

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2009-69

DATE:

From: Nov 29

to: DEC 8

VESSEL:

PRINCETON

PROJECT(S):

LARVAL SEA LICE SURVEY

BROUGHTON ARCHIPELAGO

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

WaterProperties.ca

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month		Nov / DEC		Year			2009			Ship			PRINCETON			Cruise ID			2009-69			Page		1		of		4																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
30	CLIO	1230	BE	CTD		1	50-36-244	126-21-669	386'	80'																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					</

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

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 to be cleaned before each cast, do not use Ammonia products

Notes:
SCOTT 1-250-974-7177

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 2 of 9

Month <u>Dec</u>			Year <u>2009</u>			Ship <u>PRINCETON</u>			Cruise ID <u>2009-69</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							
DEC 01	GILFORD IS.	1105	EN	NET			50-43-528	126-13-272	258'						
"	"	1110		CTD?			50-43-508	126-13-261	268'						
"	off PUMISH	1130	BE	NET		14	50-43-560	126-13-225	121'						DSMO
"	"	1150	EN	"			50-43-279	126-14-026	339'						
"	"	1155	BE	CTD		15	50-43-255	126-14-064	332'						
"	HUMPHREY RK	1215	BE	CTD		16	50-42-001	126-14-756	112'						9 PENS
"	"	1220	BE	NET		17	50-41-959	126-14-800	189'						
"	"	1240	EN	NET			50-41-446	126-15-699	68'						
"	VISCOUNT	1315	BE	CTD		18	50-41-139	126-13-772	425'						
"	"	1325	BE	NET		19	50-40-911	126-13-697	94'						
"	"	1345	EN	NET			50-41-480	126-13-616	191'						
"	BORMELY	1545	BE	NET		20	50-50-759	126-18-857	219'						7 PENS
"	"	1605	EN	NET			50-50-806	126-19-941	372'						
"	"	1610	BE	CTD		21	50-50-803	126-20-043	381'						
"	SALMON RESEARCH	1800	BE	LT TRAP3		22	50-44.744	126-29.949	9'	05'					13.45 VOLT
DEC 2	"	0745	EN	"		"	"	"	"	"					11.47 VOLT
"	WICKLOW	0940	BE	NET		23	50-47-086	126-41-301	112'						
"	"	10:00	EN	"			50-46-918	126-42-072	203'						10 PEN + 2 EMPTY
"	"	1005	BE	CTD		24	50-46-914	126-42-120	179'						MAGE FISH

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 to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 3 of 9

