

Summary of Fish Catch Results for Nordhoff Beach, 2008 and 2009

Skagit River System Cooperative Research Program

January 2013

Beach seine sampling for fish was conducted at Nordhoff 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*.

Nordhoff Beach is located on the west side of Lopez Island within the San Juan Islands (Figure 1). Large and small net beach seines were used at Nordhoff Beach after methods described in Skagit System Cooperative Research Department (2003). We made 14 beach seine sets (13 large net and 1 small net) over the two-year study period. Beach seining occurred monthly March through September (except in May) of 2008, and monthly March through October 2009.

The beach seine site at Nordhoff Beach varied from sand to mixed coarse and cobble substrate, without vegetative cover 57% of the time, and with the dominant vegetative cover being eelgrass 36% of the time and mixed algae 1% of the time. Average maximum water depth was 2.37 meters and average salinity was 31.2 parts per thousand within the area seined. The water temperature varied by month, ranging from a low of 7.0 °C in March 2008 to a high of 11.5 °C in September 2009.

At Nordhoff Beach we caught a total of 7,465 fish from 42 different species or species groupings over the two-year study period, including two species of juvenile salmon and three species of forage fish (Table 1). The most abundant fish species was Pacific herring with a catch of 5,750 fish, present in 7.1% of the beach seine sets. They were all caught in one set in October 2009 and accounted for 77.0% of the 2-year catch total. We kept count of Dungeness crab (45) 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>

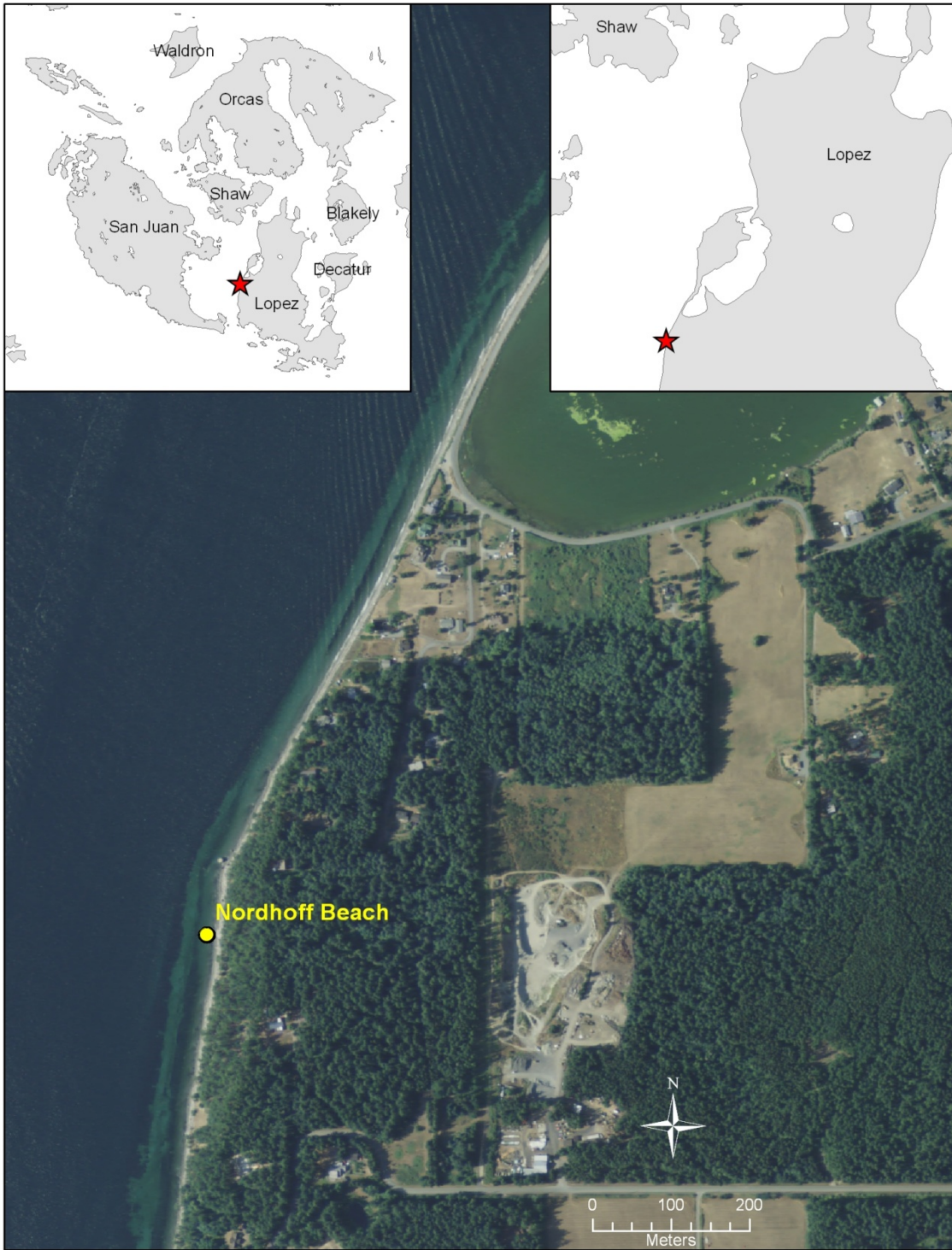


Figure 1. Location of Nordhoff Beach beach seine site.

Assemblage Groupings	Taxonomic group	Genus species, age & mark	Common name	Species abbreviation	Total catch	Catch per set	Frequency in catch
Rockfish	Scorpaenidae	Other or unknown Scorpaenids	Unidentified rockfish species	O/U ROCKFISH	2	0.14	7.1%
Sculpins	Cottidae	Arteidius fenestralis	Padded sculpin	PADD SCULP	2	0.14	14.3%
		Hemilepidotus hemilepidotus	Red Irish lord	RED IRISH LORD	4	0.29	7.1%
		Gilbertidia sigalutes	Soft sculpin	SOFT SCULP	8	0.57	14.3%
		Clinocottus acuticeps	Sharpnose sculpin	SHARPNOSE	11	0.79	35.7%
		Blepsias cirrhosus	Silverspotted sculpin	SILVER SPOT SC	11	0.79	50.0%
		Enophrys bison	Buffalo sculpin	BUFF	14	1.00	50.0%
		Other or unknown Cottid	Unidentified sculpin species	O/U SCULP	43	3.07	42.9%
		Leptocottus armatus	Pacific staghorn sculpin	STAG	57	4.07	78.6%
		Myoxocephalus polyacanthocephalus	Great sculpin	GRT SCULP	269	19.21	64.3%
		Sculpins	Hemitripterae	Nautichthys oculofasciatus	Sailfin sculpin	SAILFIN	5
Liparidae	Snailfish spp		Unidentified snailfish species	SNAILFISH	18	1.29	21.4%
Sea perches	Embiotocidae	Cymatogaster aggregata	Shiner perch	SHINER	4	0.29	14.3%
Sticklebacks	Gasterosteidae	Gasterosteus aculeatus	Three spined stickleback	STICKL	10	0.71	21.4%
True cods	Gadidae	Other or unknown Cod	Unidentified true cod species	O/U COD	1	0.07	7.1%
		Gadus macrocephalus	Pacific cod	PACIFIC COD	1	0.07	7.1%
		Theragra chalcogramma	Alaska pollock	POLLOCK	1	0.07	7.1%
		Microgadus proximus	Pacific tomcod	TOMCOD	77	5.50	35.7%