

# Summary of Fish Catch Results for Jefferts Beach, 2008 and 2009

Skagit River System Cooperative Research Program

December 2012

Beach seine sampling for fish was conducted at Jefferts Beach 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*.

Jefferts Beach is located along the south side of Neck Point on the west side of Shaw Island within the San Juan Islands (Figure 1). Small net beach seines were used at Jefferts Beach after methods described in Skagit System Cooperative Research Department (2003). We made 28 beach seine sets over the two-year study period. Beach seining occurred monthly from March through September in both 2008 and 2009.

The beach seine site within Jefferts Beach varied from mixed fines to sand to mixed coarse substrate, usually without vegetative cover (such as eelgrass, kelp or other macro algae). Average maximum water depth was 0.69 m; average salinity was 31.3 parts per thousand within the area seined. Water temperature varied by month, ranging from a low of 6.3 °C in March 2009 to a high of 14.3 °C in July 2009.

At Jefferts Beach we caught 1,899 fish from 20 different species or species groupings over the two-year study period, including two species of juvenile salmon. Forage fish were not caught (Table 1). The most abundant fish species was Pacific staghorn sculpin with a catch of 1,439 fish, present in every beach seine set, accounting for 75.8% of the total catch. We kept count of Dungeness crab (43) 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>

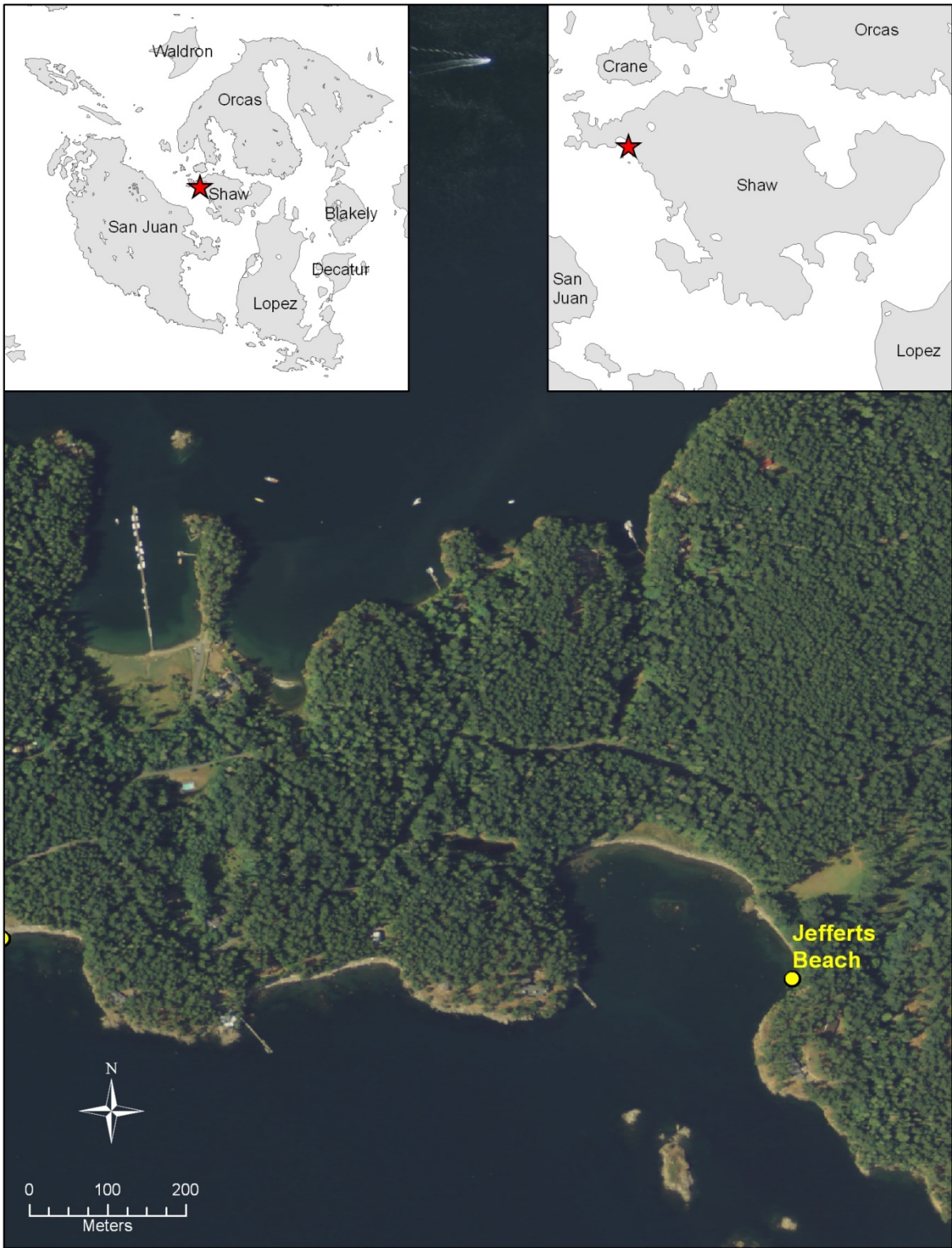


Figure 1. Location of Jefferts Beach beach seine site.

Table 1. Fish catch summary for Jefferts Beach 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 magister <6.5"	Dungeness crab, sublegal size	DUNGI small	43	1.79	8.3%