Month <u>Dec</u>			Year <u>2009</u>				Ship <u>PRINCETON</u>				Cruise ID <u>2009-69</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							
<u>DEC 02</u>	<u>DOBBS BAY</u>	<u>1055</u>	<u>BE</u>	<u>NET</u>		<u>25</u>	<u>50-46-168</u>	<u>126-48-192</u>	<u>143'</u>						
"	"	<u>1115</u>	<u>EN</u>	"			<u>50-46-778</u>	<u>126-48-812</u>	<u>179'</u>						
"	"	<u>1120</u>	<u>BE</u>	<u>CTD</u>		<u>26</u>	<u>50-46-698</u>	<u>126-48-920</u>	<u>173'</u>						
<u>16</u>	<u>COLKATRICE BAY</u>	<u>1145</u>	<u>BE</u>	"		<u>27</u>	<u>50-47-243</u>	<u>126-51-028</u>	<u>121'</u>						
<u>17</u>	"	<u>1150</u>	<u>BE</u>	<u>NET</u>		<u>28</u>	<u>50-47-283</u>	<u>126-51-050</u>	<u>142'</u>						
"	"	<u>1210</u>	<u>EN</u>	"			<u>50-47-690</u>	<u>126-51-438</u>	<u>183'</u>						
"	<u>AMEE BAY</u>	<u>1240</u>	<u>BE</u>	"		<u>29</u>	<u>50-48-946</u>	<u>126-54-161</u>	<u>108'</u>						
"	"	<u>1300</u>	<u>EN</u>	"			<u>50-49-131</u>	<u>126-55-218</u>	<u>115'</u>						
"	"	<u>1305</u>	<u>BE</u>	<u>CTD</u>		<u>30</u>	<u>50-49-117</u>	<u>126-55-307</u>	<u>163'</u>						
"	<u>POLKINGHORNE IS.</u>	<u>1340</u>	<u>BE</u>	<u>CTD</u>		<u>31</u>	<u>50-47-960</u>	<u>126-55-106</u>	<u>102'</u>						
"	"	<u>1350</u>	<u>BE</u>	<u>NET</u>		<u>32</u>	<u>50-47-975</u>	<u>126-55-094</u>	<u>106'</u>						
"	"	<u>1410</u>	<u>EN</u>	"			<u>50-47-120</u>	<u>126-54-248</u>	<u>57'</u>						
"	" <u>(W)</u>	<u>1425</u>	<u>BE</u>	"		<u>33</u>	<u>50-47-551</u>	<u>126-56-004</u>	<u>186'</u>						
"	"	<u>1445</u>	<u>EN</u>	"			<u>50-48-196</u>	<u>126-56-831</u>	<u>108'</u>						
"	"	<u>1450</u>	<u>BE</u>	<u>CTD</u>		<u>34</u>	<u>50-48-217</u>	<u>126-56-786</u>	<u>149'</u>						
"	<u>WEAHS BAY</u>	<u>1555</u>	<u>BE</u>	<u>NET</u>		<u>35</u>	<u>50-51-644</u>	<u>126-55-586</u>	<u>111'</u>						<u>6 PENS EMPTY</u>
"	"	<u>1615</u>	<u>EN</u>	"			<u>50-51-963</u>	<u>126-55-038</u>	<u>461'</u>						<u>FARM MOVED NE</u>
"	"	<u>1620</u>	<u>BE</u>	<u>CTD</u>		<u>36</u>	<u>50-51-929</u>	<u>126-55-022</u>	<u>414'</u>						
"	<u>SULLIVAN</u>	<u>1740</u>	<u>BE</u>	<u>LY TRAFI</u>		<u>37</u>	<u>50-53-107</u>	<u>126-49-618</u>							

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 to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 4 of 9

Month <u>DECEMBER</u>				Year <u>2009</u>			Ship <u>PRINCETON</u>				Cruise ID <u>2009-69</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							
03	SULLIVAN		EN	LT TRAP		37	50 53.107	126 49.618	99'						
DEC 03	KINNAIRD IS.	1323	BE	NET		38	50-53-999	126-52-755	85'						
"	"	1343	EN	"			50 54 042	126-51-859	145'						
"	"	1345	BE	CTD		39	50-53-998	126-51-762	156'						
"	WATKINS COAST PT.	1405	BE	NET		40	50 52-874	126-53-910	198'						
"	"	1425	EN	"			50-52-066	126-54-950	139'						
"	"	1430	BE	CTD		41	50-51-996	126-55-032	150'						
"	POPPLE PT. WELL	1450	BE	CTD		42	50 50-814	126-57-079	378'						
"	"	1457	BE	NET		43	50 50-701	126-57-331	124'						
"	"	1517	EN	NET			50 50-981	126-56-605	372'						
"	BARONET PT.	1540	BE	"		44	50-51-570	126-53-236	153'						
"	"	1600	EN	"			50-51-752	126-54-126	134'						
"	"	1605	BE	CTD		45	50 51-732	126 54-242	128'						
04	JAMES PT.	1025	BE	NET		46	50-50-291	126-58-542	379'						
"	"	1045	EN	"			50-49-855	126-59-781	77'						
"	"	1050	BE	CTD		47	50-49-832	126-59-839	70'						
"	BOYLES PT.	1120	BE	NET		48	50-48-870	127-01-250	74'						
"	LEWIS COVE	1140	EN	"			50 49-116	127-02-354	89'						
"	"	1145	BE	CTD		49	50 49-116	127-02-453	74'						

