

Day
575m

VPR DATA SHEET

Cruise CE-473 Location Test Sta. 1 Cast # #1 #1

Date 8/8/11 Wind Speed 6.2 m/s Direction (drop)

Year/Day 219 Sea State calm, some swell

Local Time 10:48 to 11:52 Start Lat 31.6537 Long -166.9579

GMT Time 14:48 to 15:52 End Lat 39.6498 Long -166.9764

Start Battery 26.4 End Battery 25.0
Magnification 51

Raw 1312814583.dat Processed Directory e:\data\004731\upr1\
Filename

start: 12,500 (2.6m)
end 26,100 (575m)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

surface to 12m, sat ~5 min, then to surface, then to depth

start capture: ~~4400~~ ~~11300~~ ²⁸⁶ ₁₀₁₅ 12,500

bottom 26,100 sat @ ~575

end 57,000 10,000 ~ back to 2m

sat at ~2.5m, 12m,

threshold 0 - 133

skel 41

std 0

lob = 10, minjon = 1

growth = 300

2/30/11 - run w/ start @ Frame 12,500. Was not
ready to descend @ 11,300
skel = 40, same as above.

COMMENTS:

Station # Test Sta. 1

Date	Time	Max Wire Out	Down Speed	Up Speed	Battery V at Start	Battery V at End	Max Depth (from CTD cast)	Harddrive Used	Battery Used	CTD File Name	Bottom Switch and Altimeter work?
8/8/11	10:48	>550	60	30 ⁺ stops	26.4	25.0	575 m	MOC	A	004730001	

sta cast

Observations while processing data:

Start Frame: 4400 End Frame: 26,160

VPR File Name: 131284583.dat, .idx

Depth (m)	Notes
12 m	rad's
	10,000 fram- bubbles ~ 2 m
16.7	SNOW
	redacted at 17594
5001 ab	3.46 mm - 1.25 s VPR, 5.0 mm - 1.46 s

Depth (m)	Notes
	training / build classifier didn't end properly due to use of newer matlab (2009a rather than 2008b)
	2009a is on 'MOC'
	2008b is on 'VPR'
	Moved to 'VPR':
	training accuracy: 0/200 epochs 94.9472
	matlab gave errors after this output 95.2997
	96.0954
	classifier name = oc473 96.7572
	97.0588

DUS h
~500 m?

VPR DATA SHEET

Cruise OC473 Location Test Sta. 2 Cast # 2

Date 10 Aug 2011 Wind Speed 2.5 m/s Direction 305°

Year/Day 2011 22 Sea State calm

Local Time 19:54 to 20:49 Start Lat 36.34585 Long -56.17255

GMT Time 23:54 to 00:49 End Lat 36.346167 Long -56.175700

Start Battery 26.2 End Battery 26

Magnification 51

Raw 1313020225 ^{dat}_{idx}
Filename

Processed Directory c:\data\OC473\vpr2\

frame start. 3650 (28m)
end. 26000 (510m)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth	Frame #	Observation
----- total frames = 50031 -----		
0.6 m	3100	start extraction
511 m	26000	bottom of cast, end extraction
1.5 m	3300	bubble layer
2.5 m	3600	copepods, trichodesmium
12 m	4000	shrimp (maybe)
13 m	4600	jellies, radiolarian (maybe or bacterial colony)
12.6 m	4800	chaetognath
12.5 m	5700	good copepod images
12.5 m	6000	something large, probably gelatinous
13 m	6600	a pteropod perhaps
1 m	~9000	resurface 23000 400 m
77 m	11100	euphausiid
134 m	14800	pause ends (pause began at 12750)
355 m	25700	large, chaetognath
COMMENTS: Also amphipod (134 m), more radiolarians, many copepods		

VPR DATA SHEET

Cruise 06473 Location station 1 Cast # 3

Date 8/12/11 Wind Speed _____ Direction _____

Year/Day 223 Sea State calm

Local Time 1:30 am to 2:42 am Start Lat 35.057467 Long -52.099883

GMT Time 5:30 am to 6:42 am End Lat ^{35.062317}~~35.06217~~ Long 52.101050

Start Battery

End Battery 25.1 V

Magnification 51

Raw 1313126736.dat

Processed Directory

Filename

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth	Frame #
-------	---------

5. 10. 1950

COMMENTS:

VPR DATA SHEET

Day
1000 mCruise OC473 Location Station 1 Cast # 4Date Aug 12 2011 Wind Speed 2.9 m/s Direction 151°Year/Day 223 Sea State calmLocal Time 11:37 to 12:35 Start Lat 35.115700 Long -51.944450GMT Time 14:37 to 15:35 End Lat 35.121900 Long -51.926967Start Battery 26.9 End Battery 25.7Magnification 51Raw 1313159586.idxProcessed Directory C:\data\OC473\vp4

Filename

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

0.8 m 2380 extraction starts

13 m 3270-6000 waiting for CTD to ^{calibrate} ~~warm up~~

1013 m 34400 extraction ends

COMMENTS:

late Day
1000m

VPR DATA SHEET

Cruise 0C473 Location sta. 2 Cast # 5
Date Aug 12, '11 Wind Speed _____ Direction _____
Year/Day 223 Sea State calm
Local Time 16:24 to 17:47 ^(-3 UTC) Start Lat 35.4746 Long -51.99077
GMT Time 19:24 to 20:47 End Lat 35.4650 Long -51.9980
Start Battery 25.7 End Battery 14.7!4 dead* made (15) files
Magnification 51
Raw 1313176932.1CX Processed Directory C:\data\0C473\vp5
Filename _____

