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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 1

Project(s): Laperouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + 7 **hrs = UTC (please record local time for samples)**

Date: 25 May 16	Station: JF2		Time: 16:13	**LOCAL**	
Net Event # 3	CTD # 2				
Latitude: 48 deg 18 58 min.dec N	Longitude: 124 deg 3.97 min.dec W				
Wire out: 180	Wire angle: 35		Bottom Depth: 190		
Net Type: BVNH	Tow Type:				
Flow start	Flow end		Flow = frozen		
25005	26972		Non-flow = pickled		

Notes:

Date: 26 May 16	Station: E1		Time: 00:50	**LOCAL**	
Net Event # 11	CTD # 10				
Latitude: 48 deg 31.63 min.dec N	Longitude: 125 deg 3.83 min.dec W				
Wire out: 108	Wire angle: 40		Bottom Depth: 118		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
26975	28560		Non-flow = pickled		

Notes: lots crab megalops Uvic picked 30 copes from frozen

Date: 26 May 2016	Station: C1		Time: 03:34	**LOCAL**	
Net Event # 15	CTD # 14				
Latitude: 48 deg 28 93 min.dec N	Longitude: 125 deg 15 26 min.dec W				
Wire out: 144	Wire angle: 35		Bottom Depth: 154		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
28562	30181		Non-flow = pickled		

Notes:

Date: 26 May 2016	Station: C2		Time: 04 42	**LOCAL**	
Net Event # 17	CTD # 16				
Latitude: 48 deg 20 04 min.dec N	Longitude: 125 deg 9 16 min.dec W				
Wire out: 152	Wire angle: 45		Bottom Depth: 162		
Net Type: B	Tow Type: VNH				
Flow start 30202	Flow end 33120		Flow = frozen		
			Non-flow = pickled		

Notes: high wire angle thru out, towed at surface on recovery

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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 2

Project(s): La Perouse **Contact:** Marc

TSK Serial #: 4888 **RBR serial #:**

Time offset = + 7 **hrs = UTC** (please record local time for samples)

Date: 26MAY2016	Station: C3		Time: 0620	**LOCAL**	
Net Event # 19	CTD # 18				
Latitude: 48 deg	23 57 N min.dec	Longitude: 125 deg	20 59 W min.dec		
Wire out: 113	Wire angle: 123 25		Bottom Depth: 123		
Net Type: B	Tow Type: VNH				
Flow start 33150	Flow end 34679		Flow = frozen		
			Non-flow = pickled		

Notes:

Date: 26MAY16	Station: LB07		Time: 0738	**LOCAL**	
Net Event # 21	CTD # 20				
Latitude: 48 deg	28 67 N min.dec	Longitude: 125 deg	22 15 W min.dec		
Wire out: 146	Wire angle: 10		Bottom Depth: 156		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
34680	36106		Non-flow = pickled		

Notes:

Date: 26 May 2016	Station: B8		Time: 0912	**LOCAL**	
Net Event # 23	CTD # 22				
Latitude: 48 deg	34 63 N min.dec	Longitude: 125 deg	29 97 W min.dec		
Wire out: 101	Wire angle: 30		Bottom Depth: 111		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
36108	37277		Non-flow = pickled		

Notes:
Eulachon

Date: 26 May 2016	Station: B7		Time: 1017	**LOCAL**	
Net Event # 25	CTD # 24				
Latitude: 48 deg	32 08 N min.dec	Longitude: 125 deg	35 30 W min.dec		
Wire out: 68	Wire angle: 45		Bottom Depth: 79		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
37100	38350		Non-flow = pickled		

Notes: full doliolids 2x 500ml frozen in 3 bags

from RBR: bad downcast

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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 3

Project(s): Laperouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + 7 **hrs = UTC (please record local time for samples)**

Date: 26 May 2016	Station: LB08		Time: 1155		**LOCAL**
Net Event # 27	CTD # 26				
Latitude: 48 25.15 N (deg / min.dec)		Longitude: 125 28.48 W (deg / min.dec)			
Wire out: 125	Wire angle: 25		Bottom Depth: 134		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
38344	39492		Non-flow = pickled		

Notes: TIME ESTIMATED FROM CTD LAT/LONG

Date: 26 May 2016	Station: LB11		Time: 1647		**LOCAL**
Net Event # 31	CTD # 30				
Latitude: 48 15.16 N (deg / min.dec)		Longitude: 125 47.81 W (deg / min.dec)			
Wire out: 200	Wire angle: 0		Bottom Depth: 208		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
39492	41485		Non-flow = pickled		

Notes: SALPS + COROLLA

Date: 27 MAY 16	Station: LB16		Time: ~~1217~~ 0017		**LOCAL**
Net Event # 36	CTD # 38				
Latitude: 48 00.48 N (deg / min.dec)		Longitude: 126 16.94 W (deg / min.dec)			
Wire out: 250	Wire angle: 10		Bottom Depth: 1811		
Net Type: BONGO	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
41486	43350		Non-flow = pickled		

Notes: Doliolids + corolla

Date: 27 MAY 16	Station: LB16		Time: 0106		**LOCAL**
Net Event # 37	CTD # 38				
Latitude: 48 00.55 N (deg / min.dec)		Longitude: 126 16.90 W (deg / min.dec)			
Wire out: 1200	Wire angle: 0		Bottom Depth: 1810		
Net Type: BONGO	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
43350	52556		Non-flow = pickled		

Notes: Tactostoma macropus in sample (~15 cm?)
+ another fish transferred from frozen → pickled.

