

CMOP Cruise Report -- 15-18 April 2010 – on RV Wecoma (W1004A)

Science Personnel:

Murray Levine (OSU) Chief Scientist,
Walt Waldorf (OSU), Michael Wilkin(OHSU), Katie Rathmell(OHSU),
Greta Klungness(OHSU), Victoria Campbell(OHSU), Charles Seaton(OHSU),
Jeff Schilling (OHSU), Peter Kahn (OHSU), Michelle Maier (OHSU), Nathan Webb (OHSU)

List of tasks accomplished:

Recovered NH-10 mooring (Sitka); deployed NH-10 mooring (Alder)
Recovered NH-10 ADP mooring; deployed NH-10 ADP mooring
CTD at NH-10
Deployed OGI-01
Deployed Glider north side of plume
Plume CTDs (P-1,P-2,P-3,P-4)
South Channel anchor station CTDs at slack water (SC-1, SC-2, SC-3, SC-4, SC-5, SC-6)
North Channel anchor station CTDs at slack water (NC-1, NC-2, NC-3)
Calibration CTD: attach 4 conductivity sensors from Sitka to the ship's CTD; NH-25
Hooked up ISUS to CTD; tested; downloaded data from casts
Tested using Wilkin frame on ship's CTD for estuary work
Samples taken from underway flowthrough system from estuary to ocean
Video obtained for a production on moorings

Daily Log

All times are given in local PDT unless otherwise noted.

14 April – Loading Day

Schilling and Seaton arrived early. Levine and Waldorf arrived at noon having been delayed by 2 hours due to blockage on highway 20. Wilkin's group arrived at 1pm. The remaining OHSU group arrived after 4pm after stopping at Rogue in town to celebrate Maier's birthday with a free beer and T-shirt.

Deck loaded with buoys and anchors.

ISUS hooked up to CTD by O'Gorman and Langner. Seaton learns how to operate the software and is becoming an expert. ISUS mounted horizontally so not sure how to run a blank sample.

Upon request Daryl loaded the -80 deg freezer into the wet lab.

1500 Cruise meeting with Capt Rick on the bridge. Go over plan especially issues associated with the estuary sampling. Rick says we can go into estuary at night—suggests 0400 to cross the bar into the estuary.

Dinner at the near-by Rogue; Maier cashes in birthday perk for another free beer and T-shirt.

Schilling interviews Levine and Wilkin in wet lab for the Mooring video project.

15 April – Day 1

0750 Safety meeting held before leaving the dock. Great idea. Seaton demonstrated how to put on survival suit.

1215 Final approach on Sitka buoy. Beautiful weather!

1315 All recovered successfully.

1515 Start deployment of buoy Alder near NH-10. Deployment a success, however Wilkin asked about the swivel near the buoy and will it interfere with the wire connecting the inductive coupler. Yes it will! Swivel was put in the wrong place.

In the mean time the ship is working on the bow thruster which is having trouble staying online.

After dinner we recovered the ADP mooring near NH-10 and its anchor in a separate operation.

1930 Set up to recover Alder. Recovery a success.

2145 Back to the real NH-10 for a CTD with water (cast 1).

2200 Meeting with Capt. He is concerned about going into the estuary given the lack of a working bow thruster to be able to hold position. Maybe we could anchor in the estuary? Capt says, "Take one day at a time."

16 April – Day 2

Head north to OGI-01 site. Adjust ship speed to arrive about 0800.

0915 Ready to start deployment.

0925 Buoy rolled over the starboard side with wire and chain to follow. OGI-01 deployed. Anchor aweigh at 1641 UTC at 46deg 2.12'N, 124deg 14.61'W.

1000 Next operation is to deploy the CMOP glider. Head NW looking for higher S (32 psu ideal).

1315 At 46deg 30.14'N, 124deg 48.3'W flowthrough system shows 31.17 psu.

1330 Deployed glider in test mode tethered to a small surface float.

1630 Glider "released" and is on its own.

Head for CTD plume stations named P-1, P-2, P-3, P-4. (Casts 2,3,4,5)

17 April – Day 3

Enter Columbia River and anchored on station in South Channel:

46deg 13'N, 123deg 47'W at water depth of 12.2m

Prepare for CTDs at 1100, 1200, 1300 straddling slack tide (Casts 6,7,8)

Followed by CTDs at 1530, 1630, 1730 straddling slack tide (Casts 9,10,11)

Lifted anchor and moved to North Channel and did CTDs at the next slack water (Casts 12,13,14)

In preparation for the Spring Campaign the ship's CTD with Wilkin's frame was tested for operation at high current in the estuary. A modification needs to be made to add the LISST in self-contained mode.

18 April – Day 4

0000 head for NH-10.

1015 at NH-10 preparing for deployment of Alder mooring

1115 Mooring deployed: 4/18/2010 1815 UTC at 44deg 38.01'N, 124deg 18.22'W

Transit to NH-25 for calibration cast. Attached 4 microcats from Sitka mooring, which was recovered a few days ago. Water depth about 300m. Held CTD at 240m and 60m for about ½ hour each. Also, water taken at Chl max and surface.

1415 Off to Newport. ETA 1800 at the dock. All are leaving the Wecoma after dinner except Waldorf, Levine, Wilkin who spent the night aboard.

CTD Summary

All times here are UTC

Date	Day	Cast#	Station	Time
4/16	106	1	NH-10	0426
4/17	107	2	P-1	0148
4/17	107	3	P-2	0322
4/17	107	4	P-3	0457
4/17	107	5	P-4	0620
4/17	107	6	SC-1	1803
4/17	107	7	SC-2	1905
4/17	107	8	SC-3	2003
4/17	107	9	SC-4	2234
4/17	107	10	SC-5	2334
4/18	108	11	SC-6	0034
4/18	108	12	NC-1	0435
4/18	108	13	NC-2	0537
4/18	108	14	NC-3	0636
4/18	108	15	NH-25	