

# DAILY SCIENCE LOG BOOK

MISSION  
NUMBER

2022-030

Book 1/

DATE:

From: 3-2-2022

To: 3 June 2022

VESSEL:

Alta

PROJECT(S):

Barkley Sound Krill

Water Properties Group  
Fisheries and Oceans Canada  
Institute of Ocean Sciences  
Ocean Sciences Division  
North Saanich, BC, Canada

[WaterProperties.ca](http://WaterProperties.ca)

**\*\* The following 3 pages are VERY IMPORTANT as they document equipment and settings used on board \*\***

These pages are to be completed by the CTD Technician setting up the equipment, the Watch Leader on board, and the Chief Scientist **MUST** verify that all relevant sections are completed prior to leaving the vessel. Any mid-cruise changes to be noted by watch leader in the notes.

Data logging computer: \_\_\_\_\_

Data acquisition program: \_\_\_\_\_

CTD deck unit make: \_\_\_\_\_ model: \_\_\_\_\_ serial number: \_\_\_\_\_

### Primary CTD

Make: SBE model: 19p serial number: 4345

Primary temperature serial number: \_\_\_\_\_

Primary conductivity serial number: \_\_\_\_\_

Secondary temperature serial number: \_\_\_\_\_

Secondary conductivity serial number: \_\_\_\_\_

Transmissometer: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Transmissometer: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Fluorometer: Model Wetlabs Eco Cable gain: \_\_\_\_\_ s/n: 4185 P, S or ☒ NO pump?

Fluorometer: Model \_\_\_\_\_ Cable gain: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Oxygen sensor: SBE Model: 43 s/n: 3234 P, S or NO pump?

PAR sensor: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_ Surface PAR? Y / N

Other sensors: Pump, SBE ST s/n: 2780 ☒ S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

### Secondary CTD

Make: \_\_\_\_\_ model: \_\_\_\_\_ serial number: \_\_\_\_\_

Primary temperature serial number: \_\_\_\_\_

Primary conductivity serial number: \_\_\_\_\_

Secondary temperature serial number: \_\_\_\_\_

Secondary conductivity serial number: \_\_\_\_\_

Transmissometer: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Transmissometer: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_

Fluorometer: Model \_\_\_\_\_ Cable gain: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Fluorometer: Model \_\_\_\_\_ Cable gain: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Oxygen sensor: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

PAR sensor: \_\_\_\_\_ Model: \_\_\_\_\_ s/n: \_\_\_\_\_ Surface PAR? Y / N

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

Other sensors: \_\_\_\_\_ s/n: \_\_\_\_\_ P, S or NO pump?

CTD calibration bottle location (height above CTD in metres): \_\_\_\_\_

This also includes the bottle location above the CTD on non-rosette casts (e.g., W.E. Ricker)

# DAILY SCIENCE LOG

local (sunset at 18:05)