Doliolids + corolla

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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 4

Project(s): Laperouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + **hrs = UTC (please record local time for samples)**

Date: 27 May 2016	Station: LC12/A4		Time: 0736		**LOCAL**
Net Event # 40	CTD # 39				
Latitude: 48 deg	14.98 min.dec	N	Longitude: 126 deg	39.98 min.dec	W
Wire out: 250	Wire angle: 0		Bottom Depth: 2540		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
52557	54520		Non-flow = pickled		

Notes: doliolids + corolla

Date: 27 May 2016	Station: LC12/A4		Time: 0821		**LOCAL**
Net Event # 41	CTD # 39				
Latitude: 48 deg	15.03 min.dec	N	Longitude: 126 deg	39.97 min.dec	W
Wire out: 1200	Wire angle: 10		Bottom Depth: 2540		
Net Type: Bongo	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
54520	62919		Non-flow = pickled		

Notes: 4 fish in green side, preserved separately = Bathylagus milleri

Date: 27 May 16	Station: LC11		Time: 1214		**LOCAL**
Net Event # 44	CTD # 43				
Latitude: 48 deg	18.91 min.dec	N	Longitude: 126 deg	26.62 min.dec	W
Wire out: 70	Wire angle: 45		Bottom Depth: 1432		
Net Type: Bongo	Tow Type: Oblique		VNH		
Flow start	Flow end		Flow = frozen		
62920	65240		Non-flow = pickled		

Notes: Oblique targeting 30m layer on acoustics
HETEROPODS - CARINARIA / COROLLA

Date: 27 05 16	Station: LC09		Time: 1532		**LOCAL**
Net Event # 47	CTD # 46				
Latitude: 48° 25.97' deg	min.dec	N	Longitude: 126° 13.50' deg	min.dec	W
Wire out: 250	Wire angle: 5°		Bottom Depth: 597		
Net Type: Bongo	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
65240	67423		Non-flow = pickled		

Notes:

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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 5

Project(s): Laperouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + **hrs = UTC (please record local time for samples)**

Date: 27-05-2016	Station: A2		Time: 1700 **LOCAL**		
Net Event # 48	CTD # 49		0000 UTC		
Latitude: 48 deg	22.73 min.dec	N	Longitude: 126 deg	03.75 min.dec	W
Wire out: 250	Wire angle: 13		Bottom Depth: 350		
Net Type: BONGO	Tow Type: VNH				
Flow start 67423	Flow end 69220		Flow = frozen		
			Non-flow = pickled		

Notes:

Date: 27 05 16	Station: A 1		Time: 1739 **LOCAL**		
Net Event # 51	CTD # 52		0239 UTC		
Latitude: 48 deg	29.40 min.dec	N	Longitude: 126 deg	07.23 min.dec	W
Wire out: 195	Wire angle: 5		Bottom Depth: 201		
Net Type: BONGO	Tow Type: VNH				
Flow start 69220	Flow end 70823		Flow = frozen		
			Non-flow = pickled		

Notes:

LC061

Date: 27-05-16	Station: B6		Time: 2202 **LOCAL**		
Net Event # 54	CTD # 55		0502 UTC		
Latitude: 48 deg	36.44 min.dec	N	Longitude: 125 deg	53.97 min.dec	W
Wire out: 85	Wire angle: 10		Bottom Depth: 91		
Net Type: BONGO	Tow Type: VNH				
Flow start 70823	Flow end 71175		Flow = frozen		
			Non-flow = pickled		

Notes:

Date: 27 MAI 2016	Station: B5		Time: 2314 **LOCAL**		
Net Event # 56	CTD # 57		0614 UTC		
Latitude: 48 deg	39.90 min.dec	N	Longitude: 125 deg	47.41 min.dec	W
Wire out: 58	Wire angle: 0		Bottom Depth: 63		
Net Type: BONGO	Tow Type: VNH				
Flow start 71175	Flow end 71574		Flow = frozen		
			Non-flow = pickled		

Notes:

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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 6

Project(s): Laperouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + **hrs = UTC (please record local time for samples)**

Date: 28 May 2016	Station: LD02		Time: 04:36	**LOCAL**	
Net Event # 62	CTD # 63				
Latitude: 48 deg	58.40 min.dec	N	Longitude: 125 deg	47.04 min.dec	W
Wire out: 34	Wire angle: 0		Bottom Depth: 44		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
71574	71791		Non-flow = pickled		

Notes: phyto - 500ml jar + Eutin

Date: 28 May 2016	Station: LD04		Time: 06:17	**LOCAL**	
Net Event # 65	CTD # 64				
Latitude: 48 deg	53.24 min.dec	N	Longitude: 125 deg	57.33 min.dec	W
Wire out: 55	Wire angle: 10		Bottom Depth: 65		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
71791	72180		Non-flow = pickled		

