

DAILY SCIENCE LOG BOOK

MISSION
NUMBER

2016-03

DATE:

From: 14 March 2016 to: 20 March 2016 (log 1)

VESSEL:

WE Ricker

PROJECT(S):

Strait of Georgia Zooplankton

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

WaterProperties.ca

DAILY SCIENCE LOG

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Month March				Year 2016			Ship WE Ricker			Cruise ID 2016-03					
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							
15	GEO1	02:44	BE	ROS	US	1	49 15.03	123 44.940	404		1-4	4	KY/CS	✓	SAL @ 388m chlarnuts
		02:54	BO				49 15.022	123 44.876		398					
		03:06	EN				15 01L	44789							
15	GEO1	03:54	BO	NET		2	49 14.97	123 44.83	404	394			KY/CS		
15	40		BE	ROS	-	3	49 8.62	123 36.860	136		-		KY	✓	
		05:24	BO				8.609	123 36.860		137					
		05:26	EN				49 8.608	123 36.870							
15	40	05:	BE	NET	-	4			146				KY		
		05:40	BO				49 8.58	123 36.91		136					
		05:43	EN												
15	39	06:18	BE	ROS	US	5	49 9.748	123 32.980	377		5-7	3	KY	-	chl + nts
		06:28	BO				49 9.754	123 32.941		373					
		06:37	EN				49 9.774	123 32.904							
16	46	03:51	BE	ROS	US	6	48 51.414	123 10.847	173		8-10	3	KY	✓	chl + nts
		03:59	BO				48 51.426	123 10.804		178					
		04:04	EN				48 51.439	123 10.764							

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

Cast Type:

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Night survey of Sog during Sog Acoustic trip. Event #'s here are just ROS, NETS, not sequential with fishing during the day.

ROS = Ricker microsettle system, SBE25. Same set up as previous cruise 2016-02.

NET = pbs bongos + PBS RBR solo D

data acquisition = start logging immediately.

chl-a = 20, 10, 0 m nuts same as chl-a

SAL = B-10 m or else noted. + nut at same bottle as deep SAL

- go to 5m Sog bottom

Events 1-5 - need to correct cruise # in header

15 Mar 2016 - start of ROS was timing 2 min once in water, going down 10m + back during

16 Mar 2016 + on - 2 min soak at surface only
4 or 90 sec, see notes

Bottom depth = depth from sounder. Should add 5m for trans. boom offset.

MPS events logged in PBS system (GFBio?) so event #'s not sequential. For database entry, will add "100" to MPS event #'s

→ problem with winch @ 39 m 03:50. fixed quickly + kept going

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							Latitude	Longitude							
16	46	04:11	BE	NET		7			171				KY		
		04:21	BO				48 51.43	123 10.69		161					
16	45	05:02	BE	ROS		8	48 54.822	123 7.538	122		—		KY	✓	→
		05:08	BO				48 54 814	123 7.553		119					
		05:10	EN				48 54.814	123 7.564							
16	44	05:52	BE	ROS		9	48 57.037	123 5.876	133		—		KY	x	→
		05:57	BO				48 57.028	123 5.894		128					
		06:00	EN				48 57.026	123 5.905							
16	43	08:09	BE	ROS		10	49 0.012	123 29.710	212		—		KY	✓	
		08:16	BO				48.59999	123 29.746		205					
		08:20	EN				48 59.974	123 29.728							
16	42	08:47	BE	ROS		11	49 1.786	123 26.294	316				KY	✓	90 sec soak
		08:55	BO				49 1.706	123 26.326		317					
		09:01	EN				49 1.676	123 26.336							

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Station moved slightly E from Chandler position to stay out of shipping lanes

