

DAILY SCIENCE



Trip #5
27 June - 2 July

2016-09

VESSEL:

From: 25 Feb 2016

to:

Salacia

PROJECT(S):

Strait of Georgia Zooplankton

Water Properties Group
Fisheries and Oceans Canada
Institute of Ocean Sciences
Ocean Sciences Division
North Saanich, BC, Canada

WaterProperties.ca

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page _____ of _____

Month <u>JUNE</u>		Year <u>2018</u>		Ship <u>Swire</u>		Cruise ID <u>2018-09</u>									
Day	Station Name	Time <u>LOCAL</u> (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
27	59	0954	BE	CTD	-	149	48 37 78	123 14 48	227		-	.	MB	✓	
		10 02	BO				48 32 78	123 14 48		217					
		10 05	BO				48 37 75	123 14 40							
	59	10 10	RE	NET	-	150	48 32 75	123 14 40	227		-	.	MB		Winch stopping periodically
		10 19	BO				48 32 73	123 14 40		217					on way up
		10 26	EN				48 37 79	123 14 42							
27	46	12 40	BE	CTD	-	151	48 51 32	123 10 70	176		-	-	MB	✓	
		12 45	BO				48 51 26	123 10 66		166					
		12 48	EN				48 51 22	123 10 64							
	46	12 54	RE	NET	-	152	48 51 33	123 10 78	176		-	-	MB		Winch stopping
		13 01	BO				48 51 26	123 10 74		166					two stops
		13 06	EN				48 51 27	123 10 70							STOPPED @ 70, arrived @ 74.5
27	41	14 54	RE	CTD	MSR	153	49 3 24	123 22 31	245		55	1	MB	✓	2x deep schools
		15 01	BO				49 3 12	123 22 31		235					Winch struggling up.
		15 13	EN				49 2 97	123 22 33							had to reduce Ts 60%
27	41	15 15	RE	BOT	MSR	154	49 2 92	123 22 33	245	5	56-57	2	MB		56 - 5m shrimp 60ml 57 - 0m shrimp + Phy 60ml
27	41	15 23	BE	NET	.	155	49 3 29	123 22 29	245		-	-	MB		
		15 34	BO				49 3 17	123 22 34		235					Winch very slow up.
		15 44	EN				49 3 09	123 22 34							

Cast Type:
 BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 _____ = _____

Bottle Firing Method:
 US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes: _____

Time Code:
 BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 7 July 2014

START OF 27500 → 100000, sensor 2.000000 BREEZE.

- no data collected, batteries low, could not connect to computer, changed out batteries, new batteries @ 14.5V (4.25V) → able to connect now.
- Winch @ full speed ~ 0.5 m/s, had to slow to 80% to stop winch from lapping off.

JUST OUTSIDE THE FRESHWATER LINE.

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page _____ of _____

Month <u>JUNE</u>				Year <u>2016</u>			Ship <u>Isis 3</u>			Cruise ID <u>2016-09</u>					Comments
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	
							Latitude	Longitude							
27	G601	1800	BE	CTD	-	156	49 15 15	123 45 11	400		-	.	MB	✓	Wind totally stalled at bottom
		1812	BO				49 15 15	123 45 11		390					
		1826	EN				49 15 00	123 45 18							
27	G601	1829	BE	BOT	MSC-	157	49 15 01	123 45 20	400	5	58-59	2	MB		58-2x 5m chl 60ml 59-2x 0.1m chl + Phy 60ml
27	G601	1833	BE	NET	-	158	49 15 02	123 45 23	400				MB		
		1847	BO				49 15 07	123 45 30		390					
		1856	EN				49 15 11	123 45 34							
28	CPFI	0816	BE	CTD	-	159	49 21 99	124 4 92	245		-	.	MB	✓	
		0824	BO				49 21 96	124 4 88		235					
		0829	EN				49 21 95	124 4 84							
28	CPFI	0831	BE	NET	-	160	49 21 94	124 4 83	245				MB		
		0844	BO				49 21 91	124 4 76		235					
		0849	EN				49 21 90	124 4 76							
28	CPFI	1046	BE	CTD	MSC-	161	49 27 91	124 29 98	325		60	1	MB	✓	2x DEEP SAL
		1055	BO				49 27 86	124 29 98		315					
		1105	EN				49 27 86	124 29 99							
28	PE2	1107	BE	NET		162	49 27 76	124 29 99	325				MB		
		1122	BO				49 27 67	124 30 01		315					
		1129	EN				49 27 65	124 30 03							