Notes: doliolids

Date: 28.05.16	Station: LG09		Time: 1913	**LOCAL**	
Net Event # 70	CTD # 69				
Latitude: 48 deg	51.16 min.dec	N	Longitude: 127 deg	19.31 min.dec	W
Wire out: 250	Wire angle: 5		Bottom Depth: 2049		
Net Type: Bongo	Tow Type: VNH				
Flow start 72180	Flow end 74120		Flow = frozen		
			Non-flow = pickled		

Notes:

Date: 28.05.16	Station: LG07		Time: 2228	**LOCAL**	
Net Event # 72	CTD # 73		0528 UTC		
Latitude: 48 deg	59.38 min.dec	N	Longitude: 127 deg	07.20 min.dec	W
Wire out: 250	Wire angle: 0		Bottom Depth: 1753		
Net Type: Bongo	Tow Type: VNH				
Flow start 74120	Flow end 75980		Flow = frozen		
			Non-flow = pickled		

Notes: RELEASE 1 LIPID
1 WESTINOM RINGERS

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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 7

Project(s): Laperouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + 7 **hrs = UTC (please record local time for samples)**

Date: 29 May 2016	Station: LG04		Time: 03 17	**LOCAL**	
Net Event # 76	CTD # 77				
Latitude: 49 11 30 N		Longitude: 126 49 36 W			
deg	min.dec		deg	min.dec	
Wire out: 135	Wire angle: 5		Bottom Depth: 145		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
75980	72030		Non-flow = pickled		

Notes: fish jumping @ stern; fishing boats around (Herring?)

Date: 29 May 2016	Station: LG02		Time: 05 25	**LOCAL**	
Net Event # 79	CTD # 80				
Latitude: 49 18 69 N		Longitude: 126 38 08 W			
deg	min.dec		deg	min.dec	
Wire out: 90	Wire angle: 0		Bottom Depth: 100		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
77035	79720		Non-flow = pickled		

Notes: full doliolids. 3 500 mL jars, 4 bags

Date: 29-05-16	Station: LBP2		Time: 1533	**LOCAL**	
Net Event # 85	CTD # 84		2233	UTC	
Latitude: 50 04 06 N		Longitude: 127 54 21 W			
deg	min.dec		deg	min.dec	
Wire out: 85	Wire angle: 40		Bottom Depth: 88		
Net Type: Bongo	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
77721	78192		Non-flow = pickled		

Notes:

Date: 29-5-16	Station: LBP3		Time: 1623	**LOCAL**	
Net Event # 87	CTD # 86				
Latitude: 50 03.16 N		Longitude: 127 55.29 W			
deg	min.dec		deg	min.dec	
Wire out: 163	Wire angle: 5		Bottom Depth: 167		
Net Type: Bongo	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
78192	79340		Non-flow = pickled		

Notes:

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Plankton Net Tow Log Sheet

Cruise #: 2016-47 **Vessel:** TULLY **Page:** 8

Project(s): LA PEROUSE **Contact:** MOIRA

TSK Serial #: 4888 **RBR serial #:**

Time offset = + 7 **hrs = UTC (please record local time for samples)**

Date: 29.05.16	Station: LBP5		Time: 1917	**LOCAL**	
Net Event # 90	CTD # 89				
Latitude: 49 deg	59.99 min.dec	N	Longitude: 127 deg	59.97 min.dec	W
Wire out: 250	Wire angle: 5		Bottom Depth: 1267		
Net Type: BONGO	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
79340	891110		Non-flow = pickled		

Notes:

Date: 29.05.16	Station: LBP7		Time: 2316	**LOCAL**	
Net Event # 93	CTD # 92				
Latitude: 49 deg	52.47 min.dec	N	Longitude: 128 deg	11.27 min.dec	W
Wire out: 250	Wire angle: 5		Bottom Depth: 2135		
Net Type: BONGO	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
891110	892870		Non-flow = pickled		

Notes: removed 2 - AEG -- 53 from pickled

Date: 30 May 2016	Station: LBP8		Time: 0136	**LOCAL**	
Net Event # 95	CTD # 94				
Latitude: 49 deg	48 64 min.dec	N	Longitude: 128 deg	17 03 min.dec	W
Wire out: 250	Wire angle: 5		Bottom Depth: 2064		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
82869	84435		Non-flow = pickled		

Notes:
Velella at surface

Date: 30 May 16	Station: LBP8		Time: 0225	**LOCAL**	
Net Event # 96	CTD # 94				
Latitude: 49 deg	48 60 min.dec	N	Longitude: 128 deg	16 88 min.dec	W
Wire out: 1200	Wire angle: 0		Bottom Depth: 2064		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
84435	91820		Non-flow = pickled		

Notes: transferred large shrimp, Cyclothone microdon, 2 deepwater jellies from frozen to pickled. Fish + shrimp in separate jars. lots large jellies in water (fried egg? or sea nettle?), salp chains

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Plankton Net Tow Log Sheet

Cruise #: 1647. **Vessel:** Tully **Page:** 9

Project(s): Laperouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + 7 **hrs = UTC (please record local time for samples)**