Flatfish	Pleuronectiformes	Other or unknown flatfish post larval	Unidentified post larval flatfish species	O/U FLAT pl	2	0.08	8.3%
		Parophrys vetulus	English sole	ENG SOLE	8	0.33	8.3%
		Other or unknown flatfish	Unidentified flatfish species	O/U FLAT	36	1.50	12.5%
		Platichthys stellatus	Starry flounder	STARRY	50	2.08	45.8%
Greenlings/lingcod	Hexagrammidae	Hexagrammos spp	Unidentified greenling species	O/U GREENLING	4	0.17	16.7%
		Unidentified Gunnel Species	Unidentified gunnel species	GUNNEL	4	0.17	8.3%
Gunnels and Pricklebacks	Pholidae	Pholis ornata	Saddleback gunnel	SADLBCK GUNL	16	0.67	12.5%
		Lumpenus sagitta	Snake prickleback	SNAKE	5	0.21	12.5%
Other - marine	Agonidae	Other or unknown Agonid	Unidentified poacher species	O/U POACHER	1	0.04	4.2%
Pacific salmon	Salmonidae	Oncorhynchus gorbuscha age 0+	Pink salmon, subyearling	PK 0+	11	0.46	12.5%
		Oncorhynchus keta age 0+	Chum salmon, subyearling	CH 0+	116	4.83	25.0%
Rockfish	Scorpaenidae	Other or unknown Scorpaenids	Unidentified rockfish species	O/U ROCKFISH	1	0.04	4.2%
Sculpins	Cottidae	Gilbertidia sigalutes	Soft sculpin	SOFT SCULP	1	0.04	4.2%
		Blepsias cirrhosus	Silverspotted sculpin	SILVER SPOT SC	2	0.08	4.2%
		Myoxocephalus polyacanthocephalus	Great sculpin	GRT SCULP	14	0.58	16.7%
		Other or unknown Cottid	Unidentified sculpin species	O/U SCULP	36	1.50	20.8%
		Clinocottus acuticeps	Sharpnose sculpin	SHARPNOSE	114	4.75	45.8%
		Leptocottus armatus	Pacific staghorn sculpin	STAG	1439	59.96	100.0%
	Liparidae	Snailfish spp	Unidentified snailfish species	SNAILFISH	1	0.04	4.2%
Sea perches	Embiotocidae	Cymatogaster aggregata	Shiner perch	SHINER	9	0.38	4.2%
Sticklebacks	Gasterosteidae	Gasterosteus aculeatus	Three spined stickleback	STICKL	29	1.21	16.7%