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth	Frame #	
		518 m - cope - fuzzyish
^{2m} start	4900	575 - snow/junk
ends at	969 m (31371)	~645 - interesting small rhy
50 m	cope, snow	681 - noise -
~65	Limacina?	713 - lg. cope
80 -	Polych - large	773 - snow/junk
140 -	not much	969 - small copes
199 -	big chaet	[next file starts at 1014 m]
~310 -	small fishy noise?	possible pteropod 1015:
330 -	not much	7019409201 - Limacina
365	small cope	7036311600 - crescentic
474	not much	7044409100 - "
479 -	more little stuff	7050315700 - styl.
		7075668000 - styl.
		7108639200 - fine Limacina
		7145450100 - styl.

7151598760 - styl.
7196980101 - styl. Sec.

COMMENTS: _____

Night
1000m

VPR DATA SHEET

Cruise 00473 Location station 3 Cast # 6

Date 8/12/2011 Wind Speed _____ Direction _____

Year/Day 223 Sea State calm

Local Time 2356 to 0118 Start Lat 35.954900 Long -51.973467

GMT Time 0256 to 0418 End Lat 35.958283 Long -51.956400

Start Battery 27.1 End Battery 26.1
Magnification 51

Raw 1313203996 Processed Directory C:\data\00473\vr6
Filename

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

harddrive got full at 248m on down can't
start 5100 (2-3m)

end 12,087 (248m) possible pteropod rolls

1089495500 - styl?

ROM - open, thick

1892800500 - Lim?

100m - grainy background

~100-150 - styl

165 - show

248 - 1000000000

COMMENTS:

Night
1000m

VPR DATA SHEET

Cruise OC473 Location station 4 Cast # 7

Date 8/13/11 Wind Speed _____ Direction _____

Year/Day 224 Sea State calm

Local Time 0443 to 0604 Start Lat 36.5 Long -51.9995

GMT Time 0743 to 0904 End Lat 36.506167 Long -52.007183

Start Battery 27

End Battery 25.8

Magnification 54

Raw 1313221170
Filename

Processed Directory C:\data\OC473\VPR7

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame # out of focus (20,000)

12m birds possible Plenopax birds

~40 larvae 2835864400 - tiny Limacina?

80 siphon, hydromed 2853106500 - styl.

340 - stomach? small 2870927600 - Lim

480 - pyrosoma-lg 2912221100 - styl

2975091200 - Lim

COMMENTS: _____

Day
1000 m

VPR DATA SHEET

Cruise OC473 Location sta. 5 Cast # 8

Date 8/13/11 Wind Speed _____ Direction _____

Year/Day 224 Sea State calm

Local Time 09:13 to 10:10 Start Lat 36.9975 Long -51.9949

GMT Time 12:13 to 13:10 End Lat 36.9900 Long -51.9801

Start Battery 27.4 End Battery 26.1
Magnification 51

Raw 1313237342.1dv Processed Directory MOC: \data\ OC473\ vpr8
Filename

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

start frame: 7600 (2m)
end frame: 35,800 (2015m)

Depth _____ Frame # _____
small (~1mm) blobs abundant in much of tow

22051 ^{m. ~2400} Limacina? forams, small cores, fecal pellets

2-30 tricho

115130 ^{133, 234} chaetagnath No pteropod rois in downcast

199 huge Trich pol

270 1/4" wings (can. isopods?)

534 salp solitary

300-320 small fish

18504 astreodes?

900 - large (10mm) hydromedusa

pteropod

rol. 4513763700

COMMENTS: _____

VPR DATA SHEET

Night
(200)
to 200m
SP

Cruise 00473 Location sta. 5 Cast # 9
Date 8/14 Wind Speed 20-25 km Direction _____
Year/Day 225 Sea State 3-5'
Local Time 01:35 to ~02:00 Start Lat _____ Long _____
GMT Time 04:35 to ~05:00 End Lat _____ Long _____
Start Battery 28.0 End Battery not checked
Magnification 5x
Raw 13132962416.dat Processed Directory C:\data\00473\vd9
Filename + backup e:

frame
start - 2730 8/00
end downcast - 15,100

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

smallest images = bubbles, snow/fecal, forams, copes
largest images = snow/fecal, i cope bubbles

for fewer rois captured at SP than S1

no pteropod rois

COMMENTS: Test to see if SP would be better to use pteropods

VPR DATA SHEET

Night
to 1000mCruise OC473 Location sta 5 Cast # 10Date 8/14 Wind Speed 20-25 km Direction _____Year/Day 225 Sea State 3-5'Local Time 02:09 to 03:30 Start Lat _____ Long _____GMT Time 05:09 to 06:30 End Lat _____ Long _____Start Battery not checkedEnd Battery 24.7Magnification (51)Raw 1313298407.dat * 2.7GB Processed Directory C:\data\OC473\Vpr10Filename " 302706 (119 MB) + backup 2011A, same path" 935 small
" 087
" 303206, 1313303380.dat (small file)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

start frame: 8900
stop fm (= end down) = 36,100
cast
1013 m

Depth	Frame #	snow/fecal?	small (copes) scatter throughout
5m	copes	130 - brill	601 - ?
16	tricho	141 - chaet	683 jellies
41	siphon	170 - siphon	720 giant sculp
69	copes	195 - chain	729 giant jelly?
75	tricho	234 ?	803 (hydro) medusa?
84	amph	270 - pter?	854 larvacean?
92	chain/rod	300 ± quiet	1010 cal! 1 large red rotator?
100	- ? large	423 lg astraco?	1013 fish, franciscan jelly
125	chaet	577 - pter? Limac.	