Date: 30 May 2016	Station: CPE2		Time: 0933	**LOCAL**	
Net Event # 98	CTD # 97				
Latitude: 50 deg 43 03 min.dec N	Longitude: 128 deg 39 81 min.dec W				
Wire out: 114	Wire angle: 0		Bottom Depth: 124		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
91820	92550		Non-flow = pickled		

Notes:

Date: 30 05 16	Station: LQ03		Time: 1403	**LOCAL**	
Net Event # 101	CTD # 100		2103 UTC		
Latitude: 50 deg 39.70 min.dec N	Longitude: 129 deg 01 99 min.dec W				
Wire out: 250	Wire angle: 0		Bottom Depth: 1250		
Net Type: BONGO	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
92550	94045		Non-flow = pickled		

Notes: VELELLA ON SURFACE

Date: 30 MAI 2016	Station: J122		Time: 1630	**LOCAL**	
Net Event # 103	CTD # 102		9 2330 UTC		
Latitude: 50 deg 39.81 min.dec N	Longitude: 129 deg 17 38 min.dec W				
Wire out: 250	Wire angle: 5		Bottom Depth: 1394		
Net Type: BONGO	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
94045	95675		Non-flow = pickled		

Notes: VELELLA ON SURFACE

Date: 31 MAI 16	Station: C500		Time: 00:20	**LOCAL**	
Net Event # 106	CTD # 105				
Latitude: 50 deg 27.68 min.dec N	Longitude: 129 deg 55.07 min.dec W				
Wire out: 250	Wire angle: 0		Bottom Depth: 2167		
Net Type: BONGO	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
95675	97226		Non-flow = pickled		

Notes: Doliolids. Tomopterans full of doliolids w/ guts

removed 1 AEQ 53 from pickled

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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 10

Project(s): Laperouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + 7 **hrs = UTC** (please record local time for samples)

Date: 31 May 2016	Station: CS01		Time: 0309		**LOCAL**
Net Event # 108	CTD # 107				
Latitude: 50 deg	34 95 min.dec	N	Longitude: 129 deg	41 60 min.dec	W
Wire out: 250	Wire angle: 10		Bottom Depth: 2095		
Net Type: B	Tow Type: VNH				
Flow start	Flow end 8		Flow = frozen		
97226	98908		Non-flow = pickled		

Notes: doliolids labels have wrong flow end, should be 98908
furseal.

Date: 31 May 2016	Station: CS02		Time: 0440		**LOCAL**
Net Event # 109	CTD # 110				
Latitude: 50 deg	41 32 min.dec	N	Longitude: 129 deg	27 91 min.dec	W
Wire out: 250	Wire angle: 0		Bottom Depth: 1893		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
98908	100365		Non-flow = pickled		

Notes: some Euphausiids, jellies (mioce?)
+ another Dragonfish in pickled side

Date: 31 May 2016	Station: CS03		Time: 0737		**LOCAL**
Net Event # 112	CTD # 111				
Latitude: 50 deg	45 64 min.dec	N	Longitude: 129 deg	19 80 min.dec	W
Wire out: 220	Wire angle: 20		Bottom Depth: 230		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
365	1789		Non-flow = pickled		

Notes: Humpbacks in area
1 AEQ removed from preserved, 1 MIOCES from frozen

Date: 31 May 2016	Station: CS04		Time: 0843		**LOCAL**
Net Event # 114	CTD # 113				
Latitude: 50 deg	49 23 min.dec	N	Longitude: 129 deg	12 96 min.dec	W
Wire out: 90	Wire angle: 10		Bottom Depth: 96		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
01791	02480		Non-flow = pickled		

Notes: Jelly soup
8 MIOCES3 removed pickled
1 AEQ S3 removed frozen

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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 11

Project(s): Laperouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + 7 **hrs = UTC** (please record local time for samples)

Date: 2016 May 31	Station: NEWODAS		Time: 1649	**LOCAL**	
Net Event # 117	CTD # 116				
Latitude: 50° 56.37 N		Longitude: 129° 58.82 W			
deg min.dec		deg min.dec			
Wire out: 250	Wire angle:		Bottom Depth: 2097		
Net Type: B	Tow Type: VNH				
Flow start 2510	Flow end 5034		Flow = frozen		
			Non-flow = pickled		

Notes: VELELLA ON SURFACE

Date: 31·05·16	Station: CS3B		Time: 2003	**LOCAL**	
Net Event # 120	CTD # 119		0303	UTC	
Latitude: 50° 59.96 N		Longitude: 129° 27.06 W			
deg min.dec		deg min.dec			
Wire out: 215	Wire angle: 12		Bottom Depth: 221		
Net Type: Bongo	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
5059	7112		Non-flow = pickled		

Notes:

Date: 31·05·16	Station: CS05		Time: 2250	**LOCAL**	
Net Event # 122	CTD # 121		0550		
Latitude: 50° 55.94 N		Longitude: 128° 59.80 W			
deg min.dec		deg min.dec			
Wire out: 60	Wire angle: 15		Bottom Depth: 65		
Net Type: Bongo	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
7112	7657		Non-flow = pickled		

Notes:

Date: 1 June 2016	Station: CS1B		Time: 0247	**LOCAL**	
Net Event # 124	CTD # 123				
Latitude: 50 52 99 N		Longitude: 128 39 97 W			
deg min.dec		deg min.dec			
Wire out: 64	Wire angle: 5		Bottom Depth: 72		
Net Type: B	Tow Type: VNH				
Flow start 07661	Flow end 08141		Flow = frozen		
			Non-flow = pickled		

Notes:

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Plankton Net Tow Log Sheet

Cruise #: 2016-47 **Vessel:** Tully **Page:** 12

Project(s): La Perouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + **hrs = UTC (please record local time for samples)**

Date: 1 Jun 2016	Station: CS06	Time: 02:08	LOCAL
Net Event # 125	CTD # 126		
Latitude: 50 59.98 N (deg / min.dec)		Longitude: 128 51.76 W (deg / min.dec)	
Wire out: 54	Wire angle: 30	Bottom Depth: 64	
Net Type: Bongo	Tow Type: VNH		
Flow start 08413	Flow end 09053	Flow = frozen	
		Non-flow = pickled	

Notes: rem 1 AEQ --53 from both sides

Date: 1 June 2016	Station: CS07	Time: 03:37	LOCAL
Net Event # 128	CTD # 127		
Latitude: 51 4.60 N (deg / min.dec)		Longitude: 128 44.20 W (deg / min.dec)	
Wire out: 53	Wire angle: 10	Bottom Depth: 63	
Net Type: B	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
9053	9939	Non-flow = pickled	

Notes: high wire angle at start of cast (~ 30-40°)

Date: 1 June 2016	Station: CS08	Time: 04:57	LOCAL
Net Event # 130	CTD # 129		
Latitude: 51 8.74 N (deg / min.dec)		Longitude: 128 36.50 W (deg / min.dec)	
Wire out: 132	Wire angle: 5	Bottom Depth: 142	
Net Type: B	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
9946	11298	Non-flow = pickled	

Notes: 2 Frozen bags

Date: 1 June 16	Station: CS09	Time: 0627	LOCAL
Net Event # 132	CTD # 131		
Latitude: 51 12.42 N (deg / min.dec)		Longitude: 128 27.65 W (deg / min.dec)	
Wire out: 182	Wire angle: ~~15~~	Bottom Depth: 193	
Net Type: B	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
11296	12950	Non-flow = pickled	

Notes:
- Picked 10 Mitrocoma from pickled side
- Picked 6 Mitrocoma + 1 Aqueroea(?) from ~~PFE~~ biomass side. J.D.

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Plankton Net Tow Log Sheet

Cruise #: 2016-47 / 1 JUN 2016 **Vessel:** TULLY **Page:** 13

Project(s): La Perouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + **hrs = UTC (please record local time for samples)**

Date: 1 JUN 2016	Station: CS10		Time: 07:37	**LOCAL**
Net Event # 134	CTD # 133			
Latitude: 51 deg	16.49 min.dec	N	Longitude: 128 deg	19.78 min.dec	W
Wire out: 67	Wire angle: 0		Bottom Depth: 77	
Net Type: Bongo	Tow Type: VNH			
Flow start 12950	Flow end 13523		Flow = frozen	
			Non-flow = pickled	

Notes:

Date: 01-06-16	Station: S500		Time: 1904	**LOCAL**
Net Event # 138	CTD # 137			
Latitude: 51° 00.08 deg	min.dec	N	Longitude: 130°52.02 deg	min.dec	W
Wire out: 250	Wire angle: 8		Bottom Depth: 2626	
Net Type: Bongo	Tow Type: VNH			
Flow start 13523	Flow end 15506		Flow = frozen	
			Non-flow = pickled	

Notes: Neocalanus

Date: 01-06-16	Station: S500		Time: 1920	**LOCAL**
Net Event # 139	CTD # 137			
Latitude: 51° 00.68 deg	min.dec	N	Longitude: 130° 05.01 deg	min.dec	W
Wire out: 1200	Wire angle: 0		Bottom Depth: 2626	
Net Type: Bongo	Tow Type: VNH			
Flow start 15506	Flow end 25011		Flow = frozen	
			Non-flow = pickled	

Notes:

Date: 2-06-2016	Station: SS1		Time: 0021	**LOCAL**
Net Event # 143	CTD # 142			
Latitude: 51 deg	11 98 min.dec	N	Longitude: 129 deg	59 96 min.dec	W
Wire out: 250	Wire angle: 20		Bottom Depth: 490	
Net Type: B	Tow Type: VNH			
Flow start	Flow end		Flow = frozen	
24984	26654		Non-flow = pickled	

Notes: Corolla + Neocalanus crist + plum.
Salps in frozen side only (was a chain), transferred a couple to pickled side

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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 14
Project(s): Laperouse **Contact:** Moira
TSK Serial #: 4888 **RBR serial #:**
Time offset = + 7 **hrs = UTC (please record local time for samples)**

Date: 2 June 2016	Station: SS2	Time: 02:21	**LOCAL**
Net Event # 145	CTD # 144		
Latitude: 51 12.94 N (deg / min.dec)		Longitude: 129 42.90 W (deg / min.dec)	
Wire out: 250	Wire angle: 10	Bottom Depth: ~~582~~ 566	
Net Type: B	Tow Type: VNH		
Flow start 26653	Flow end 28567	Flow = frozen	
		Non-flow = pickled	

Notes: Sm. larval fish w/ stripes/spot pattern transferred frozen → pickled
really long larval fish pickled in scint vial, from frozen side.