Ocean Sciences Division, Institute of Ocean Sciences

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| Month March  |              |     | Year 2022  |           |            | Vessel Alta   |                     |                       | Cruise ID 2022-030 |              |                       |              |               |                                                   |                                               |
|--------------|--------------|-----|------------|-----------|------------|---------------|---------------------|-----------------------|--------------------|--------------|-----------------------|--------------|---------------|---------------------------------------------------|-----------------------------------------------|
| Event Number | Station Name | Day | Time (UTC) | Time Code | Event Type | Firing Method | Positional Latitude | Information Longitude | Bottom Depth       | Max Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned                                   | Comments                                      |
| 1            | Sarita       | Z   | 17:47      | BE        | CTD        |               | 48°53.853           | 125°03.183            | 200                |              | 1 -                   |              | JNT et al     | <input type="checkbox"/> <input type="checkbox"/> | d,s hut<br>d,s, sal                           |
|              |              |     | 17:53      | BO        |            |               | ° .856              | ° .174                |                    | 196          | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> | s-chl<br>s-lugols                             |
|              |              |     | :59        | EN        |            |               | ° .874              | ° .066                |                    |              | 1 - 6                 |              |               | <input type="checkbox"/> <input type="checkbox"/> |                                               |
| 2            | Sarita       | Z   | 17:54      | MR        | Bot        | mes           | ° .856              | ° .174                | 200                | 196          | -                     | 2            |               | <input type="checkbox"/> <input type="checkbox"/> |                                               |
| 3            | Robbers      | Z   | 18:51      | BE        | bongo      | -             | 48°53.390           | 125°05.352            | 150                | 143          | 7 - 8                 |              |               | <input type="checkbox"/> <input type="checkbox"/> | 1st net was fouled<br>deployed E slash way on |
|              |              |     | :56        | BO        |            |               | ° .                 | ° .                   |                    |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> | 1 form 1 etoh                                 |
|              |              |     | 19:01      | EN        |            |               | ° .                 | ° .                   |                    |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> | 20°                                           |
| 4            | Robbers      | Z   | 19:05      | MR        | Bot        | mes           | 48°53.390           | 125°05.350            | 150                | 1            | 9 - 10                | 1            |               | <input type="checkbox"/> <input type="checkbox"/> | chl, lugols                                   |
| 5            | Swale        | Z   | 20:26      | BE        | CTD        |               | 48°55.188           | °13.172               | 87                 | 1            | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                                               |
|              |              |     | :30        | BO        |            |               | ° .186              | ° .070                |                    | 82           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                                               |
|              |              |     | :35        | EN        |            |               | ° .186              | ° .070                |                    |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                                               |
| 6            | Swale        | Z   | 20:30      | MR        | Bot        | mes           | 48°55.186           | 125°05.350            | 87                 | 82           | 11 - 16               | 2            |               | <input type="checkbox"/> <input type="checkbox"/> | d,s hut s-chl<br>d,s sal s-lugols             |
| 7            | Swale        | Z   | 20:47      | BE        | bongo      |               | °55.124             | 125°13.011            | 87                 | 80           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> | 15°                                           |
|              |              |     | :52        | BO        |            |               | ° .                 | ° .                   |                    |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> | 1 form, 1 etoh                                |
|              |              |     | :58        | EN        |            |               | ° .                 | ° .                   |                    |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> | 20°                                           |
| 8            | Coaster      | Z   | 21:45      | MR        | Bot        | mes           | 48°52.782           | 125°17.429            | 58                 | 1            | 17 - 18               |              |               | <input type="checkbox"/> <input type="checkbox"/> | chl, lugols - surfic                          |
| 9            | Coaster      | Z   | 22:00      | BE        | bongo      | -             | 48°52.780           | 125°17.414            | 58                 |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                                               |
|              |              |     | :05        | BO        |            |               | ° .                 | ° .                   |                    | 50           | 19 - 20               |              |               | <input type="checkbox"/> <input type="checkbox"/> | 1 form, 1 etoh                                |
|              |              |     | :10        | EN        |            |               | ° .                 | ° .                   |                    |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> | 25°                                           |

## Event Type:

BOT = Bottle cast (no CTD)  
CTD = Standalone CTD  
ROS = CTD in Rosette  
SET = Fish Set

## LOOP = Sea Water Loop

MOR = Mooring  
NET = Plankton Net Haul  
DRF = Drifter

## Bottle Firing Method:

US = Up / Stop (default)  
UN = Up / No stop  
DN = Down / No stop

## Time Code:

BE = Beginning Time of Cast  
BO = Bottom Time of Cast  
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## CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time  
MR = Messenger Release Time  
RE = Recover Mooring Time

