback	STICKL	2	0.22	11.1%
True cods	Gadidae	Other or unknown Cod	Unidentified true cod species	O/U COD	3	0.33	11.1%
		Theragra chalcogramma	Alaska pollock	POLLOCK	3	0.33	11.1%
		Gadus macrocephalus	Pacific cod	PACIFIC COD	49	5.44	33.3%