

Not
water
proof
paper



Plankton Net Tow Log Sheet

(2nd leg)

Cruise #: 2019-124 Vessel: NORDIC PEARL Page: 1/9

Project(s): Pelagic Survey Contact: Jasmine

TSK Serial #: 6069 IPES Wietzke.

Date: July 1, 2019	Station: 4451	Time: 17:01	(LOCAL) ← @ bottom
Net Event # 133	CTD # 132	not UTC	
Latitude: 49° 5.672 N	Longitude: 126° 5.065 W		
deg min.dec	deg min.dec		
Wire out: 50m	Wire angle: 0°	Bottom Depth: 60m	
Net Type: Bongo	Tow Type: VNH		
Flow start 63000	Flow end 63328	Flow = frozen = non-flow	
		Non-flow = pickled = flow	

Notes: Calm.

Date: July 1, 2019	Station: 4076	Time: 20:08	(LOCAL) Bottom.
Net Event # 136	CTD # 135	not UTC	
Latitude: 48° 59.862 N	Longitude: 126° 5.948 W		
deg min.dec	deg min.dec		
Wire out: 65m	Wire angle: ~30°	Bottom Depth: 74m	
Net Type: Bongo	Tow Type: VNH		
Flow start 63318	Flow end 63361	Flow = frozen = non-flow	
63328		Non-flow = pickled - flow	

Notes: Flowmeter reading low - most likely due to net being put out too fast; calm conditions & wire angle ~30° (prob. didn't reach target depth.)

Date: July 2, 2019	Station: 7047	Time: 16:53	(LOCAL)
Net Event # 141	CTD # 140	not UTC	
Latitude: 49° 52.944 N	Longitude: 127° 39.327 W		
deg min.dec	deg min.dec		
Wire out: 120m	Wire angle: 30°	Bottom Depth: 128	
Net Type: Bongo	Tow Type: VNH		
Flow start 63361	Flow end 63379	Flow = frozen	
		Non-flow = pickled	

Notes: Calm conditions; deployed net slower this time, hoping the issue w/ the flowmeter was caused by deploying too faster before - but flowmeter

Date: July 2, 2019	Station: 7173	Time: 18:10	(LOCAL)
Net Event # 144	CTD # 143	not UTC	
Latitude: 49° 55.334 N	Longitude: 127° 36.369 W		
deg min.dec	deg min.dec		
Wire out: 60	Wire angle: 30°	Bottom Depth: 70	
Net Type: Bongo	Tow Type: VNH		
Flow start 63380	Flow end 63727	Flow = frozen	
		Non-flow = pickled	

Notes: flowmeter appears to have started working again.



Plankton Net Tow Log Sheet

Cruise #: 2019-124 Vessel: Nordic Pearl Page: 2/9
Project(s): IPES Contact: Jasmine Wietzke
TSK Serial #: 6069

Date: July 2, 2019 Station: 7170 Time: 20:05 (LOCAL)
Net Event # 147 CTD # 146 not UTC
Latitude: 49°55.514 N Longitude: 127°46.543 W
deg min.dec deg min.dec
Wire out: 170 Wire angle: 5° Bottom Depth: 180
Net Type: Bongo Tow Type: VNH
Flow start Flow end Flow = frozen
63728 63780 Non-flow = pickled

Notes: flowmeter seems low again. Most likely broken.

Date: July 3, 2019 Station: 6307 Time: 11:035 (LOCAL)
Net Event # 153 CTD # 152 not UTC
Latitude: 49°40.265 N Longitude: 127°45.43 W
deg min.dec deg min.dec
Wire out: 110 Wire angle: 25° Bottom Depth: 118
Net Type: Bongo Tow Type: VNH
Flow start Flow end Flow = frozen
63780 64356 Non-flow = pickled

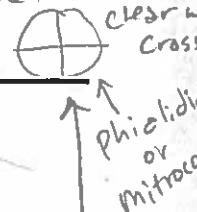
Notes: calm; flowmeter worked.