Date: 2 JUN 2016	Station: SS3	Time: 0429	**LOCAL**
Net Event # 147	CTD # 146		
Latitude: 51 15 06 N (deg / min.dec)		Longitude: 129 21 28 W (deg / min.dec)	
Wire out: 250	Wire angle: 40	Bottom Depth: 289	
Net Type: ~~Bongo~~	Tow Type: VNH		
Flow start 21111	Flow end 23186	Flow = frozen	
		Non-flow = pickled	

Notes:

Date: 02-06-2016	Station: SS4	Time: 0731	**LOCAL**
Net Event # 149	CTD # 148		
Latitude: 51° 21.07' N (deg / min.dec)		Longitude: 128° 59.92' W (deg / min.dec)	
Wire out: 228	Wire angle: 5°	Bottom Depth: 238	
Net Type: Bongo	Tow Type: VNH		
Flow start 23191	Flow end 25945	Flow = frozen	
		Non-flow = pickled	

Notes: 2 aeq picked out

Date: 2-6-2016	Station: SS05	Time: 0914	**LOCAL**
Net Event # 152	CTD # 151		
Latitude: 51 28 03 N (deg / min.dec)		Longitude: 128 30 05 W (deg / min.dec)	
Wire out: 189	Wire angle: 10	Bottom Depth: 200	
Net Type: Bongo	Tow Type: VNH		
Flow start 24991	Flow end 26890	Flow = frozen	
		Non-flow = pickled	

Notes:

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Plankton Net Tow Log Sheet

Cruise #: 1647 **Vessel:** Tully **Page:** 15

Project(s): Laperouse **Contact:** Moira

TSK Serial #: 4888 **RBR serial #:**

Time offset = + **hrs = UTC (please record local time for samples)**

Date: 2 JUN 2016	Station: QCS-1	Time: 11:35	**LOCAL**
Net Event # 155	CTD # 154		
Latitude: 51° 42.35' N (deg / min.dec)		Longitude: 128° 14.32' W (deg / min.dec)	
Wire out: 128	Wire angle: 15°	Bottom Depth: 140	
Net Type: BONGO	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
26891	28562	Non-flow = pickled	

Notes:

Date: 02 06 16	Station: SSG	Time: 1500	**LOCAL**
Net Event # 157	CTD # 156		
Latitude: 51.19.98 N (deg / min.dec)		Longitude: 128.00.04 W (deg / min.dec)	
Wire out: 172	Wire angle:	Bottom Depth: 177	
Net Type: BONGO	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
28655	29910	Non-flow = pickled	

Notes:

Date: 2016 JUN 2	Station: 557	Time: 1638	**LOCAL**
Net Event # 159	CTD # 158		
Latitude: 51 24.80 N (deg / min.dec)		Longitude: 127° 47.69 W (deg / min.dec)	
Wire out: 115	Wire angle: 0	Bottom Depth: 120	
Net Type: BONGO	Tow Type: VNH		
Flow start 29910	Flow end 30691	Flow = frozen	
		Non-flow = pickled	

Notes:

Date: 02.06.16	Station: UBC7	Time: 1743	**LOCAL**
Net Event # 161	CTD # 160	0043	UTC
Latitude: 51 30.07 N (deg / min.dec)		Longitude: 127 49.09 W (deg / min.dec)	
Wire out: 153	Wire angle: 0	Bottom Depth: 158	
Net Type: BONGO	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
29930691	31577	Non-flow = pickled	

Notes:

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Plankton Net Tow Log Sheet

Cruise #: 2016-47 **Vessel:** TULLY **Page:** 16

Project(s): RIVERS/LAP **Contact:**

TSK Serial #: 4888 **RBR serial #:**

Time offset = + 7 **hrs = UTC** (please record local time for samples)

Date: 02 06 16	Station: Ri 1	Time: 0715	LOCAL
Net Event # 163	CTD # 162		
Latitude: 51 deg 26.49 min.dec N		Longitude: 127 deg 38.45 min.dec W	
Wire out: 298	Wire angle: 0	Bottom Depth: 303	
Net Type: BONGO	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
31578	33355	Non-flow = pickled	

Notes:

Date: 02.06.16	Station: Ri 2	Time: 2030	LOCAL
Net Event # 165	CTD # 164	0330	UTC
Latitude: 51 deg 31.22 min.dec N		Longitude: 127 deg 33.70 min.dec W	
Wire out: 325	Wire angle: 0	Bottom Depth: 330	
Net Type: BONGO	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
33355	35236	Non-flow = pickled	

Notes:

Date: 02.06.16	Station: Ri 3	Time: 2142	LOCAL
Net Event # 167	CTD # 166	0442	UTC
Latitude: 51 deg 35.79 min.dec N		Longitude: 127 deg 32.08 min.dec W	
Wire out: 325	Wire angle: 0	Bottom Depth: 325	
Net Type: BONGO	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
35236	37185	Non-flow = pickled	