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 to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month DECEMBER				Year 2009			Ship PRINCETON I				Cruise ID 2009-69				
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							
DEC 04	TAYLOR PT.	1245	BE	CTD		50	50-51-211	127-07-661	212'						
"	"	1247	BE	NET		51	50-51-239	127-07-647	123'						
"	"	1307	EN	NET			50-50-959	127-06-496	294'						
"	AUXILIARY PT.	1320	BE	NET		52	50-50-593	127-05-503	117'						
"	"	1340	EN	"			50-49-349	127-04-490	90'						
"	"	1345	BE	CTD		53	50-49-908	127-04-387	66'						
"	N. OF LEWIS C.	1350	BE	NET		54	50-49-492	127-04-160	128'						
"	"	1410	EN	"			50-49-069	127-03-214	75'						
"	"	1415	BE	CTD		55	50-49-101	127-03-138	47'						
"	MORRIS IS.	1555	BE	NET		56	50-53-196	126-53-634	143'						
"	STUART CHANNEL	1615	EN	"			50-53-803	126-53-530	127'						
"	"	1620	BE	CTD		57	50-53-798	126-53-461	240'						
DEC 05	KENNETH BAY	0948	BE	NET		58	50-49-697	127-00-030	77'						
"	"	1008	EN	NET			50-48-870	127-00-882	42'						
"	"	1010	BE	CTD		59	50-48-783	127-00-985	86'						
"	LEWIS RKS	1025	BE	NET		60	50-48-885	127-02-071	228'						
"	"	1045	EN	NET			50-49-104	127-03-078	60'						
"	"	1050	BE	CTD		61	50-49-084	127-03-099	61'						
"	NUMAS IS.	1130	BE	NET		62	50-46-187	127-04-684	211'						

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month		Year		Ship		Cruise ID									
DEC		2009		PRINCETON		2009-69									
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							
DEC 05	NUMAS IS. (S)	1150	EN	NET			50-45-759	127-04-455	176'						
"	"	1155	BE	CTD		63	50-45-720	127-04-526	185'						
"	STAPLES IT.	1228	BE	NET		64	50-45-933	127-06-376	143'						
"	NUMAS N IS	1248	EN	"			50-46-447	127-07-228	206'						
"	"	1250	BE	CTD		65	50-46-465	127-07-282	178'						
"	TAYLOR PT.	1345	BE	CTD		66	50-51-308	127-08-189	155'						
"	"	1346	BE	NET		67	50-51-330	127-08-156	115'						
"	"	1406	EN	NET			50-51-038	127-06-007	182'						
"	HOWCRAFT PT	1417	BE	"		68	50-50-591	127-05-540	129'						
"	"	1437	EN	"			50-49-905	127-04-512	84'						
"	"	1445	BE	CTD		69	50-49-908	127-04-505	92'						
"	"	1450	BE	NET		70	50-49-573	126-04-261	132'						
"	LEWIS POINT	1510	EN	"			50-49-050	127-03-253	74'						
"	"	1513	BE	CTD		71	50-49-029	127-03-221	123'						
DEC 06	GREEN WAY	0950	BE	NET		72	50-51-305	126-42-891	191'						6 PENS EMPTY
"	"	1010	EN	NET			50-51-267	126-42-899	214'						
"	"	1015	BE	CTD		73	50-51-311	126-42-926	218'						
"	CYPRESS	1045	BE	NET		74	50-50-472	126-39-577	247'						3 PENS LG FISH
"	"	1105	EN	"			50-50-369	126-39-726	113'						11 EMPTY PENS

