

SWL 2015 - July

C30 - DBO

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SLIP 1 -

July 14, 2015

fm 1: 0

fm 2: 420

bottom depth: 76 m / 70 m

time: 08:39

SLIP 2

July 14, 2015

fm 1: 420

time: 10:33

fm 2: 860

bottom depth: ~~77 m / 70 m~~ 84 m / 77 m

Rite in the Rain

SLIP 3

fm1: 860

fm2: 1170

bottom depth: 73m/66m

July 14, 2015

time: 15:08

SLIP 5

fm1: 1170

fm2: 1400

bottom depth: 67m/60m

July 14, 2015

time: 19:43

SLIP 4

fm1: 1400

fm2: 1800

bottom depth: 74m/67m.

July 14, 2015

time: 23:57

UTBS 4 July 16, 2015
fm1: 2930 time: 02:14
fm2: 3030
bottom/wire out 48m/41m

UTBS 1 July 16, 2015
fm1: 3030
fm2: 3300 time: 05:13
bottom depth: 48m/41m

BRS 3 7-16-15
fm1: 3300 time: 10:09
fm2: 3560
bottom depth/tow 53m/46m

UTN 1 7-16-15
fm1: 3580 time: 15:42
fm2: 3760
bottom/tow 35m/28m

Rite in the Rain.

BCL 62 July 15, 2015
fm1: 1800
fm2: 2100 time: 07:29
bottom depth: 53m/46m

*flow meter read incorrectly initially. Sample labels need to be corrected

UTBS 5 July 15, 2015
fm1: 2120
fm2: 2460 time: 15:22
bottom depth: 48m/41m

UTBS 2 July 15, 2015
fm1: 2460 time: 18:32
fm2: 2730
bottom depth: 46m/40m

Rite in the Rain.

Sec 7 July 17, 2015

fm 1: 5010

fm 2: 5240 time: 12:22

bottom depth: 44m/37m

Sec 6

fm 1: 5240 JULY 17, 2015

fm 2: 5500 time: 13:39

bottom depth: 49m/42m

Sec 5

fm 1: 5500 July 17, 2015

fm 2: 5770 time: 15:07

bottom depth: 51m/44m

Sec 4

fm 1: 5770 JULY 17, 2015

fm 2: 6060 time: 17:59

bottom depth: 53m/46m

Rite in the Rain

UTN 2

fm 1: 3760

fm 2: 4040

bottom depth: 46m/39m

July 16, 2015

time: 18:42

UTN 3

fm 1: 4040

fm 2: 4370

bottom depth: 50m/43m

July 16, 2015

time: 21:36

UTN 4

fm 1: 4370

2 4660

bottom depth: 51m/44m

July 16, 2015

time: 23:41

UTN 5 Sec 8

fm 1: 4660 4840

fm 2: 5010

bottom depth: 35m/28m

- did additional tons due to unknown floats

Rite in the Rain in the water.

July 17, 2015

10:24

time: 10:45

from # 711S

UTN 7 0.1397 July 18, 2015

fm 1 7250

fm 2 7550

bottom/wire at 57m/50m

time: 5:53

DB04.6 new flow meter - July 19, 2015

fm 1: ~~7550~~ 55880

fm 2: 56080

bottom depth: ~~42m/35m~~ 42m/35m

time: 09:45

replaced flow meter with # 7300

DB04.5

fm 1: 56080 fm 2: 56300

depth: 44m/37m

time: 12:22

July 19, 2015

DB04.4

fm 1: 56300

fm 2: 56540

depth: 46m/37m

time: 14:55

July 19, 2015

Rite in the Rain.

Sec 3

fm 1: 6060

fm 2: 6380

bottom depth: 59m/52m

July 17, 2015

time: 20:19

~~Sec 2~~ UTN 6

fm 1: 6380

fm 2: 6660

bottom depth: 50m/43m.

July 17, 2015

time: 22:14

Sec 2

fm 1: 6660

fm 2: 6970

bottom/wire 51m/44m

July 17, 2015

time: 23:43

Sec 1

fm 1: 6970

fm 2: 7290

bottom/wire 51m/44m

time: 02:01

July 18, 2015

Rite in the Rain.

BarC-9 July 20, 2015
fm1: 57560
fm2: 57860 time 13:40
depth: 67m/60m

Barc-8 exchange beds July 20, 2015
 fm1: 57860 ↑ to 58220
 fm2: ~~58220~~ 58220 instead of
 depth: 74m/67m time: 14:42

B/C-7
fm1: 58220
fm2: 58620
depth: 85m / 78m

Ch Bar C6-
fm 1: 58620
fm 2: 59160
depth: 115 m / 100 m

Rite in the Rain.

DB04.3
fm1: 56540
fm2: 56890 * 56790
bottom depth: 47 m / 40m

JB04.2
Fm1: 56790
Fm2: 57030
bottom depth: 48m | 41m
July 19, 2015
time: 10:08

DB04.1
fm1: 57030
fm2: 57250
depth: 46m / 3m

Barf-10	July 25, 20
f _m 1: 57250	time: 12:43
f _m 2: 57560	
depth: 66m	59m

Rite in the Ruin.

BarC-1 July 21, 2015
fm1: 60960
fm2: 61200
depth: 47/40

Rite in the Rain.

BarC-5 July 20, 2015
fm1: 59160
fm2: 59670
depth: 130m/100m

BarC-4 July 20, 2015
fm1: 59670
fm2: 60210
depth: 116m/100m

BarC-3 July 20, 2015
fm1: 60210
fm2: 60660
depth: 94m/87m

BarC-2 July 21, 15
fm1: 60660
fm2: 60960
depth: 57m/50m

Rite in the Rain.