pteropod 1015
1904272700 - styl (prob)
1914831200 " "
1996671300 ± ~
2009273700 - stylCOMMENTS: This cast immediately followed #9 after
changing SP to 54. Battery ran down before

VPR DATA SHEET

Day
1000mCruise OC473 Location Ce Cast # 11Date 8/14 Wind Speed _____ Direction _____Year/Day 225 Sea State 8 wells 3-5'Local Time 13:12 to 14:44 Start Lat 37.5006 Long -52.0028GMT Time 16:12 to 17:44 End Lat 37.5007 Long -51.9901Start Battery 20.2End Battery 24.9Magnification 51Raw 1313338 340.dat ^(4GB)Processed Directory c:/data/oc473/vpr11/

Filename

43683439214409344232

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

start frame 3600 (6m)
end frame 34,500 (1015m)Depth Frame # small corals here + there - sparse cast overall6-20 trichs w/ Macrosetella 705 - polychaete60 - trichs w/ Macrosetella → 760+ very little110-114 trichs 800- small stuff. Snow/corals110-200-280 very little 898 spoggy - larvae? / worm?250 ostracod max = 1015 meters280-300 - large Heropod (5916063900.tif) pteropod rois:300-500 still not much 5916063900 - large Clid +566 - fecal/snow, sm. corals629 - large thig w/ long chains+ 672 - large, thinner tentacles

COMMENTS: _____

Dusk
1000 m

VPR DATA SHEET

Cruise 0C473 Location 7 Cast # 12

Date 8/14/11 Wind Speed _____ Direction _____

Year/Day 225 Sea State calm

Local Time 17:58 to 19:28 Start Lat 38.0007 Long -52.0004

GMT Time 20:58 to 22:28 End Lat 37.9834 Long -51.9868

Start Battery 27.6 End Battery 25.4

Magnification 51

Raw 1313355353.dat Processed Directory c:/data/0C473/vpr12
Filename

frame
start: 4600
end: 32000

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame # looked at every image for pteropods: (NTC 8/15/11)

7575716400 - Lima?ina?

76068497200 - tiny - Lima?

7694610500 - small - Hyalocylis?

COMMENTS: _____

Night 1000m

VPR DATA SHEET

Cruise 0C473 Location 8 Cast # 13

Date 8/15/11 Wind Speed _____ Direction _____

Year/Day 226 Sea State calm

Local Time 03:40 to 0440 Start Lat _____ Long _____

GMT Time 06:40 to 07:40 End Lat _____ Long _____

Start Battery _____ End Battery _____

Magnification S4

Raw Filename 1313390025. Processed Directory C:/data/0C473/vpr13

start frame 15500 (22m)
end frame 34200 (1013m)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame # looked at all rois for pteropods - (NISC elish)

roi 2420376400 - ? pteropod?

2426076000 - sub, not ptero

2437413500 " "

2453390300 - ? Stylida

2512798500 - probably not ptero

COMMENTS: _____

Day 1050m

VPR DATA SHEET

Cruise OC 473 Location sta 8 Cast # 14

Date 8/15/11 Wind Speed _____ Direction _____

Year/Day 226 Sea State calm (1-3')

Local Time 12:51 to 13:56 Start Lat 38.5702 Long -51.7444

GMT Time 15:51 to 16:56 End Lat 38.5766 Long -51.7105

Start Battery 27.5 End Battery 26.1

Magnification 51

Raw Filename 1313423348.dvi Processed Directory c:/data/OC473/vpr14

Frame start: 7700 (3.2m)
and : 37,500 (10.3m)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth _____ Frame # _____ Looked at all rois for pelopods (see 8/15/11)

roi: 5760604100 - Limacina?

588848700 - Styliola?

5909150900 - ? Shelled critter

5923197500 - * Limacina *

COMMENTS: _____

Dusk
587 m

VPR DATA SHEET

Cruise DC 473 Location 9 Cast # 15

Date 8/15/11 Wind Speed _____ Direction _____

Year/Day 226 Sea State calm

Local Time 17:35 to 19:14 Start Lat 38.99767 Long -51.992050

GMT Time 20:35 to 22:14 End Lat 38.98173 Long -51.92018

Start Battery 27.2

End Battery 26.3

Magnification 51

Raw 1313440406

Processed Directory MOC C:\data\00473\ vpr15

Filename

* harddrive filled up (mostly in /Recycler/ - reformatted) Frame start = 4300 (3.2 m)
and = (587 m)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame # * no pteropods in downcast vris

tricho

COMMENTS:

VPR DATA SHEET

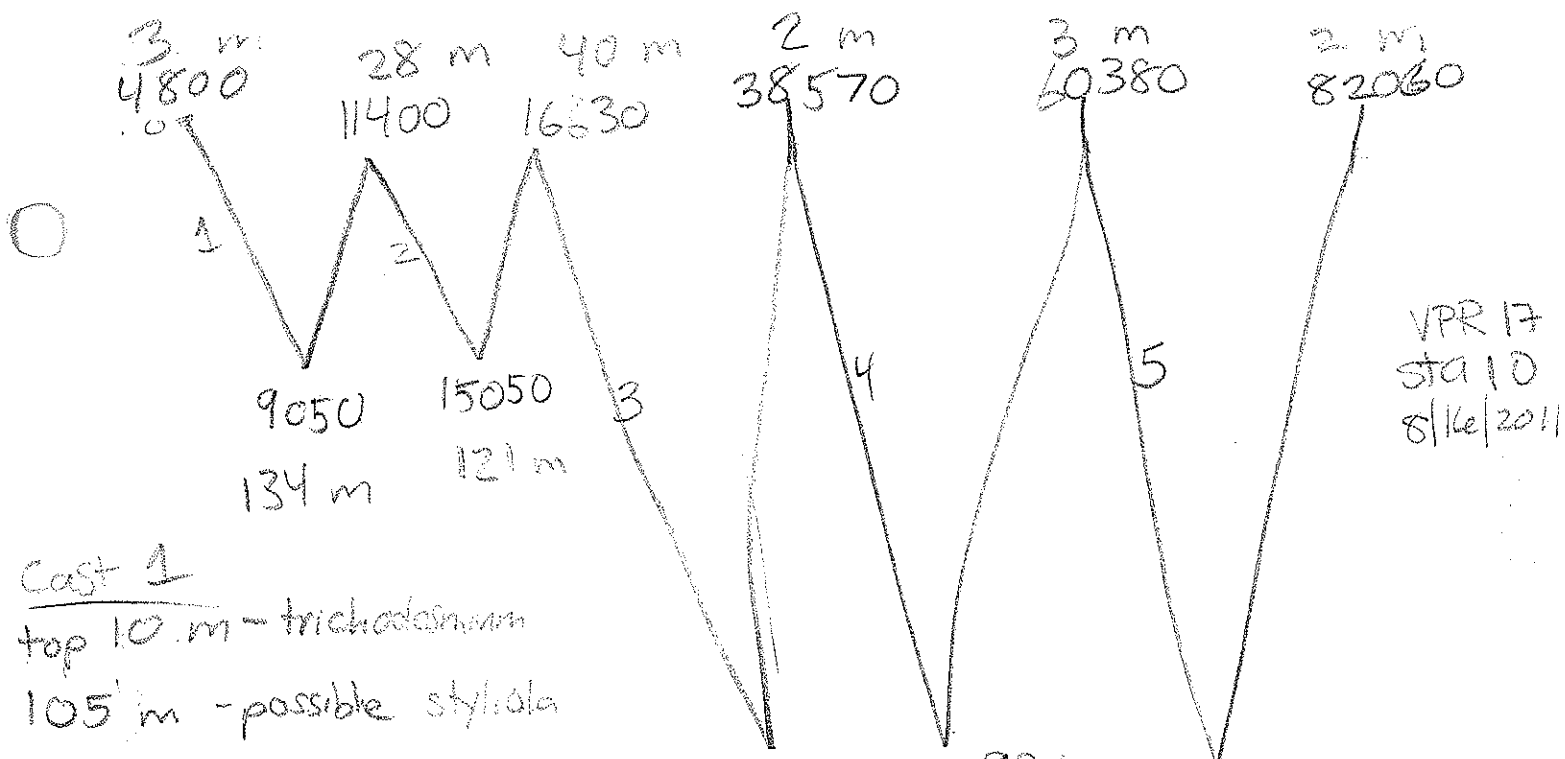
Night

Cruise OC473 Location station 10 Cast # 16Date 8/15/11 Wind Speed _____ Direction _____Year/Day 226 Sea State calmLocal Time 23:54 to 8/16/11 01:18 Start Lat 39.4829 Long -51.9852GMT Time 02:54 to 04:18 End Lat 39.4819 Long -51.9767Start Battery 28.0 End Battery _____Magnification 51Raw 1313463214.det
FilenameProcessed Directory C:/data/OC473/vpr16frame start: 5200
end: 30,100

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth _____ Frame # trichopteropod rois: 1086467700.tif - Hyalocylis striata?? 1087791800 - probably not a pteropod? 1108321800 -- 1154750500 - ? Styliola1231807200 - ? Limacina?

COMMENTS: _____



Cast 1
top 10 m - trichodermis
105 m - possible styliola

Cast 2
tricho
siphon? - small
94 m - siph? - small
110 m - large coral

Cast 3 40-500
40-120 - small coral
197 - null?

Cast 4 3-500 m
0-16 m tricho? siphon? 5
50-520 etc, pterion?
60 jelly
70 larvacean
81 coral
95 no show
100-120 coral
120-140 lg. coral tail
140-160 coral
160-200 coral
200-250 coral
250 coral
300 siphon

Cast 5 2-514 m
surf - 10 tricho
10 cope
16 ? ptero
32 15 tricho
432 - large pterion on edge?

Cast 5 depth 6200 - ~6600
50.67 - 61.22 m

We stayed at sta. 10 to allow a storm to pass.