Date: July 3, 2019 Station: 6928 Time: 18:44 (LOCAL)
Net Event # 156 CTD # 155 not UTC
Latitude: 49°51.074 N Longitude: 127°21.040 W
deg min.dec deg min.dec
Wire out: 70 Wire angle: 0 Bottom Depth: 78
Net Type: Bongo Tow Type: VNH
Flow start Flow end Flow = frozen
64356 64718 Non-flow = pickled

Notes: calm; flowmeter worked. formalin/flowmeter side sample: took out two 3-inch diameter jellies & three 2-inch jellies (unknown species) - split a little of the 0.25mm frozen/non-flow side sample.

Date: July 3, 2019 Station: 6925 Time: 20:26 (LOCAL)
Net Event # 159 CTD # 158 not UTC
Latitude: 49°49.934 N Longitude: 127°29.704 W
deg min.dec deg min.dec
Wire out: 70 Wire angle: 35° Bottom Depth: 78
Net Type: Bongo Tow Type: VNH
Flow start Flow end Flow = frozen
64718 65135 Non-flow = pickled

Notes: calm; flowmeter worked; removed seventeen 1-inch jellies, four 1.5-inch jelly & one 2-inch jelly (all same type)





Plankton Net Tow Log Sheet

Cruise #: 2019-124 Vessel: NORDIC PEARL Page: 3/9

Project(s): IES

Contact: Jasmine Wietzko

TSK Serial #: 6069

Date: July 4, 2019	Station: 4935	Time: 16:37	(LOCAL)
Net Event # 165	CTD # 164		not UTC
Latitude: 49° 16.244 N		Longitude: 126° 58.920 W	
deg	min.dec	deg	min.dec
Wire out: 160	Wire angle: 20	Bottom Depth: 170	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
65135	66080	Non-flow = pickled	
Notes: flowmeter worked; removed 2 inch water jellies (7 of them) Calm.			

Date: July 4, 2019	Station: 5307	Time: 18:19	(LOCAL)
Net Event # 168	CTD # 167		not UTC
Latitude: 49° 22.520 N		Longitude: 127° 7.874 W	
deg	min.dec	deg	min.dec
Wire out: 150	Wire angle: 40	Bottom Depth: 168	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
66080	67083	Non-flow = pickled	
Notes: Calm. - flow worked			

Date: July 4, 2019	Station: 5811	Time: 20:21	(LOCAL)
Net Event # 171	CTD # 170		not UTC
Latitude: 49° 31.134 N		Longitude: 126° 53.940 W	
deg	min.dec	deg	min.dec
Wire out: 90	Wire angle: 5	Bottom Depth: 99	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
67083	67442	Non-flow = pickled	
Notes: Calm. - flow worked			

Date: July 5, 2019	Station: 4442	Time: 16:37	(LOCAL)
Net Event # 177	CTD # 176		not UTC
Latitude: 49° 7.189 N		Longitude: 126° 36.481 W	
deg	min.dec	deg	min.dec
Wire out: 130	Wire angle: 30	Bottom Depth: 138	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
67442	68145	Non-flow = pickled	
Notes: Calm. - flow worked			



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Cruise #: 2019-124 Vessel: Nordic Pearl Page: 4/9
Project(s): IPES Contact: Jasmine Wietzke
TSK Serial #: 6069

Date: July 5, 2019	Station: 4562	Time: 18:42 (LOCAL)
Net Event # 180	CTD # 179	not UTC
Latitude: 49° 9.748 N	Longitude: 126° 51.665 W	
deg min.dec	deg min.dec	
Wire out: 165	Wire angle: 40	Bottom Depth: 175
Net Type: Bongo	Tow Type: VNH	
Flow start	Flow end	Flow = frozen
68145	69249	Non-flow = pickled

Notes: calm. - flow worked. • took a very long time to filter - a LOT of "doh-lee-oh-lids" (doliolids?) - looked like watered down Strawberry Jam: flowmeter side sample: soil ~50-70ml of sample

Date: July 5, 2019	Station: 4937	Time: 20:11 (LOCAL)
Net Event # 182	CTD # 181	not UTC
Latitude: 49° 15.604 N	Longitude: 126° 51.543 W	
deg min.dec	deg min.dec	
Wire out: 140	Wire angle: 20°	Bottom Depth: 149
Net Type: Bongo	Tow Type: VNH	
Flow start	Flow end	Flow = frozen
69249	70185	Non-flow = pickled

Notes: calm. - flow worked.