Station moved slightly more inland to avoid tanker traffic

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							Latitude	Longitude							
16	41	09:27	BE	ROS	US	12	49 3.328	123 22.325	240		11-14	4	KY	✓	90 sec soak
		—	BO							242					SAL @ 237m
		09:43	EN				49 3.340	123 22.454							
	41	09:59	BO	NET		13	49 3.29	123 22.72	243	233			KY		
16	38	11:28	BE	ROS	—	14	49 11.909	123 26.425	298		—		KY	✓	
		11:37	BO				49 11.860	123 26.434		294					
		11:42	EN				49 11.821	123 26.446							
16	38	11:50	BE	NET		15			302				KY		
		11:57	BO				49 11.65	123 26.48		292					
		12:04	EN												
															← MPS during day
17	26	03:02	BE	ROS	—	16	49 14.288	123 50.837	245		—		KY	✓	2 min soak @
		03:09	BO				49 14.267	123 50.818		237					surface
		03:14	EN				49 14.281	123 50.812							→
17	27	03:56	BE	ROS	—	17	49 19.050	123 48.112	349				KY	✓	90 sec soak
		04:04	BO				49 19.013	123 48.120		350					strong upper layer
		04:10	EN				49 18.984	123 48.122							(0-19m)

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Chelsea did MPS (called MPS 1), logging in GFBio event log as #10

Upcast SALINITY looks very spiky

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							Latitude	Longitude							
17	28	04:58	BE	ROS	US	18	49 24.067	123 45.272	134		15-17	3	KY	✓	90 sec soak
		05:03	BO				49 24.062	123 45.290		130					
		05:09	EN				49 24.053	123 45.314							
17	28	05:23	BE	NET		19							KY		lost winch counter so re-bid cast
		05:28	BO				49 24.03	123 45.46	134						
		05:35	EN							124					
17	CPF1	07:08	BE	ROS	US	20	49 21.992	124 5.058	244		18-20	3	KY	✓	2 min soak
		07:16	BO				49 21.995	124 5.146		240					
		07:24	EN				958	227							
17	CPF1	07:28	BE	NET		21			254						
		07:43	BO				49 22.01	124 5.50		244			KY		
17	24	08:53	BE	ROS	US	22	49 30.343	124 5.972	429		21-24	4	KY	✓	2 min soak SAL @ 418m
		09:05	BO				49 30.298	124 6.082		422					
		09:17	EN				49 30.266	124 6.191							
		09:24	BE	NET		23			390				KY		
		09:36	BO				49 30.16	124 6.50		380					
		09:44	EN												

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							Latitude	Longitude							
17	25	10:14	BE	ROS	—	24	49 27.714	124 7.900	282		—		KY	✓	90 sec soak
		10:22	BO				49 27.677	124 8.016		252					shallowed quickly
		10:27	EN				49 27.646	124 8.012							during cast
17	2	10:51	BE	ROS		25	49 24.163	124 9.274	274		—		KY	✓	90 sec soak
		10:58	BO				49 24.128	124 9.318		275					
		11:03	EN				49 24.152	124 9.384							
17	1	11:35	BE	ROS	—	26	49 20.315	124 12.070	252		—		KY	✓	90 sec soak
		11:42	BO				49 20.266	124 11.956		245					
		11:47	EN				49 20.249	124 11.951							
															← Chelsea MPS2
18	3	03:56	BE	ROS	—	27	49 26.554	124 20.255	322		—		KY	✓	2 min soak
		04:04	BO				49 26.569	124 20.317		320					
		04:09	EN				49 26.585	124 20.365							
18	4	04:34	BE	ROS	—	28	49 24.476	124 21.928	343				KY	✓	90 sec soak
		04:43	BO				49 24.430	124 21.864		341					
		04:48	EN				49 24.396	124 21.827							

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Month March

Year 2016

Ship WE Ricker

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							Latitude	Longitude							
18	CPF2	05:41	BE	ROS	US	29	49 28.016	124 29.960	324		25-28	4	KY	X	2min soak
		05:50	BO				49 28.025	124 29.976		320					3hr @ 300m
		05:59	EN				49 28.042	124 30.022							
		06:06	BE	NET		30			323				KY		
		06:18	BO				49 28.10	124 30.15		313					
		06:29													
18	BS-11	07:45	BE	ROS	—	31	49 29.010	124 45 985	58		—		KY	✓	2min soak
		07:50	BO				49 29.026	124 45.964		55					
		07:51	EN				49 29.032	124 45.955							
		07:58	BE	NET		32			57				KY		
		08:00	BO				49 29.07	124 46.01		47					
		08:01	EN												
18	6	09:42	BE	ROS	—	33	49 31.391	124 28.357	188				KY	✓	→
		09:49	BO				49 31.409	124 28.312		188					2min soak
		09:54	EN				49 31.409	124 28.304							