Day 4040
0-500m

VPR DATA SHEET

Cruise 0C473 Location sta. 10 Cast # 17
Date 8/16/11 Wind Speed 8.7 m/s Direction 196°
Year/Day 227 Sea State calm
Local Time 1540 to 17:00 Start Lat 39.440167 Long -51.971217
GMT Time 1840 to 20:16 End Lat 39.43418 Long -51.9699
Start Battery 27.4 End Battery 25.5
Magnification S1

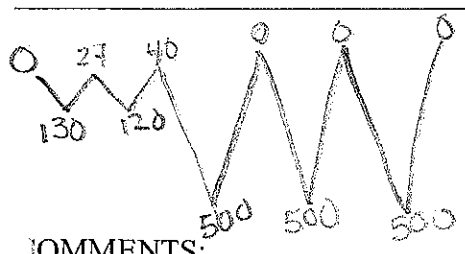
Raw 1313519891.dat Processed Directory C:/data/0C473/VPR17
Filename

start frame : see
end : previous page

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame # I think I see diatoms in surface that are not being extracted

- possible pteropods:
- 6802557000 - 1 macro pteropod
- 6816138500 - ~ tiny lim.
- 6838364200 - ~ tiny styl
- 7014395100 ~ styl/snow
- * diatom chains @ 50-65m



at end of cast, turned off, then rebooted + moved to S3 to refocus camera, then off.

COMMENTS:

Day (am)
1000m

#1313578713: frame start extracm = 3500 (2m)
end = 35700 (6/0/5m)

COMMENTS:

VPR DATA SHEET

Cruise OC473 Location st. 12 Cast # 19
 Date 8/17/11 Wind Speed 7.2 Direction 224°

Year/Day 228 Sea State 3-5' swells from SW

Local Time 13:02 to 14:26 Start Lat 40.47827N Long -52.00852

GMT Time 16:02 to 17:26 End Lat 40.472912N Long -52.61752

Start Battery 27.2
 Magnification 52x

End Battery 25.1

Raw 1313596752
 Filename

Processed Directory C:/data/OC473/vpr19

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

start 5200
 end 35000

Depth Frame #

possible pteropod rois:

2-15	Tricho	4028602700	- styl.
285	long pteropod?	4028853500	"
341	pteropod	4194862300	"
660	siphonophore	4080031700	" / oles
		4192969600	"
		4008111300	Limacina
		3986973200	"
		4128556200	Hyalocypis?
		4079697900	styl.

COMMENTS:

VPR DATA SHEET

Cruise 0C473 Location station 13 Cast # 20

Date 8/18/2011 Wind Speed _____ Direction _____

Year/Day 229 Sea State _____

Local Time 03:22 to 04:17 Start Lat 40.81603N Long 52.092750

GMT Time 06:22 to 07:17 End Lat 40.809493N Long 52.103817

Start Battery 226
Magnification 52

End Battery 260

Raw 1313648149
Filename _____

Processed Directory C:\data\0C473\vp120

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

Depth	Frame #	Observations
surface		tricho
56.5		larvacean
75		lots of jumbo diatom
66.4		limac.
2m		small stylida
2.5		krill
2.8		small fish larva
3.4		dark cope - Candacia ethiopica?
6.3		Limn.
8.5		stylida/clio
13.6		polydora
18.28		siphon
26.386		ptero?
28.7		ptero?
31.0		krill/fucilia/mysid
33.6		ptero
40.4		siph
41.3		larv.
41.96		krill/styl?
46.96		ptero?

COMMENTS: common organism - large elongate fish - white - close - close alrad
Snow clumps 100→

Night
1000m

frame → 1011

* 36 possible pteropods copied to
C:\data\0C473\pteropod.rois\vp120

VPR DATA SHEET

Day
1000m

Cruise 00473 Location st. 13 Cast # 21

Date 8/18/11 Wind Speed 5.2 m/s Direction 83°

Year/Day 229 Sea State 3' swell

Local Time 1011 to 1104 Start Lat 41.036217N Long -51.898067

GMT Time 1311 to 1404 End Lat 41.033900N Long -51.896250

Start Battery 27.5

End Battery 25.9

Magnification 52

Raw 1313672897
Filename

Processed Directory c:\data\00473\vpr21\

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth	Frame #	
1.7	4970	start extraction
1015	32100	end extraction
2		tricho, flatworm (green)
6-12		long skinny chaeta or tricho
31		radiolarian
38		large image chaeta?
54		cool copepod?
66		chaeta or flatworm? limacina?
89		full jelly
128		limacina?
280s		chaetognaths
637		large image - maybe pseudoscorp. wings or heteropod?
658		- ptero?
940		- medusa
733		- pteropod

all vrs examined - 12 possible ptero pods
in c:\data\00473\pteropod-vrs\vpr21

COMMENTS:

Day
1000m

VPR DATA SHEET

Cruise OC473 Location 51.14 Cast # 22

Date 8/18/11 Wind Speed 6 m/s Direction 97.5

Year/Day 229 Sea State 3' swells

Local Time 14:09 to 15:31 Start Lat 41.4972N Long -51.9926

GMT Time 17:09 to 18:31 End Lat 41.4654N Long -51.9593

Start Battery 27.5
Magnification 52

End Battery 25.7

Raw 1313687162
Filename

Processed Directory C1/data/OC473/VPR22

start frame 5000 3.63m
end 34900 1015

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame # locked at all VOIS; possible pteropods -

377m - 6264563600 - Loricina* - definite

593m - 6310290700 - Styl/Clio ?