Date: July 6, 2019	Station: 3829	Time: 16:37 (LOCAL)
Net Event # 187	CTD # 186	not UTC
Latitude: 48° 53.927 N	Longitude: 125° 55.532 W	
deg min.dec	deg min.dec	
Wire out: 60	Wire angle: 25	Bottom Depth: 69
Net Type: Bongo	Tow Type: VNH	
Flow start	Flow end	Flow = frozen
70185	70589	Non-flow = pickled

Notes: calm - flow. worked

Date: July 6, 2019	Station: 3579	Time: 18:15 (LOCAL)
Net Event # 190	CTD # 189	not UTC
Latitude: 48° 49.663 N	Longitude: 125° 56.057 W	
deg min.dec	deg min.dec	
Wire out: 70	Wire angle: 20	Bottom Depth: 78
Net Type: Bongo	Tow Type: VNH	
Flow start	Flow end	Flow = frozen
70591	71008	Non-flow = pickled

Notes: calm - flow. worked.



Plankton Net Tow Log Sheet

Cruise #: 2019-124 Vessel: Nordic Pearl Page: 5/9

Project(s): IPES

Contact: Jasmine Wietzke

TSK Serial #: 6069

Date: July 6, 2019	Station: 3329	Time: 19:50	(LOCAL)
Net Event # 193	CTD # 192		not UTC
Latitude: 48° 46.081 N		Longitude: 125° 59.664 W	
deg	min.dec	deg	min.dec
Wire out: 70	Wire angle: 15	Bottom Depth: 80	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
71008	71518	Non-flow = pickled	

Notes: Calm, light rain; flow worked.

Date: July 7, 2019	Station: 3326	Time: 16:48	(LOCAL)
Net Event # 199	CTD # 198		not UTC
Latitude: 48° 46.993 N		Longitude: 126° 7.479 W	
deg	min.dec	deg	min.dec
Wire out: 110	Wire angle: 20	Bottom Depth: 120	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
71518	72149	Non-flow = pickled	

Notes: Calm; flowmeter worked! * Ran out of circular labels the 90° atop of formaldehyde spiked jar on first leg... actually it just ran out of labels to go inside jars to restock!

Date: July 8, 2019	Station: 3327	Time: 16:37	(LOCAL)
Net Event # 207	CTD # 206		not UTC
Latitude: 48° 44.421 N		Longitude: 125° 48.407 W	
deg	min.dec	deg	min.dec
Wire out: 05	Wire angle: 10	Bottom Depth: 115	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
72149	72168	Non-flow = pickled	

Notes: Flow didn't work; calm cond.

* took out 120 mm diameter water jelly from formaldehyde/flowmeter sample.

Date: July 8, 2019	Station: 3357	Time: 18:10	(LOCAL)
Net Event # 240	CTD # 209		not UTC
Latitude: 48° 48.800 N		Longitude: 125° 46.197 W	
deg	min.dec	deg	min.dec
Wire out: 50	Wire angle: 5°	Bottom Depth: 57	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
72168	72535	Non-flow = pickled	

Notes: Flow worked?
Calm.



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Cruise #: 2019-124 Vessel: Nordic Pearl Page: 6 / 9

Project(s): IPES.