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 7 of 9

Month		Year		Ship		Cruise ID									
DECEMBER		2009		PRINCETON		2009-69									
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							
DEC 06	GR CYPRESS	1110	BE	CTD		75	50-50-399	126-39-663	137'						
"	SIR EDMUND	1150	BE	Net		76	50-50-047	126-35-493	173'						
"	"	1210	EN	"			50-50-010	126-35-347	81'						8 PENS HARVESTING
"	"	1215	BE	CTD		77	50-50-005	126-35-272	103'						2 EMPTY NO NETS
"	SIMOOM	1245	BE	NET		78	50-49-712	126-30-532	272						
"	"	1305	EN	"			50-50-095	126-29-678	150'						2 FARMS 1 FALLOW 14 PENS
"	"	1310	BE	CTD		99	50-50-061	126-29-651	286'						1 NURSERY 8 PENS BABIES
"	POLLARD PT.	1340	BE	NET		80	50-49-708	126-30-723	127'						
"	SIMOOM WALL	1340	EN	"			50-49-785	126-32-205	187'						
"	"	1345	BE	CTD		81	50-49-825	126-32-280	221'						
"	BURD WOOD	1410	BE	NET		82	50-48-093	126-29-977	181'						
"	"	1430	EN	NET			50-47-448	126-29-751	267'						14 PENS MED FISH
"	"	1435	BE	CTD		83	50-47-384	126-29-844	186'						PORPOISES
"	NEXLESS IS	1500	BE	NET		84	50-46-805	126-32-346	282'						
"	PEREST' PEN	1520	EN	NET			50-46-971	126-33-849	218'						
"	"	1525	BE	CTD		85	50-46-980	126-33-493	278'						
DEC 07	MARS IS.	1148	BE	NET		86	50-43-250	126-38-844	111'						
"	SPILLERS	1208	EN	NET			50-43-022	126-40-139	161'						
"	"	1210	BE	CTD		87	50-42-972	126-40-179	93'						

Cast Type:

BOT = Bottle cast, no CTD

USW = Sea Water Loop

MOP = Mooring

Bottle Firing Method:

Time Code:

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 to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
 Version: 06 March 2008

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Month				Year		Ship		Cruise ID							
DECEMBER				2009		PRINCETON		2009-69							
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							
DEC 07	BETTY COVE	1215	BE	NET		88	50-42-66S	126-39-004	64'						FALLOW 8 PENS NO NETS
"	BONWICK	1235	EN	NET			50-42-946	126-39-173	227'						
"	"	1240	BE	CTD		89	50-42-977	126-39-125	230'						
"	HIGH IS.	1327	BE	NET		90	50-40-712	126-41-207	76'						
"	"	1347	EN	NET			50-41-176	126-40-373	109'						
"	"	1350	BE	CTD		91	50-41-149	126-40-316	107'						
"	MID-SUMMER	1422	BE	CTD		92	50-39-668	126-39-964	122'						10 PENS MED FISH
"	"	1425	BE	NET			50-39-662	126-39-982	113						
"	"	1445	EN	NET		93	50-39-620	126-40-029	186'						
"	FRESH WATER BAY	1715	BE	LT TRAP 1		94	50-36-079	126-42-160	54'	3'					STARBOARD 13:30
"	SE SWANSON IS	1725	BE	LT TRAP 3		95	"	"	"	"					PORT 13:32
08	"	0830	EN	LT TRAP 1			"	"	"	"					11:46
"	"	0845	EN	LT TRAP 3			"	"	"	"					11:50
"	SWANSON	0935	BE	NET		96	50-37-456	126-42-506	121'						12 PENS MED-2 LG FISH
"	"	0955	EN	NET			50-37-054	126-41-880	103'						
"	"	1000	BE	CTD		97	50-37-068	126-41-858	98'						
"	WEDGE IS.	1017	BE	NET		98	50-38-035	126-43-347	170'						
"	"	1037	EN	NET			50-38-536	126-42-444	205'						
"	"	1040	BE	CTD		99	50-38-608	126-42-448	168						

DAILY SCIENCE LOG

Ocean Sciences Division, Institute of Ocean Sciences

Page 9 of 9[illegible]

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

Transmissometer to be cleaned before each cast, do not use Ammonia products

Produced by the Water Properties Group, IOS

WaterProperties.ca
Version: 06 March 2008