COMMENTS: _____

Night
100m

VPR DATA SHEET

Cruise 00473 Location Station 15 Cast # 23

Date 8/19/2001 Wind Speed _____ Direction _____

Year/Day 229 Sea State Small Swells

Local Time 23:55 to 01:22 Start Lat 42.029667 N Long 50.542617 W

GMT Time 00:55 to 04:22 End Lat 42.06775 N Long 50.511417 W

Start Battery 27.6 End Battery 25.7

Magnification 52

Raw 1213722417
Filename

Processed Directory C:\data\00473\VP123

start 8256 (2m)
end 37200

INTERESTING OBSERVATIONS MADE DURING EXTRACTION:

Depth Frame # examined all xis for possible pteropods

25m 1104655702 - definite Limacina

? 110506000 - ditto

1105268400 - Limacina ✓

1105275601 " same one

1105285201 " nice

35m 1106475001 " nice

170 - small
cosiphris

many red green-white surface-30-50-

COMMENTS:

Day 1000m

VPR DATA SHEET

Cruise 06473 Location Station 16 Cast # 24
Date 8/19/2011 Wind Speed 10.9 Direction 62°
Year/Day 230 Sea State 3'
Local Time 0737 to 08:51 Start Lat 45.49939 Long -49.19945
GMT Time 10:37 to 11:51 End Lat 42.49995 Long -49.178483
Start Battery 27.7 End Battery _____
Magnification 52
Raw 1313750183 Processed Directory c:/data
Filename _____

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

Surface - ^{+030?} very thick w/ filaments - diatom chains	
50-7 - more particulate - lots - snow, becoming sparser by 150	
184 - krill	505 - nice jelly?/rad
200-250 large snow clumps	545 - copeps, larvae
259 - Ctenophore	563 - medusa
268 - jelly	680 - little chuff snow? some copeps
272 - krill	702 - rad
276 - large ctenoph.	736 - Calanus, large
320 - nice mix/cteno	795 - siphon, snow
412 - large chuff?	820 - larvae, cope
400-7 copeps	840 - cope, snow
480 - 1200-1500	908 - nice copepod
	922 - Calanus?, small stuff/snow
	946 - nice thing
	980 - chuff
	996 - ost.

COMMENTS:

Day 1000m

VPR DATA SHEET

Cruise OC-473 Location st. 17 Cast # 25

Date 8/19/11 Wind Speed 7.8 m/s Direction 247°

Year/Day 231 Sea State 1-3'

Local Time 15:25 to 16:24 Start Lat 43.00340 Long -47.773217

GMT Time 18:25 to 19:24 End Lat 43.00187 Long -47.751183

Start Battery 27.4 ± .1 End Battery 25.9

Magnification 52

Raw Filename 1313778278

Processed Directory c:/data/oc473/vpr25

Frame start: 5500 (3.7 m) Frame stop: 32500 (1011 m)
(downcast)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

-----		possible pteropods. 6669122200 6669543100 6681787301	
70 -	show		
376 -	ccp		

COMMENTS: _____

VPR DATA SHEET

Night 1000m
S2Cruise OC-473 Location Station 17 Cast # 26Date 8/20/2011 Wind Speed _____ Direction _____Year/Day 231 Sea State calmLocal Time 01:15 to 02:44 Start Lat 43.109583 Long -47.672250GMT Time 04:15 to 05:44 End Lat 43.149670 Long -47.609167Start Battery 25.7
Magnification 52End Battery 24.6→ Ran out
of battery
on way down
data got
checked upRaw 131383981
Filename 1313816598
1313816964Processed Directory C:\Data\OC473\VP126Frame start: 7600 (m) Frame stop: 35010 (m)
(downcast)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

3 7650 cast begins804 35010 1313813981.idx ends835-867 1313816596.idx start-end 1370 frames898-920 1313816790.idx start-end 1074 framescast goes to 938 1313816964.idx and waits before continuing7 m copepods11 m oteropod?15-60 m filamentous "snow"126, 160 chaetognaths430 larvae644 krill

COMMENTS: _____

Day
1000 m

VPR DATA SHEET

Cruise OC-473 Location station 18 Cast # 27

S1

Date 8/20/11 Wind Speed 5 m/s Direction 208.6°

Year/Day 231 Sea State calm

Local Time 14:50 to 16:12 Start Lat 43.497267 Long -46.354000

GMT Time 17:50 to 19:12 End Lat 43.486867 Long -46.341450

Start Battery 27.2 End Battery 25.6

Magnification S1

Raw 1313862592
Filename

Processed Directory c:/data/oc473/vpr27

Frame start: 3510 (4 m) Frame stop: 31180 (1014 m)
(downcast)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

12 m krill 644676 5800 ft

25-35 m possible limachas

47 m jelly

64 m pteropod

184 m larval can or chaetognath

~360 m possible pteropods

536 m medusa

688 chaetognath

COMMENTS: many Limacina in MOC tow

Night

VPR DATA SHEET

Cruise OC-473 Location Station 19 Cast # 28

Date 8/21/11 Wind Speed _____ Direction _____

Year/Day 232 Sea State Calm

Local Time 1:48:00:23 to 1:48 Start Lat 43.947783 Long 44.904183

GMT Time 4:48:03:23 to 4:48 End Lat 43.930533 Long -44.917183

Start Battery 27.4 End Battery 25.5

Magnification 52-?