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop

MOR = Mooring

NET = Plankton Net Haul

DRF = Drifter

_____ = _____

Bottle Firing Method:

US = Up / Stop

UN = Up / No stop

DN = Down / No stop

Notes: _____

Time Code:

BE = Beginning Time of Cast

BO = Bottom Time of Cast

EN = End Time of Cast

DE = Deployment Time

MR = Messenger Release Time

RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

Produced by the Water Properties Group, IOS

 WaterProperties.ca
 Version: 7 July 2014

Readjusted motherboard, better

Leaky top cap on surface outlet

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page _____ of _____

Month <u>JUNE</u>				Year <u>2016</u>			Ship <u>S212C13</u>				Cruise ID <u>2016-09</u>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	Comments
							Latitude	Longitude							
28	BS11	12 46	BC	CTD	-	163	49 28 97	124 45 93	58			-	MB	✓	
		12 47	BO				49 28 97	124 45 95		48					
		12 48	EW				49 28 97	124 45 95							
28	BS11	12 50	BC	NET	-	164	49 28 96	124 45 96	58			-	MB		
		12 51	BO				49 28 95	124 45 92		48					
		12 52	EW				49 28 96	124 45 96							
28	11	15 06	BC	CTD	-	165	49 42 36	124 43 41	290				MB	✓	
		15 13	BO				49 42 36	124 43 41		280					
		15 19	EW				49 42 36	124 43 38							
28	11	15 21	BC	BOT	MSG	166	49 42 35	124 43 37	290	5	61-62	2	MB		61- 5m 2x chl 120mL 62- 0m 2x chl 1x 10mL
28	11	15 23	BC	NET	-	167	49 42 35	124 43 35	290				MB		
		15 34	BO				49 42 34	124 43 30		280					
		15 38	EW				49 42 33	124 43 29							
29	22	07 34	BC	CTD	MSG	168	49 40 17	124 16 30	353		63	1	MB	✓	2x DEEP SAL ^{SUNNY CLEAR SKY}
		07 42	BO				49 40 15	124 16 29		343					
		07 51	EW				49 40 09	124 16 29							
29	22	07 54	BC	NET	-	169	49 40 08	124 16 29	353			-	MB		
		08 07	BO				49 40 01	124 16 28		343					GEAR BOX LET GO ON WAY UP DROPPED
		09 23	EW				49 40 -	124 16 -							SWOOSH TO 29m

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop

MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

=

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 7 July 2014

This page is for any notes or observations

CATASTROPHIC FAILURE ON WINCH, PULLED IN NET BY HAND 290m $\rightarrow$ 0.
KY BROUGHT UP NEW GEAR BOX TO NAWAIMO, MET HER THERE AND CHANGED OUT $\approx$ 1400 29 JUN 2016

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page _____ of _____

Month <u>JUNE</u>				Year <u>2016</u>			Ship <u>Salacia</u>			Cruise ID <u>2016-09</u>					Comments
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Positional Information		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch Keepers	Trans. Cleaned	
							Latitude	Longitude							
30	38	0822	BE	CTD	MSG	170	49 12 08	123 26 41	300		64	1	MB	✓	2x Deep Sal
		0829	BO				49 12 12	123 26 41		290					new gear box working Some wobble in drive shafts
		0837	EN				49 12 17	123 26 39							
30	38	0839	BE	NET	-	171	49 12 19	123 26 39	300		-	-	MB		
		0851	BO				49 12 25	123 26 36		290					
		0856	EN				49 12 26	123 26 34							
30	40	0957	BE	CTD	-	172	49 12 55	123 36 55	146		-	-	MB	✓	Cast ends 70 ~ 90m block of data returned correct;
		0959	BO				49 12 63	123 36 55		136					
		1007	EN				49 12 64	123 36 55							
	40	1007	BE	NET	-	173	49 12 05	123 36 55	146		-	-	MB		Cast ends 70 ~ 90m block of data returned correct;
		1020	BO				49 12 05	123 36 55		136					
		1057	EN				49 12 05	123 36 55							
30	HARTSHORN	1252	BE	BOT	MSG	174	49 12 52	123 43 68		5	65-66	2	MB	-	Sam = 65 2x Cal 60m Sam = 66 2x Cal 60m
30	28	1313	BE	CTD	-	175	49 24 11	123 45 34	134		-	-	MB	✓	
		1315	BO				49 24 13	123 45 35		124					
		1317	EN				49 24 15	123 45 39							
30	28	1319	BE	NET	-	176	49 24 16	123 45 43	134		-	-	MB	-	
		1324	BO				49 24 18	123 45 47		124					
		1326	EN				49 24 18	123 45 49							