Notes:

Date: 02 06 19	Station: Ri 4	Time: 2235	LOCAL
Net Event # 168	CTD # 169	0535	UTC
Latitude: 51 deg 38.90 min.dec N		Longitude: 127 deg 26.58 min.dec W	
Wire out: 295	Wire angle: 5	Bottom Depth: 296	
Net Type: BONGO	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
37185	39948	Non-flow = pickled	

Notes:

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Plankton Net Tow Log Sheet

Cruise #: 2016-47 **Vessel:** TULY **Page:** 17

Project(s): LC Phase **Contact:** Mora

TSK Serial #: 4888 **RBR serial #:**

Time offset = + 7 **hrs = UTC (please record local time for samples)**

Date: 3 June 2016	Station: CPE1		Time: 0351		**LOCAL**
Net Event # 172	CTD # 171		1051		UTC
Latitude: 51 deg	00.18 min.dec	N	Longitude: 127 deg	50.18 min.dec	W
Wire out: 132	Wire angle: 0		Bottom Depth: 142		
Net Type: B	Tow Type: VNH				
Flow start	Flow end		Flow = frozen		
38969	40090		Non-flow = pickled		

Notes: high wire angle at start

Date: 03·06'16	Station: 14		Time: 1935		**LOCAL**
Net Event # 177	CTD # 176		0235		
Latitude: 49 deg	53.13 min.dec	N	Longitude: 124 deg	59.71 min.dec	W
Wire out: 309	Wire angle: 5		Bottom Depth: 314		
Net Type: Bongo	Tow Type: VNH				
Flow start 40091	Flow end 42170		Flow = frozen		
			Non-flow = pickled		

Notes:

Date: 03·06'16	Station: 11		Time: 2134		**LOCAL**
Net Event # 179	CTD # 178		0434		
Latitude: 49° 42.67 deg min.dec		N	Longitude: 124° 43.71 deg min.dec		W
Wire out: 296	Wire angle: 0		Bottom Depth: 301		
Net Type: Bongo	Tow Type: VNH				
Flow start 42170	Flow end 43948		Flow = frozen		
			Non-flow = pickled		

Notes:

Date: 03·06'16	Station: CPF2		Time: 0000		**LOCAL**
Net Event # 181	CTD # 180		0700		
Latitude: 49° deg	28.04 min.dec	N	Longitude: 124° deg	29.95 min.dec	W
Wire out: 314	Wire angle: 0		Bottom Depth: 324		
Net Type: Bongo	Tow Type: VNH				
Flow start	Flow end 45779		Flow = frozen		
43948			Non-flow = pickled		

Notes: Cyanea + Aeq in water

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Plankton Net Tow Log Sheet

Cruise #: 2016-47 **Vessel:** Tully **Page:** 18
Project(s): La Perouse-SoG **Contact:** Moira B
TSK Serial #: 4888 **RBR serial #:**
Time offset = + 7 **hrs = UTC (please record local time for samples)**

Date: 4JUN2016	Station: CPF1		Time: 0215	**LOCAL**	
Net Event # 183	CTD # 182				
Latitude: 49 deg	21 99 N min.dec	Longitude: 124 deg	5 16 W min.dec		
Wire out: 239	Wire angle: 0		Bottom Depth: 244		
Net Type: Bongo	Tow Type: VNH				
Flow start 45778	Flow end 47237		Flow = frozen		
			Non-flow = pickled		

Notes:

Date: 4 June 16	Station: 22		Time: 0454	**LOCAL**	
Net Event # 185	CTD # 184		124 16 60		
Latitude: 49 deg	40 51 N min.dec	Longitude: deg	W min.dec		
Wire out: 354	Wire angle: 0		Bottom Depth: 360		
Net Type: B	Tow Type: VNH				
Flow start 47236	Flow end 49418		Flow = frozen		
			Non-flow = pickled		

Notes:

Date: 4JUN2016	Station: 24		Time: 0637	**LOCAL**	
Net Event # 187	CTD # 186				
Latitude: 49° deg	30.26 N min.dec	Longitude: 124° deg	06.94 W min.dec		
Wire out: 418	Wire angle: 0		Bottom Depth: 423		
Net Type: Bongo	Tow Type: VNH				
Flow start 49118	Flow end 51930		Flow = frozen		
			Non-flow = pickled		

Notes:

Date: 4JUN2016	Station: 28		Time: [redacted] 0850	**LOCAL**	
Net Event # 189	CTD # 188		1550		
Latitude: 49 deg	24 08 N min.dec	Longitude: 123 deg	45 13W min.dec		
Wire out: 129	Wire angle: 0		Bottom Depth: 134		
Net Type: Bongo	Tow Type: VNH				
Flow start 51930	Flow end 52755		Flow = frozen		
			Non-flow = pickled		

Notes:

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Plankton Net Tow Log Sheet

Cruise #: 2016-47 **Vessel:** TULLY **Page:** 19

Project(s): La Perouse · LG **Contact:** Moira G

TSK Serial #: 4888 **RBR serial #:** -

Time offset = + **hrs = UTC (please record local time for samples)**

Date: 4 JUN 2016	Station: GEO1		Time: 1028	**LOCAL**
Net Event # 191	CTD # 190			
Latitude: 49° 14.92 N (deg / min.dec)		Longitude: 123° 45.02 W (deg / min.dec)		
Wire out: 393	Wire angle: 0		Bottom Depth: 398	
Net Type: BONGO	Tow Type: VNH			
Flow start 55755	Flow end 55151		Flow = frozen	
			Non-flow = pickled	