Raw 1313896681
Filename

Processed Directory C:\data\OC473\VP128

Frame start: 4600 (4 m) Frame stop: 34300 (1020 m)
(downcast)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame # 105 of snow

<u>0-20</u> larvaceans	<u>395</u> - Calanus
<u>30</u> - Limacina - several	<u>418</u> - cool chert/larven/fish?
<u>50</u> krill	<u>473</u> - little stuff
<u>60</u> - snow/larv	<u>525</u> - Paraeuchaeta (lg. cope)
<u>80</u> - large snow	<u>854</u> - large cope - Calanus?
<u>90</u> - Limacina	<u>900</u> - Limacina shell (sinking?)
<u>100-120-130</u> snow	
<u>131</u> - krill & nice	
<u>140</u> - limac?	
<u>150</u> - snow	
<u>170</u> snow	
<u>230</u> - smaller stuff	
<u>300</u> Calanus	
<u>370</u> - nemertean?	
<u>378</u> - Calanus	

COMMENTS: _____

Day

VPR DATA SHEET

Cruise OC-473 Location Sta. 20 Cast # 29

Date 8/21/11 Wind Speed _____ Direction _____

Year/Day _____ Sea State _____

Local Time 08:33 to 09:44 Start Lat 44.505867 Long -43.463450

GMT Time 11:33 to 12:44 End Lat 44.5338 Long -43.437717

Start Battery _____ End Battery 26.0
Magnification 51

Raw 1313926347 Processed Directory _____
Filename

Frame start: 3350 (2 m) Frame stop: 32500 (1014 m)
(downcast)
INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

58 - jillies small button	540 - lg. cope
52 - medusa	544 " "
61 - polychaete	
102 - jelly - large	
132 - Limacina	
183 - chael.	
233 - huge jelly	
254 -	
299 - chael	
306 - ctenophore - nice	

COMMENTS: _____

Day afternoon

VPR DATA SHEET

Cruise OC-473 Location sta. 21 Cast # 30

Date 8/21/11 Wind Speed _____ Direction _____

Year/Day 232 Sea State _____

Local Time 16:04 to 17:03 Start Lat 44.998300 Long -42.001633

GMT Time 19:04 to 20:03 End Lat 44.988300 Long -41.989167

Start Battery 27.4 End Battery 26.1

Magnification 51

Raw Filename 1313986692 Processed Directory c:/data/oc473/vpr30

Frame start: 4450 (2.5 m) Frame stop: 32900 (1013 m)
(downcast)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame # (MOC caught lots of *Limacina retrocurva*)

10 - flatworms	447 - ost
12 - rad	
18 - <i>Limacina</i> ?	~450 - small copepod wings
54 - jelly/such	475 - ptero?
78 - <i>Limacina</i> ?	~600 - lg. cope
100 - ostracod	650 - large medusa
118 orithona	705 - button medusa
	685 - lg. cope
	738 - orithona
	810 - <i>limacina</i> shell
230 - <i>limacina</i> ? or other pter	834 - cope
288 - cool jelly	918 - <i>limacina</i> ?
	940 - cope
319 - lg. jelly	1006 - gymnosoma?
323 - " "	
335 - cope	
390 - cope	
420 - "	
438 - amph-blony	

COMMENTS:

Night

VPR DATA SHEET

Cruise OC-473 Location station 21 Cast # 31

Date 8/22/201 Wind Speed _____ Direction _____

Year/Day 233 Sea State _____

Local Time 01:22 to 02:27 Start Lat 44.845683 Long -71.914483

GMT Time 04:22 to 05:27 End Lat 44.836650 Long -71.893050

Start Battery 27.8 End Battery 26.1
Magnification 51

Raw 1313486692 Processed Directory C:\data\OC473\VP31
Filename

Frame start: 4000 (3 m) Frame stop: 34250 (1013 m)
(downcast)
INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

812 - Lima. shell?
816 - Calanus
875 "

COMMENTS: _____

VPR DATA SHEET

Day
1580 m

Cruise OC-473 Location 5.22 Cast # 32
Date 8/22/11 Wind Speed 5.8 m/s Direction 197.2
Year/Day 233 Sea State calm
Local Time 13:08 to 14:19 Start Lat 45.5002 Long -41.99645
GMT Time 16:08 to 17:19 End Lat 45.4965 Long -41.9843
Start Battery 27.4 End Battery 25.8
Magnification 51

Raw 131 4029294
Filename

Processed Directory c:/data/oc473/vpr32

Frame start: 3500 (3 m) Frame stop: 31,300 (103 m)
(downcast)
INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

13 - medusa
37 - ~~salp~~ chain
~40 - pteropods
50 " ? salpinae
140 chaet
224 - lg. chain/segments
256 - ctenophore
296 - coiled shell?
329 - rope

COMMENTS:

Day 1000 m
51

VPR DATA SHEET

Cruise OC-473 Location st. 23 Cast # 33
Date 8/22/11 Wind Speed 5.7 m/s Direction 169°
Year/Day 233 Sea State 1-3' raining
Local Time 17:34 to 18:44 Start Lat 45.99775 Long -42.000467
GMT Time 20:34 to 21:44 End Lat 46.00148 Long -42.002900
Start Battery 27.5 End Battery 25.7
Magnification 51

Raw 1314045140 Processed Directory c:/data/oc473/vpr33
Filename

Frame start: 5700 (2.3 m) Frame stop: 32,600 (1009 m)
(downcast)
INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth	Frame #
-----	-----
-----	-----
-----	-----
-----	-----
-----	-----
-----	-----
-----	-----
-----	-----
-----	-----
-----	-----