Contact: Jasmine LaRietze

TSK Serial #: 60069

3835

Date: July 8, 2019 Station: ~~3457~~ Time: 20:26 (LOCAL)

Net Event # 213 CTD # 212 not UTC

Latitude: 48° 54.482 N Longitude: 125° 37.465 W
deg min.dec deg min.dec

Wire out: 90 Wire angle: 10 Bottom Depth: 98

Net Type: Bongo Tow Type: VNH

Flow start Flow end Flow = frozen

72539 73075 Non-flow = pickled

Notes: calm cond. ; flowmeter kind of working...

Date: July 9, 2019 Station: 2592 Time: 16:29 (LOCAL)

Net Event # 219 CTD # 218 not UTC

Latitude: 48° 32.276 N Longitude: 125° 17.005 W
deg min.dec deg min.dec

Wire out: 110 Wire angle: 15? Bottom Depth: 170

Net Type: Bongo Tow Type: VNH

Flow start Flow end Flow = frozen

73075 73827 Non-flow = pickled

Notes: calm, rainy.

Date: July 9, 2019 Station: 2843 Time: 17:54 (LOCAL)

Net Event # 222 CTD # 221 not UTC

Latitude: 48° 36.969 N Longitude: 125° 12.094 W
deg min.dec deg min.dec

Wire out: 100 Wire angle: 35 Bottom Depth: 110

Net Type: Bongo Tow Type: VNH

Flow start Flow end Flow = frozen

73827 74453 Non-flow = pickled

Notes: calm, rainy - Flow worked

Date: July 9, 2019 Station: 3094 Time: 19:09 (LOCAL)

Net Event # 225 CTD # 224 not UTC

Latitude: 48° 40.521 N Longitude: 125° 07.297 W
deg min.dec deg min.dec

Wire out: 50 Wire angle: 20 Bottom Depth: 61

Net Type: Bongo Tow Type: VNH

Flow start Flow end Flow = frozen

74453 74621 Non-flow = pickled

Notes: calm, rainy - flow worked...? (not accurate)



Plankton Net Tow Log Sheet

Cruise #: 2019-124 Vessel: Nordic Pearl Page: 7/9

Project(s): IPES

Contact: Jasmine Wietzke

TSK Serial #: 6069

Date: July 10, 2019	Station: 2335	Time: 16:45	(LOCAL)
Net Event # 231	CTD # 230	not UTC	
Latitude: 48° 28.708 N		Longitude: 125° 39.319 W	
deg min.dec		deg min.dec	
Wire out: 910	Wire angle: 15°	Bottom Depth: 100	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
74621	75109	Non-flow = pickled	
Notes: 2 m swell; flowmeter worked.			

Date: July 10, 2019	Station: 2384	Time: 20:26	(LOCAL)
Net Event # 235	CTD # 234	not UTC	
Latitude: 48° 42.279 N		Longitude: 125° 40.358 W	
deg min.dec		deg min.dec	
Wire out: 1160	Wire angle: 45°	Bottom Depth: 173	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
75109	76039	Non-flow = pickled	
Notes: 1.5m swell; flow. worked			

Date: July 11, 2019	Station: 2582	Time: 17:54	(LOCAL)
Net Event # 241	CTD # 240	not UTC	
Latitude: 48° 33.712 N		Longitude: 125° 48.439 W	
deg min.dec		deg min.dec	
Wire out: 70	Wire angle: 20	Bottom Depth: 81	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
76039	76498	Non-flow = pickled	
Notes: Calm (a lot of dogfish in the area); Flow worked			

Date: July 11, 2019	Station: 2703	Time: 19:47	(LOCAL)
Net Event # 244	CTD # 243	not UTC	
Latitude: 48° 34.912 N		Longitude: 126° 02.130 W	
deg min.dec		deg min.dec	
Wire out: 110	Wire angle: 25	Bottom Depth: 120	
Net Type: Bongo	Tow Type: VNH		
Flow start	Flow end	Flow = frozen	
76498	77133	Non-flow = pickled	
Notes: 1m swell; flow seems low.			