Notes:

Date: 4 JUN 2016	Station: GEO1		Time: 1058	**LOCAL**
Net Event # 192	CTD # 190			
Latitude: 49° 14.91 N (deg / min.dec)		Longitude: 123° 45.01 W (deg / min.dec)		
Wire out: 100	Wire angle:		Bottom Depth: 398	
Net Type: BONGO	Tow Type: VNH			
Flow start 55151	Flow end 55782		Flow = frozen	
			Non-flow = pickled	

Notes:

Date: 4 JUN 2016	Station: 38		Time: 1252	**LOCAL**
Net Event # 194	CTD # 193			
Latitude: 49° 11.89 N (deg / min.dec)		Longitude: 123° 26.42 W (deg / min.dec)		
Wire out: 295	Wire angle: 0		Bottom Depth: 300	
Net Type: BONGO	Tow Type: VNH			
Flow start 55782	Flow end 57609		Flow = frozen	
			Non-flow = pickled	

Notes:

Date: 4 JUN 2016	Station: 41		Time: 1435	**LOCAL**
Net Event # 196	CTD # 195			
Latitude: 49° 03.28 N (deg / min.dec)		Longitude: 123° 22.24 W (deg / min.dec)		
Wire out: 230	Wire angle: 0		Bottom Depth: 236	
Net Type: BONGO	Tow Type: VNH			
Flow start 57640	Flow end 59192		Flow = frozen	
			Non-flow = pickled	

Notes:

Laperouse May 2016 47

Stn	STN 2	Tow depth	f.start	f.end	∠
JF2	190	180	25005	26972	35
E1	00:50	108	26975	28560	40
C1	03:36	144	28562	30181	35
C2	04:42	152	30202	33120	40
C3	06:20	113	33150	34679	25
LB07	07:37	146	34680	36106	10
B8	09:12	101	36108	37277	30
B7	10:17	68	37100	38350	45
LBØ8	134	125	38344	39492	25
LB11	208	200	39492	41485	0
LB16	1802 :07	250	41486	43350	10
LB16	:06	1200	43350	52556	0
LC12	2540 :55	250	52557	54520	0
LC12	2540	1200	54520	62919	10
LC09	597	250	65240	67423	5
A2	365	250	67423	69220	13
A1	200	195	69220	70823	5
B6	92	85	70823	71175	10
B5	63	58	71175	71574	0
LDØ2	49	34	71574	71791	0
LDØ4	65	55	71791	72180	10
LG09	2049	250	72180	74120	5
LG07	1770	250	74120	75980	0
LGØ4	145	135	75980	77030	5
LGØ2	100	90	77035	77120	0

STN	STN Z	TOW Z	START	END	LO
LBP2	91	85	77721	78192	14
LBP3	168	163	78192	79340	5
LBP5	1267	250	79340	91110	5
LBP7	2135	250	91110	92810	5
LBP8	2064	250	82869	84435	5
LBP8	2064	1200		91820	0
CPE2	124	114	91820	92550	0
LQ03	1250	1250	92250	94045	0
J122		250	94045	95675	5
CSØØ	2167	250	95675	97226	0
CSØ1	2094	250	97226	98908	10
CSØ2	1893	250	98908	100365	0
CSØ3	230	220	365	01789	20
CSØ4	100	90	1791	02480	10
ODAS	2099	250	2510	5034	15
CS39	221	215	5059	7112	12
CSØ5	65	60	7112	7657	15
CSØ1B	74	64	07601	8141	5
CS06	64	54	08413	09053	30
CS07	63	53	09053	09939	10
CS08	142	32	09946	11298	5
CSØ9	192	182	11296	12950	25
CS10	77	67	12950	13523	0
5500	2621	250	13583	15506	8
—		1200	15506	25011	0

STN	STN Z	TOW Z	FLOW START	FLOW END	∠°
SS1	495	250	24984	26654	20
SS2	566	250	26653	28567	10
SS3	289	250	21111	23180	40
SS4	238	228	23191	25945	5
SS5	199	189	24991	26890	10
QCS1	138	128	26891	28562	15
SS6	179	172	28655	29910	0
SS7	120	115	29910	30691	0
UBC7	157	153	30691	31577	0
Ri1	303	298	31578	33355	0
Ri2	330	325	33355	35236	0
Ri3	330	325	35236	37185	0
Ri4	304	295	37185	39948	5
CPE1	142	132	38969	40090	0
14	314	309	40091	42170	5
11	301	296	42170	43948	0
CPF2	324	314	43948	45729	0
CPF1	244	234	45778	47237	0
22	360	354	47236	49418	0
24	423	416	49418	51930	0
28	134	129	51930	52755	0
GEO1	398	395	52755	55151	0
GEO1	398	100	55151	55782	0
38	300	295	55782	57609	0
41	237	232	57640	59192	10