SLIP 7 - 7-14-16

many small copeps - probably
C. glacialis, bulk aliquots
taken into RNA later
(1 ml / tube). Small and
large aliquots. kept at
outside temp for 24
hours then put into
freezer.

Same for SLIP-23
appears to be fewer &
fewer copepods and ↑
in algae.

SLIP 5 - individual copepods
packed as they were
not that abundant
and, lots of clumps
of algae to pick
through

Rite in the Rain.

SWC 2015 - July
Copepod condition factor
experiments

Aim: To collect copepods
N + S or Bering Strait
to look for changes in
condition factor with
DNA/RNA ratio.

methods: bongos used to
catch zoops as usual
153 + 236µm nets -
animals collected from
236µm net into RNA
later - w/ 10 minutes of
catch, then rest put
into ethanol.

2 tubes of neo collected
2 tube of stars collected
random picked Calanus and dead ones

Rite in the Rain.

BCL6a 7-15-15
7:29 PST

many neo-cal picked
to RNA later (I bungii) -
tubes 1 + 2 -

tubes 3 + 4 calanus
~ 10 / tube

Both neo-cal +
calanus $\bar{c}$ phyto in
pair ~~on~~ esophageus
but not obvious in
gut? not obvious overall
in terms of feeding as compared
both neo-cal + cal ~~SLIP~~ skin
vigorous!!! but
started to feed @ ~ 20 mins

** Tube 5 - neo-cal picked but
may be ~~caused~~ RNA later and in filter
caused ~~RNA later~~ ^{RNA later}

7-14-15

SLIP 4 ~ 12:00 AM

picked calanus individual

for SLIP 1, 2, 3, 5 all
cores very vigorous
~ full guts.

Will expect to see larger
cores for UTBS stations
and possibly note some
morbidity due to mixing
of water masses in
@ Chinew Basin.

Rate in the basin.

UTBS2 - no dead calanus
lots of calanus
few neo cal -

~10 calanus picked
~6 neo picked into
RNA later

looks more BS water-like
than Anadysr water
like, + no dead calanus
suggests BS dominant water

UTBS4 - neo cal + calanus 7-10-14
present + new cope? 2-AM

~10 cal picked (one looked
dead)

~10 neo cal picked all
looked vigorous.

Rite in the Rain.

UTBS1 7-14-14 ~3pm PST

Immacra limacina
Immacra heliana x2
comb jellys -

!!! (dead C. glacialis - opaque
... } in appearance, not moving
had not observed this
in previous tows - no calanus
reasonably abundant - but
vigorous - no noticeable dead
neo cal.

Rite in the Rain.

UTN-1

7-16-15

B#2a

no - neocalanus

~~not~~ some calanus
but perhaps 50% are
dead -
~10 calanus picked out
RNA later.

UTN2 - calanus + neocal
not super abundant

calanus about 50%
dead
neo-cal all alive.

Rite in the Rain.

UTBS-1

7-16-15 OS13

few neocal

many calanus

neo cal - just contents
very vigorous

calanus - v vigorous did
not check gut contents in

BES3

7-16-15 1009

~ 8 neo cal picked

~ 10 calanus picked

dead calanus + ~~some~~

but mostly live ones -

neo cal all very fine

calanus & gut contents

Rite in the Rain.

Sec 7 7-17-15

1 no neo cal

red ~~at~~ of small
copep (calanus or)
all seen alive.

Sec 6 7-17-15

1 neo-cal ~~1~~ picked
many calanus ~10 picked
guts green

Sec 5 7-17-15

neo-cal very full gut

Sec 4 7-17-15

1 neo-cal - alive
rest calanus - alive

Rite in the Rain.

UTN3

the 2136

no neo cal

all calanus (~10 picked)
alive.

UTN4

the 2341

1 dead neo cal

many very alive calanus
E green gut contents

Sec 8 - 7-17-15

no neo-cal, may not
be calanus either but
~10 copepods picked
all live, gut contents
evident.

Rite in the Rain.

UTN7 - high algae
1 but active corals
small coral
~10 pieces

DBO4.6 - high algae
few small corals
dead corals + dead
charognath -

DBO4.5

small water - ↑ phytopl

DBO4.4 many small corals
4 phytopl

DBO4.3 - med water no
dead - phytopl near no dead
actually dead - full gills -
Rite in the Rain.

ofo
Sec 3 - lots of corals
early stages - much
phytoplankton - seen pretty
clear.

UTN6 - much phytoplankton
many small corals all
alive (1 dead)
1 neo-cal (in etoh)

Sec 2

few corals
early stages

Sec 1

few corals
early stages

Rite in the Rain.

BarC7 July 20, 2015
1559

lots of chaetognaths incl
many dead chaetognaths -
no large copepods.

BarC6 small copepods
do not appear to
be actively feeding -
picked -

BarC5 - lots of phyto
very few large copepods
near 3 min - not active
little evidence of gut loading.

BarC4 - lots of phyto -
no large copepods
few medium Δ $\rightarrow$ small
copepods

Rite in the Rain

DBO 4.2 - many small
copeps - feeding actively
but some moribund?

BarC10 July 20, 2015
12:43

calanus + neo-calanus
both feeding. picked
to PNA later -

BarC9 July 20, 2015
1340

small calanus +
hyperboreus. picked

BarC8 July 20, 1442

adult hypern
juve hyperboreus both
picked - pos calanus
too - ~~many in surface~~ small fish

BarC3-

lots of phyto

only small corals

BarC2 small hy pers only

BarC1 small hy pers only
paled - noted ecto