Produced by the Water Properties Group, IOS

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Notes:

bongo successfully deployed a slight way on

no RBR on Robbers - others Sude, Loaster + Mack had the RBR

watch keepers Dave Porter, Phil Lavore, Luke + ~~Fern~~ Tony  
IOS - John Nelson

need to record TSK# net trip

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# DAILY SCIENCE LOG

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| Month <i>April</i> |                |          |              | Year <i>2022</i> |              |               | Vessel <i>Alta</i>          |                       |              | Cruise ID <i>2022-306</i> |                                  |              |               |                                                   |                                                                        |
|--------------------|----------------|----------|--------------|------------------|--------------|---------------|-----------------------------|-----------------------|--------------|---------------------------|----------------------------------|--------------|---------------|---------------------------------------------------|------------------------------------------------------------------------|
| Event Number       | Station Name   | Day      | Time (UTC)   | Time Code        | Event Type   | Firing Method | Positional Latitude         | Information Longitude | Bottom Depth | Max Pressure              | Sample Serial Numbers            | # of Bottles | Watch Keepers | Trns/FI Cleaned                                   | Comments                                                               |
| <i>1</i>           | <i>Sarita</i>  | <i>6</i> | <i>19:18</i> | <i>BE</i>        | <i>CTD</i>   |               | <i>48° 53.813</i>           | <i>125° 02.976</i>    | <i>185</i>   |                           | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>19:19 begin descent</i>                                             |
|                    |                |          | <i>19:22</i> | <i>BO</i>        |              |               | <i>° .782</i>               | <i>° .969</i>         |              | <i>175</i>                | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>ds sal</i><br><i>d.s nut</i>                                        |
|                    |                |          | <i>:27</i>   | <i>EN</i>        |              |               | <i>° .740</i>               | <i>° .016</i>         |              |                           | <i>1 - 87</i>                    |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>schle</i><br><i>s lugol's</i><br><i>d.s chl</i><br><i>s Lugol's</i> |
| <i>213</i>         | <i>Sarita</i>  | <i>6</i> | <i>19:17</i> | <i>HR</i>        | <i>BOT</i>   | <i>mes</i>    | <i>48° 53.828</i>           | <i>125° 02.971</i>    | <i>185</i>   | <i>175</i>                | -                                | <i>2</i>     |               | <input type="checkbox"/> <input type="checkbox"/> |                                                                        |
| <i>3</i>           | <i>Robbers</i> | <i>6</i> | <i>:</i>     | <i>BE</i>        | <i>6</i>     |               | <i>125° 02.971</i>          | <i>° .</i>            |              |                           | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> |                                                                        |
| <i>14</i>          | <i>Robbers</i> | <i>6</i> | <i>20:19</i> | <i>BE</i>        | <i>bongo</i> | <i>-</i>      | <i>48° 53.311</i>           | <i>125° 05.876</i>    | <i>150</i>   | <i>150</i>                | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>flow meter zeroed</i>                                               |
|                    | <i>Robbers</i> |          | <i>:23</i>   | <i>BO</i>        |              |               | <i>° .</i>                  | <i>° .</i>            |              |                           | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>530</i>                                                             |
