

Pendrell Sound Monitoring Project – data for 24th August samples 2010

Reporting date 30th August 2010

(A) Qualitative bivalve larval summary

Two 5-minute plankton tows at a depth of 1-2 m at each station were collected by pulling a plankton net slowly beside a boat at a rate of 0.5 m/s. Samples were spun to condense larvae etc. in the centre and qualitative estimates were made from these condensed samples.

Biomass (low, medium, high)			
Station	2	4	6
D hinge	Low	Low	Low
Umbone	Low	Low	Low
Eyed	Low	Low	Low

In terms of percentages of different stages present:

- 8% eggs (could be bivalve)
- 0% late straight hinge stage
- 4% early umbo stage (10 to 14 days to settlement = approx 22nd to 26th August)
- 15% mid umbo stage (6 to 10 days to settlement = approx 18th to 22nd August)
- 53% late umbo (3 to 4 days to settlement = 15th / 16th August)
- 20% eyed larvae

So although there was a large spawning event recently, there was not a significant amount of larvae in these samples as all Stations sampled had low numbers of bivalve larvae present. Station 4 contained the most larvae, followed by Station 6, with the least being observed at Station 2. Also note that there are larvae of fouling organisms present (barnacles, mussels and byozoans).

The vast majority of bivalves present in the samples were Pacific oyster larvae, with a few mussels and clams also present in small numbers.

This information, previous reports and project details can also be found at

<http://www.viu.ca/csr/PendrellSoundMonitoringProject2010.asp>

and

<http://www.bcsqa.ca/>

(B) Settlement plates

Settlement plate collectors are located at Site 2 and 4. Each week one plate from each site will be removed and the number of spat on the upper and lower surface of the plate will be counted. In addition two oyster shells were provided (the shell labeled overnight from the 23rd to the 24th August had one settled oyster larvae).

Settlement Plate: Bivalves Present

Site	Upper	Lower
2	16	38
4	0	4
Oyster Shell*	677	329

*Oyster shell numbers are approximate and time of planning / exposure for settlement unknown.

(C) Phytoplankton report

Sample taken by submerging bottle elbow deep in water, removing the lid and letting the bottle fill up, replace the lid tightly then bring to the surface and preservation in 1% Lugol's solution.

Samples are being analyzed and will be provided in a following document.

(D) Site conditions

Sampling Date: August 24, 2010		Crew: Ed		Current Weather: Clear and Calm		Weather Past week: Mixed		
Site	Salinity	Oxygen	Wind	Waves	Air Temp (°C)	Water Temp (°C)	Secchi Disk Down	Secchi Disk Up
2	19 ppt	102%	-	-	19.5	18.2	7m	7m
4	18 ppt	99%	-	-	18.7	18.4	6m	6m
6	18 ppt	100%	-	-	16.2	18.6	12m	12m

Adult Oyster Condition:

Oyster 1 spent

Oyster 2 spent

General Comments:

(E) Quantitative plankton results (numbers of individuals per 5 minute tow at rate of 0.5m/s)

Plankton Surface Tows

Sample Date:	Aug 28					
	Aug 24 2010			Analysis Date: 2010		
	Station 2		Station 4		Station 6	
Time:	Tow A: 8:07AM	Tow B: 8:07AM	Tow A: 8:36AM	Tow B: 8:36AM	Tow A: 9:28AM	Tow B: 9:28AM
<u>Zooplankton</u>						
Cladocerans	0	0	640	0	1480	840
Copepods	10040	12400	23560	10480	44280	67280
Crab Larvae	2000	5760	1280	1800	3280	1080
Ctenophores	0	0	0	0	0	0
Eggs	0	0	200	400	0	0
Fish	0	0	0	0	0	0
Foraminifera	0	0	0	0	0	0
Gastropods	0	0	0	0	0	0
Jellyfish	0	0	0	0	0	0
Polychaetes	40	40	0	0	0	0
Rotifers	0	0	0	0	0	0
Bryozoan larvae	280	440	160	80	0	80
Larvaceans	760	0	640	200	80	120
<u>Bankia setacea (shipworms)</u>						
Early	0	0	0	0	0	0
Mid	0	0	0	0	0	0
Late	0	0	0	0	0	0
<u>Mytilus edulis (mussel)</u>						
Early	0	0	0	0	0	0
Mid	0	0	0	0	0	80
Late	0	40	40	80	0	0
<u>Ostrea lurida (native oyster)</u>						
Early	0	0	0	0	0	0
Mid	0	0	0	0	40	0
Late	0	0	0	0	0	0
<u>Clams</u>						
Early	0	0	0	0	0	0
Mid	0	0	0	0	0	0
Late	0	0	0	0	0	0
<u>Crassostrea gigas (Pacific oyster)</u>						
SH	0	0	0	0	0	0
EU	0	0	0	0	0	0
MU	0	0	0	0	0	0
LU	0	0	0	0	0	0
Eyed	0	0	0	0	0	0