COMMENTS: _____

Night 1000m
51

VPR DATA SHEET

Cruise OC-473 Location st. 24 Cast # 34

Local Date 8/22/11 Wind Speed _____ Direction _____

Year/Day 233 Sea State 1-3'

Local Time 23:00 to 00:31 Start Lat 46.5024 Long -41.96785

GMT Time 02:00 to 03:31 End Lat 46.5122 Long -41.93638

Start Battery _____ End Battery _____

Magnification 51

Raw 1314064686
Filename

Processed Directory 'moc' c:/data/oc473/vpr 34

Frame start: 16500 (2 m) Frame stop: 34700 (1014 m)
(downcast)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth _____ Frame # _____

2 - Limacine
20 larvae
190 ? plus

COMMENTS: _____

Dawn 1000 m
51

VPR DATA SHEET

Cruise OC-473 Location st. 25 Cast # 35

Date 8/23/11 Wind Speed _____ Direction _____

Year/Day 234 Sea State 1-3'

Local Time 03:49 to 05:14 Start Lat 47.12057 Long -42.01322

GMT Time 06:49 to 08:14 End Lat 47.50047 Long -42.00113

Start Battery 287 End Battery _____

Magnification 81

Raw 1314081909
Filename

Processed Directory c:\data\oc473\vpr35

Frame start: 16500 (3 m) Frame stop: 35.000 (1009 m)
(downcast)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

13 - cores

19 - pteropod

111 - snow

150 - cores

~480 - pteros

660 - Lima

COMMENTS: _____

Day 1000 m
51

SS^oT=63.4

VPD DATA SHEET

Cruise OC-473 Location st. 26 Cast # 36 pyramidata

Date 8/23/11 Wind Speed 9.7 m/s Direction 169.7°

Year/Day 234 Sea State 1-3' misty

Local Time 08:16 to 09:14 Start Lat 47.50047 Long -42.00113

GMT Time 11:16 to 12:14 End Lat 47.50837 Long -42.02323

Start Battery _____ End Battery _____

Magnification 31

Raw 1314098091 Processed Directory _____

Filename

Frame start: 4000 (3 m) Frame stop: 32700 (1013 m)
(downcast)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

20 - pter 612 - ptero?
25-30 larvacemms
62 - medusa/siphon
80-100 - very little
163 - cool large thing
pill
360 - salp
381 - CPyramidata!
400 "

COMMENTS: _____

Night 100

COMMENTS:

Dec 1950

COMMENTS:

Day 100

COMMENTS:

VPR DATA SHEET

Day 1000

Cruise OC 473 Location st. 29 Cast # 40Date 8/24/11 Wind Speed _____ Direction _____Year/Day 235 Sea State _____Local Time 14:53 to 16:01 Start Lat 49.000083 Long -42.001500GMT Time 1753 to 1901 End Lat 49.018383 Long -42.010950Start Battery 27.8End Battery 25.6Magnification S1Raw
Filename 1314208318Processed Directory C:\data\OC473\upr 40Frame start: 4780 (3.7 m) Frame stop: 31100 (1013 m)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

30	Larvaceans & salps
64	medusa?
220	good copepod
415	? jelly, or salp - large
450	radiolarian
481	possible pteropod, odd shape 
560	medusa
670	siphonophore or other group
782	nice copepod
856	possible pteropod
910	medusa

COMMENTS: _____

1000 Night

COMMENTS:

Night 1000

VPR DATA SHEET

Cruise 00473 Location 31 Cast # 42

Date 8/25 Wind Speed _____ Direction _____

Year/Day 236 Sea State _____

Battery
died

Local Time 3:29 to 4:38 Start Lat 50.065717 Long -41.767400

GMT Time 629 to 738 End Lat 50.069750 Long -41.735300

Start Battery 24.3 ? End Battery 24.3 *
Magnification 51

Raw 1314253476: 3-762m Processed Directory c:/data/00473/Vpr42

Filename	Range	
1314254071: 104-180m	1314254657: 387-402m	1314255252: 609-617m
1314254310: 225-231m	787: 443-445m	371: 654-668m
1314254417: 280-345m	938: 502-527m	512: 714-720m
	5112: 559-575m	620: 786-792m
		727: 858-886m
		868: 941-971m
		6019: 1025-1031m

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame # missing ~600 meters of down cast due to system rebooting

3-62
109-

306- pteropod

565 pteropods

COMMENTS: _____

Day
1080

start = 4500
stop = 31700 (1015)

Depth	Frame #
-------	---------

COMMENTS:

Night
1000

VPR DATA SHEET

Cruise 0C473 Location J. 32 Cast # 44

Date 8/26/11 Wind Speed _____ Direction _____

Year/Day 237 Sea State calm/swells

Local Time 04:20 to 05:52 Start Lat 49.078767 Long -44.363107

GMT Time 07:20 to 08:52 End Lat 49.066717 Long -44.367933

Start Battery 27.8 End Battery 25.1
Magnification S1

Raw 1314343116 (0-1000-50) Processed Directory C:/data/0C473/VPR44

Filename (ends at 50m on 10/4/00) Start - 6000 (3.5m)
1314348513 (23m-deck) End - 34,200 (1014m)

INTERESTING OBSERVATIONS MADE DURING EXTRACTION

Depth Frame #

calanus

COMMENTS: _____