|                    |                |          | <i>:27</i>   | <i>EN</i>        |              |               | <i>° .</i>                  | <i>° .</i>            |              |                           | <i>8 - 9</i>                     |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>1 form, 1 eth</i>                                                   |
| <i>415</i>         | <i>Robbers</i> |          | <i>20:27</i> | <i>HR</i>        | <i>BOT</i>   | <i>mes</i>    | <i>48° 53.195</i>           | <i>125° 06.217</i>    | <i>150</i>   | <i>1</i>                  | <i>108 - 111</i>                 | <i>1</i>     |               | <input type="checkbox"/> <input type="checkbox"/> | <i>chl, Lugol's</i>                                                    |
| <i>516</i>         | <i>Swale</i>   | <i>6</i> | <i>21:17</i> | <i>BE</i>        | <i>bongo</i> | <i>-</i>      | <i>48° 54.772</i>           | <i>125° 12.278</i>    | <i>100</i>   | <i>100</i>                | <i>11 - 12</i>                   |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>1 form, 1 eth</i>                                                   |
|                    |                |          | <i>:20</i>   | <i>BO</i>        |              |               | <i>° .</i>                  | <i>° .</i>            |              |                           | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>510</i>                                                             |
|                    |                |          | <i>:24</i>   | <i>EN</i>        |              |               | <i>° .</i>                  | <i>° .</i>            |              |                           | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>small amount of eth sample for BME</i><br><i>biobottle</i>          |
| <i>617</i>         | <i>Swale</i>   | <i>6</i> | <i>21:34</i> | <i>BE</i>        | <i>CTD</i>   |               | <i>48° 54.681</i>           | <i>125° 12.526</i>    | <i>100</i>   | <i>95</i>                 | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> |                                                                        |
|                    |                |          | <i>:38</i>   | <i>BO</i>        |              |               | <i>° .648</i><br><i>648</i> | <i>° .606</i>         |              |                           | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> |                                                                        |
|                    |                |          | <i>:40</i>   | <i>EN</i>        |              |               | <i>° .</i>                  | <i>° .</i>            |              |                           | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>off at 21:41</i>                                                    |
| <i>718</i>         | <i>Swale</i>   | <i>6</i> | <i>21:27</i> | <i>HR</i>        | <i>BOT</i>   | <i>mes</i>    | <i>48° 54.681</i>           | <i>125° 12.657</i>    | <i>100</i>   | <i>95</i>                 | <i>13 - 18</i><br><i>13 - 18</i> |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>ds sal</i><br><i>ds nut</i><br><i>s lugol's</i><br><i>s chl</i>     |
| <i>819</i>         | <i>Coaster</i> | <i>6</i> | <i>22:18</i> | <i>BE</i>        | <i>bongo</i> | <i>-</i>      | <i>48° 52.295</i>           | <i>125° 16.270</i>    | <i>83</i>    | <i>85</i>                 | <i>18 - 19</i>                   |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>1 form, 1 eth</i>                                                   |
|                    |                |          | <i>:21</i>   | <i>BO</i>        |              |               | <i>° .270</i>               | <i>° .392</i>         |              |                           | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> | <i>480</i>                                                             |
|                    |                |          | <i>:23</i>   | <i>EN</i>        |              |               | <i>° .280</i>               | <i>° .480</i>         |              |                           | -                                |              |               | <input type="checkbox"/> <input type="checkbox"/> |                                                                        |