Cast Type:

BOT = Bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD
 SET = Fish Set

USW = Sea Water Loop
 MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter

Bottle Firing Method:

US = Up / Stop
 UN = Up / No stop
 DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast
 DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Transmissometer & Fluorometer are to be cleaned before each cast

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 7 July 2014

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 1 of

Month <u>June</u>				Year <u>2010</u>			Vessel <u>Salaschi</u>				Cruise ID				
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/FI Cleaned	Comments
177	24	30	14:55	BE	CTD	-	49° 30.36	124° 6.07	425		-	-	MB	☐ ☒	
			15:03	BO			49° 30.38	124° 6.11		415	-			☐ ☐	
			15:12	EN			49° 30.42	124° 6.16			-			☐ ☐	
178	24	30	15:16	BE	NET	-	49° 30.34	124° 6.06	425		-	-	MB	☐ ☐	
			15:30	BO			49° 30.36	124° 6.11		415	-			☐ ☐	
			15:39	EN			49° 30.38	124° 6.13			-			☐ ☐	
179	22	30	16:55	BE	CTD	-	49° 40.23	124° 16.30	353		-	-	MB	☐ ☒	Re-visit with fixed
			17:07	BO			49° 40.29	124° 16.37		343	-			☐ ☐	winch
			17:08	EN			49° 40.34	124° 16.42			-			☐ ☐	
180	22	30	17:12	BE	NET	-	49° 40.28	124° 16.37	353		-	-	MB	☐ ☐	
			17:20	BO			49° 40.35	124° 16.41		343	-			☐ ☐	
			17:28	EN			49° 40.37	124° 16.42			-			☐ ☐	
181	59	1	09:53	BE	CTD	-	48° 37.80	123° 14.56	225		-	-	MB	☐ ☒	HAPPY CANADA DAY!
			09:58	BO			48° 37.79	123° 14.56		215	-			☐ ☐	Re-visit since battery
			10:02	EN			48° 37.78	123° 14.56			-			☐ ☐	died in CTD on 1 st
182	59	1	10:03	BE	NET	-	48° 37.73	123° 14.57	225		-	-	MB	☐ ☐	attempt.
			10:11	BO			48° 37.64	123° 14.57		215	-			☐ ☐	
			10:15	EN			48° 37.62	123° 14.56			-			☐ ☐	
			:				.	.			-			☐ ☐	

Event Type:

BOT = Bottle cast (no CTD)
CTD = Standalone CTD
ROS = CTD in Rosette
SET = Fish Set

LOOP = Sea Water Loop

MOR = Mooring
NET = Plankton Net Haul
DRF = Drifter
=

Bottle Firing Method:

US = Up / Stop (default)
UN = Up / No stop
DN = Down / No stop

Notes:

Time Code:

BE = Beginning Time of Cast
BO = Bottom Time of Cast
EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time
MR = Messenger Release Time
RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 14 February 2013