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This page is for any notes or observations

station moved NW out of cable area

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							Latitude	Longitude							
18	7	10:26	BE	ROS	—	34	49 34.502	124 24.460	345				KY	✓	
		10:36	BO				49 34.513	124 24.444		346					
		10:42	EN				49 34.549	124 24.403							
19	11	02:59	BE	ROS	US	35	49 42.317	124 43.097	292		29-32	4	KY	✓	3 1/2 min soak →
		03:09	BO				49 42.282	124 43.134		292					SAL @ 270m
		03:18	EN				49 42.238	124 43.208							
		03:25	BE	NET		36			292				KY		
		03:37	BO				49 42.17	124 43.31		282					
		03:43	EN												
19	14	05:36	BE	ROS	—	37	49 53.038	124 59.545	312				KY	✓	2 min soak
		05:45	BO				49 53.062	124 59.587		309					
		05:50	EN				49 53.074	124 59.608							
	14	05:57	BE	NET		38			312				KY		
		06:09	BO				49 53.12	124 59.64		302					
		06:15	EN												

fishing during 18 Mar daytime - ^{1st} young hake ^{mixed w som pollock} @ depth, herring at surface.

farther N ^{2nd} - older hake @ depth
by stn 8-9

→ delayed start to fix frozen tablet on winch

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							Latitude	Longitude							
19	12	08:00	BE	ROS	-	39	49 43.621	124 40.804	350		-		KY	✓	2 min soak
		08:10	BO				49 43.631	124 40.762		350					
		08:16	EN				49 43.636	124 40.740							
19	10	08:55	BE	ROS	-	40	49 40.684	124 47.266	92		-		KY	✓	2 min soak
		09:00	BO				49 40.663	124 47.323		87					
		09:02	EN				49 40.660	124 47.323							
19	9	09:55	BE	ROS	-	41	49 35.514	124 38.297	165		-		KY	✓	2 min soak
		10:01	BO				49 35.508	124 38.178		165					
		10:04	EN				49 35.504	124 38.147							
19	8	10:44	BE	ROS	US	42	49 39.331	124 32.992	334		33	1	KY	✓	strong/high flow, took surf. sample
		10:54	BO				49 39.370	124 33.013		335					chla, nut, phyto
		11:00	EN				49 39.398	124 33.050							← MPS 3
20	13	02:48	BE	ROS	-	43	49 55.289	124 55.232	230		-		KY	✓	2 min soak
		02:55	BO				49 55.282	124 55.194		227					
		02:59	EN				49 55.280	124 55.168							

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forgot to inform eng. dept, ship may have been pumping out (shouldn't affect sampling tho. High fluor in upper 10m, not just surface).

Chelsea did horizontal MPS around 10am

Fishing = mostly lake

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							Latitude	Longitude							
20	15	03:42	BE	ROS	—	44	49 51.598	125 1.614	125		—				
		03:47	BO				49 51.582	125 1.612		120			KY	✓	2 min soak
		03:49	EN				49 51.576	125 1.613							
20	20	06:04	BE	ROS	—	45	49 47.158	124 32.269	312		—				
		06:13	BO				49 47.136	124 32.195		309			KY	✓	2 min soak
		06:18	EN				49 47.125	124 32.148							
20	22	07:48	BE	ROS	US	46	49 40.214	124 16.358	351		34-37	4	KY	✓	2 min soak
		07:57	BO				49 40.222	124 16.433		347					
		08:07	EN				49 40.234	124 16.474							
20	22	08:13	BE	NET		47									
		08:24	BO				49 40.34	124 16.53	354				KY		
		08:35	EN							374					
— THE END —															

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