Plankton Net Tow Log Sheet

Cruise #: 2019-124 Vessel: Nordic Pearl Page: 8/9

Project(s): IPES

Contact: Jasmine Lietzke

TSK Serial #: 60629

Date: July 12, 2019	Station: 2208	Time: 16:38	(LOCAL)
Net Event # 250	CTD # 249	not UTC	
Latitude: 48° 25.293 N	Longitude: 125° 45.302 W		
deg min.dec	deg min.dec		
Wire out: 130	Wire angle: 5°	Bottom Depth: 137m	
Net Type: Bongo	Tow Type: UNH		
Flow start	Flow end	Flow = frozen	
77133	77787	Non-flow = pickled	

Notes: flow didn't work, Change seems small conditions: <1m swell, Super calm

Date: July 12, 2019	Station: 1708	Time: 19:20	(LOCAL)
Net Event # 254	CTD # 253	not UTC	
Latitude: 48° 16.699 N	Longitude: 125° 45.030 W		
deg min.dec	deg min.dec		
Wire out: 165	Wire angle: 25	Bottom Depth: 174	
Net Type: Bongo	Tow Type: UNH		
Flow start	Flow end	Flow = frozen	
77787	78748	Non-flow = pickled	

Notes: Super duper calm. flow worked. Rubber bumpers coming off of bongo.

Date: July 13, 2019	Station: 2720	Time: 16:33	(LOCAL)
Net Event # 260	CTD # 259	not UTC	
Latitude: 48° 34.069 N	Longitude: 125° 05.011 W		
deg min.dec	deg min.dec		
Wire out: 109	Wire angle: 5°	Bottom Depth: 114	
Net Type: Bongo	Tow Type: UNH		
Flow start	Flow end	Flow = frozen	
78748	79411	Non-flow = pickled	

Notes: calm; flow worked

Date: July 13, 2019	Station: 2848	Time: 18:36	(LOCAL)
Net Event # 263	CTD # 262	not UTC	
Latitude: 48° 35.012 N	Longitude: 124° 57.427 W		
deg min.dec	deg min.dec		
Wire out: 50	Wire angle: 20°	Bottom Depth: 60	
Net Type: Bongo	Tow Type: UNH		
Flow start	Flow end	Flow = frozen	
79411	79727	Non-flow = pickled	

Notes: Calm; flow worked



Plankton Net Tow Log Sheet

Cruise #: 2019-124 Vessel: Nodic Pearl Page: 9/9

Project(s): IPES Contact: Jasmine Lietzke

TSK Serial #: 60609

Date: July 13, 2019	Station: 2850	Time: 20:05 (LOCAL)
Net Event # 266	CTD # 265	not UTC
Latitude: 48° 35.307 N	Longitude: 124° 48.705 W	
deg min.dec	deg min.dec	
Wire out: 50	Wire angle: 25	Bottom Depth: 60
Net Type: Bongo	Tow Type: VNH	
Flow start	Flow end	Flow = frozen
79727	80011	Non-flow = pickled

Notes: calm conditions, flow worked...? Seals in area

Date:	Station:	Time: (LOCAL)
Net Event #	CTD #	not UTC
Latitude:	N Longitude: W	
deg min.dec	deg min.dec	
Wire out:	Wire angle:	Bottom Depth:
Net Type:	Tow Type:	
Flow start	Flow end	Flow = frozen
		Non-flow = pickled

Notes:

Date:	Station:	Time: (LOCAL)
Net Event #	CTD #	not UTC
Latitude:	N Longitude: W	
deg min.dec	deg min.dec	
Wire out:	Wire angle:	Bottom Depth:
Net Type:	Tow Type:	
Flow start	Flow end	Flow = frozen
		Non-flow = pickled

Notes:

Date:	Station:	Time: (LOCAL)
Net Event #	CTD #	not UTC
Latitude:	N Longitude: W	
deg min.dec	deg min.dec	
Wire out:	Wire angle:	Bottom Depth:
Net Type:	Tow Type:	
Flow start	Flow end	Flow = frozen
		Non-flow = pickled

Notes: