## Summary of Fish Catch Results for Neck Pt Spit, 2008 and 2009

Skagit River System Cooperative Research Program

## January 2013

Beach seine sampling for fish was conducted at Neck Pt Spit 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.

Neck Pt Spit is located on the west side of Shaw Island within the San Juan Islands (Figure 1). Small net beach seines were used at Neck Pt Spit after methods described in Skagit System Cooperative Research Department (2003). We made 15 beach seine sets over the two-year study period. Beach seining occurred in April, and then monthly June through September of 2008, and monthly March through September in 2009.

The beach seine site at Neck Pt Spit varied from gravel to mixed coarse substrate, usually with mixed algae as the dominant cover (53% of the time). Average maximum water depth was 0.81 meters and the average salinity was 31.5 parts per thousand within the area seined. The water temperature varied by month, ranging from a low of 10.5 °C in both July 2008 and May 2009, to a high of 12.9 °C in July 2009.

At Neck Pt Spit we caught a total of 473 fish from 26 different species or species groupings over the two-year study period, including three species of juvenile salmon (Table 1). Forage fish were not caught. The most abundant fish species was saddleback gunnel with a catch of 80 fish, present in 46.7% of beach seine sets. They accounted for 16.9% of the total catch. We kept count of Dungeness crab (5) 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: <u>http://www.skagitcoop.org/documents</u>

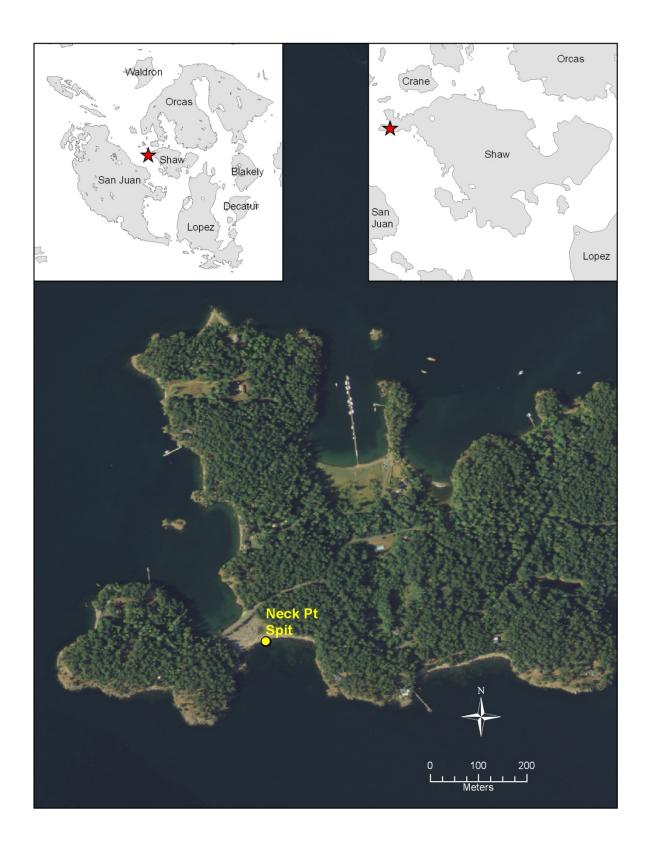


Figure 1. Location of Neck Pt Spit beach seine site.

Groupings     group     invark     Common and problem     abbreviation     catch problem       Crabs and shrinp     Cancridae     Cancer magister c6.5"     crab, sublegal crab, sublegal problem     crab, sublem     crab, su	Assemblage	Taxonomic	Genus species, age &		Species	Total	Catch	Frequency
Cancridue shrimp     Cancridue c6.5"     Dungeness res     Punki size     Dunki small     5     0.33     13.3%       Greenlings/ lingcod     Hexagrammidae     Hexagrammos spp     species     GREPNLING     6     0.40     20.0%       Greenlings/ lingcod     Hexagrammos spp     species     GREPNLING     6     0.40     20.0%       Markagrammos spp     Profis     actional species     GREPNLING     6     0.40     20.0%       Gunnels and Prickleback     Pholis laeta     gunel     Crescent gunel     Crescent gunel     CRES GUNL     18     1.20     33.3%       Pholis laeta     gunel     PENPT GUNL     19     1.27     46.7%       Mundelback     SALDECK      3.47     33.3%        Pholis ornata     gunel     GUNNEL     5     0.33     6.7%       Other - marine     Syngnathidae     Syngnathiae     prickleback     SNAE     5     0.33     6.7%       Salmonidae     Syngnathidae     Soropacnidae     Soropacnidae     Chinook     sattresclenon, wild subyearl				Common name				
Claic and Lancer magister scheme     cnsb, subgeal scheme     orthogeal scheme     orthogeal scheme       Greenlings' lingcod     Hexagrammota scheme     Unidentified greenling species     OU     Second     OU       Greenlings' lingcod     Hexagrammota scheme     Second     OU     Second     OU     Second     OU       Greenlings' lingcod     Hexagrammota scheme     Second     Crescent     Crescent     Second     Crescent     Second		8						
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Age 0+     subyearing     CH 0+     4     0.27     6.7%       Oncorhynchus gorbuscha age 0+     Pink salmon, subyearing     PK 0+     73     4.87     26.7%       Rockfish     Scorpaenidae     Other or unknown     rockfish     O/U     -     -       Scorpaenidae     Other or unknown     rockfish     O/U     -     -     -       Hemilepidotus     Brown Irish     BROWN IR     -     -     -     -       Spinosus     lord     LORD     1     0.07     6.7%       Artedius fenestralis     Padded sculpin     PADD SCULP     1     0.07     6.7%       Other or unknown     Sulperspotted     SILVERS POT     -     -     -       Cottidae     Blepsias cirrhosus     sculpin secies     OU SCULP     8     0.53     20.0%       Myoxocephalus polyacanthocephalus     Great sculpin     GRT SCULP     31     2.07     40.0%       Myoxocephalus polyacanthocephalus     Great sculpin     SHARPNOSE     32     2.13     13.3%       Liparidae			Oncorhynchus keta					
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						5	0.20	0.770
aggregata   Shiner perch   SHINER   50   3.33   20.0%			aggregata	Shiner perch	SHINER	50	3.33	20.0%

## Table 1. Fish catch summary for Neck Pt Spit beach seining, 2008 and 2009.

Assemblage	Taxonomic	Genus species, age &		Species	Total	Catch	Frequency
Groupings	group	mark	Common name	abbreviation	catch	per set	in catch
Sticklebacks	Gasterosteidae	Gasterosteus aculeatus	Three spined stickleback	STICKL	19	1.27	26.7%
True cods	Gadidae	Microgadus proximus	Pacific tomcod	TOMCOD	5	0.33	6.7%