This page is for any notes or observations

STEAM OUT OF NANAIMO 0500, OVERCAST/RAIN

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 2 of

Month <u>JULY</u>				Year <u>2016</u>			Vessel <u>S21252</u>			Cruise ID <u>2016-09</u>					
Event Number	Station Name	Day	Time (UTC)	Time Code	Event Type	Firing Method	Positional Latitude	Information Longitude	Bottom Depth	Max Pressure	Sample Serial Numbers	# of Bottles	Watch Keepers	Trns/Fl Cleaned	Comments
<u>183</u>	<u>GI-01</u>	<u>1</u>	<u>13:35</u>	<u>BE</u>	<u>CTD</u>	<u>.</u>	<u>48° 45. 90</u>	<u>123° 20. 60</u>	<u>65</u>		<u>-</u>	<u>-</u>	<u>MB</u>	☐ ☒	
			<u>13:37</u>	<u>BO</u>			<u>48° 45. 91</u>	<u>123° 20. 61</u>		<u>55</u>	<u>-</u>			☐ ☐	
			<u>13:38</u>	<u>EN</u>			<u>48° 45. 92</u>	<u>123° 20. 62</u>			<u>-</u>			☐ ☐	
<u>184</u>	<u>GI-01</u>	<u>1</u>	<u>13:39</u>	<u>BE</u>	<u>NET</u>	<u>.</u>	<u>48° 45. 93</u>	<u>123° 20. 63</u>	<u>65</u>		<u>-</u>	<u>-</u>	<u>MB</u>	☐ ☐	
			<u>13:41</u>	<u>BO</u>			<u>48° 45. 94</u>	<u>123° 20. 65</u>		<u>55</u>	<u>-</u>			☐ ☐	
			<u>13:42</u>	<u>EN</u>			<u>48° 45. 95</u>	<u>123° 20. 65</u>			<u>-</u>			☐ ☐	
<u>185</u>	<u>SC-04</u>	<u>1</u>	<u>14:17</u>	<u>BE</u>	<u>CTD</u>		<u>48° 43. 55</u>	<u>123° 25. 08</u>	<u>90</u>		<u>-</u>		<u>MB</u>	☐ ☒	
			<u>14:19</u>	<u>BO</u>			<u>48° 43. 55</u>	<u>123° 25. 08</u>		<u>80</u>	<u>-</u>			☐ ☐	
			<u>14:21</u>	<u>EN</u>			<u>48° 43. 56</u>	<u>123° 25. 10</u>			<u>-</u>			☐ ☐	
<u>186</u>	<u>SC-04</u>	<u>1</u>	<u>14:23</u>	<u>BE</u>	<u>BOT</u>		<u>48° 43. 58</u>	<u>123° 25. 13</u>	<u>90</u>	<u>5</u>	<u>67-68</u>		<u>MB</u>	☐ ☐	<u>5m-67 2x chl + bone</u> <u>0m-68-2x chl + Ph1 bone</u>
<u>187</u>	<u>SC-04</u>	<u>1</u>	<u>14:26</u>	<u>BE</u>	<u>NET</u>		<u>48° 43. 59</u>	<u>123° 25. 16</u>	<u>90</u>		<u>-</u>		<u>MB</u>	☐ ☐	
			<u>14:29</u>	<u>BO</u>			<u>48° 43. 61</u>	<u>123° 25. 19</u>		<u>80</u>	<u>-</u>			☐ ☐	
			<u>14:30</u>	<u>EN</u>			<u>48° 43. 61</u>	<u>123° 25. 20</u>			<u>-</u>			☐ ☐	
<u>188</u>	<u>CBC-2</u>	<u>1</u>	<u>15:29</u>	<u>BE</u>	<u>CTD</u>		<u>48° 44. 18</u>	<u>123° 34. 39</u>	<u>65</u>		<u>-</u>	<u>-</u>	<u>MB</u>	☐ ☒	
			<u>15:30</u>	<u>BO</u>			<u>48° 44. 18</u>	<u>123° 34. 37</u>		<u>55</u>	<u>-</u>			☐ ☐	
			<u>15:31</u>	<u>EN</u>			<u>48° 44. 18</u>	<u>123° 34. 38</u>			<u>-</u>			☐ ☐	
<u>189</u>	<u>CBC2</u>	<u>1</u>	<u>15:32</u>	<u>BE</u>	<u>NET</u>		<u>48° 44. 19</u>	<u>123° 34. 36</u>	<u>65</u>		<u>-</u>	<u>-</u>	<u>MB</u>	☐ ☐	
			<u>15:34</u>	<u>BO</u>			<u>48° 44. 19</u>	<u>123° 34. 35</u>		<u>55</u>	<u>-</u>			☐ ☐	
			<u>15:35</u>	<u>EN</u>			<u>48° 44. 19</u>	<u>123° 34. 35</u>			<u>-</u>			☐ ☐	

Event Type:

BOT = Bottle cast (no CTD)
 CTD = Standalone CTD
 ROS = CTD in Rosette
 SET = Fish Set

LOOP = Sea Water Loop

MOR = Mooring
 NET = Plankton Net Haul
 DRF = Drifter
 _____ = _____

Bottle Firing Method:

US = Up / Stop (default)
 UN = Up / No stop
 DN = Down / No stop

Notes: _____

Time Code:

BE = Beginning Time of Cast
 BO = Bottom Time of Cast
 EN = End Time of Cast

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time
 MR = Messenger Release Time
 RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 14 February 2013