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Notes:

\* Event numbers changed to keep sequential \*

This page is for any notes or observations

wind ~ 10 knts, current going same direction (boat blown W)

Event 4 (BOT at 1m<sup>3</sup> in Rubber's) was at a steep angle, current was strong, messenger wouldn't trigger Niskin. Used a boat hook

sea state 2-3 Beaufort

weather overcast when Alta left dock at 1830, ~~light~~ light rain at 2215

watch ~~kept by~~ keeper Dave Porter, Phil Lavaie, Ron Tanasichuk, Tony Pritchard,  
Carolyn McKinnon

## DAILY SCIENCE LOG

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Page 2 of 2[illegible]**Event Type:**

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*This page is for any notes or observations*

rain stopped before 2315

# DAILY SCIENCE LOG

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| Month <u>May</u> |                |          |              | Year <u>2022</u> |            | Vessel <u>ALTA</u> |                   | Cruise ID <u>2022-30C</u> |              |              |                       |              |               |                          |                     |
|------------------|----------------|----------|--------------|------------------|------------|--------------------|-------------------|---------------------------|--------------|--------------|-----------------------|--------------|---------------|--------------------------|---------------------|
| Event Number     | Station Name   | Day      | Time (UTC)   | Time Code        | Event Type | Firing Method      | Latitude          | Longitude                 | Bottom Depth | Max Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned          | Comments            |
| <u>123</u>       | <u>SARITA</u>  | <u>6</u> | <u>03:21</u> | <u>BE</u>        | <u>CTD</u> |                    | <u>48° 53.885</u> | <u>125° 02.85</u>         | <u>2.00</u>  | <u>185</u>   | -                     |              |               | <input type="checkbox"/> |                     |
|                  |                |          | <u>03:26</u> | <u>BO</u>        | <u>"</u>   |                    | <u>48° 53.885</u> | <u>125° 02.873</u>        |              |              | -                     |              |               | <input type="checkbox"/> |                     |
|                  |                |          | <u>03:31</u> | <u>EN</u>        | <u>"</u>   |                    | <u>° 53.907</u>   | <u>° 02.710</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |
| <u>2</u>         | <u>SARITA</u>  | <u>6</u> | <u>03:31</u> | <u>MR</u>        | <u>BOT</u> |                    | <u>° 53.1312</u>  | <u>° 05.423</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |
| <u>3</u>         | <u>ROBBERS</u> | <u>6</u> | <u>04:14</u> | <u>BE</u>        | <u>NET</u> |                    | <u>° 53.232</u>   | <u>° 05.387</u>           |              |              | -                     |              |               | <input type="checkbox"/> | <u>FOLDED ON 10</u> |
|                  |                |          | <u>04:19</u> | <u>BO</u>        |            |                    | <u>°</u>          | <u>°</u>                  |              |              | -                     |              |               | <input type="checkbox"/> |                     |
|                  |                |          | <u>:</u>     |                  |            |                    | <u>°</u>          | <u>°</u>                  |              |              | -                     |              |               | <input type="checkbox"/> |                     |
| <u>24</u>        | <u>ROBBERS</u> | <u>6</u> | <u>04:06</u> | <u>MR</u>        | <u>BOT</u> |                    | <u>° 53.305</u>   | <u>° 05.550</u>           |              |              | -                     |              |               | <input type="checkbox"/> | <u>35°</u>          |
| <u>25</u>        | <u>ROBBERS</u> | <u>6</u> | <u>04:32</u> | <u>BE</u>        | <u>NET</u> |                    | <u>° 53.352</u>   | <u>° 05.498</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |
|                  |                | <u>6</u> | <u>04:35</u> | <u>BO</u>        |            |                    | <u>° 53.392</u>   | <u>° 05.531</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |
|                  |                | <u>6</u> | <u>04:40</u> | <u>EN</u>        |            |                    | <u>° 53.307</u>   | <u>° 05.437</u>           |              |              | -                     |              |               | <input type="checkbox"/> | <u>100 ft 100 m</u> |
| <u>426</u>       | <u>SWALE</u>   | <u>6</u> | <u>05:55</u> | <u>BE</u>        | <u>NET</u> |                    | <u>° 54.649</u>   | <u>° 12.439</u>           | <u>100m</u>  |              | -                     |              |               | <input type="checkbox"/> | <u>45° W</u>        |
|                  |                | <u>6</u> | <u>05:57</u> | <u>BO</u>        |            |                    | <u>° 54.620</u>   | <u>° 12.447</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |
|                  |                | <u>6</u> | <u>06:00</u> | <u>EN</u>        |            |                    | <u>° 54.565</u>   | <u>° 12.402</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |
| <u>427</u>       | <u>SWALE</u>   | <u>6</u> | <u>06:04</u> | <u>MR</u>        | <u>BOT</u> |                    | <u>° 54.552</u>   | <u>° 12.405</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |
| <u>628</u>       | <u>SWALE</u>   | <u>6</u> | <u>6:11</u>  | <u>BE</u>        | <u>CTD</u> |                    | <u>° 54.713</u>   | <u>° 12.435</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |
|                  |                |          | <u>6:10</u>  | <u>BO</u>        |            |                    | <u>° 54.712</u>   | <u>° 12.349</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |
|                  |                |          | <u>6:19</u>  | <u>EN</u>        |            |                    | <u>° 54.810</u>   | <u>° 12.282</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |
| <u>429</u>       | <u>COASTER</u> |          | <u>7:10</u>  | <u>MR</u>        | <u>BOT</u> |                    | <u>° 52.150</u>   | <u>° 15.919</u>           |              |              | -                     |              |               | <input type="checkbox"/> |                     |

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NET = Plankton Net Haul  
DRF = Drifter

## Bottle Firing Method:

US = Up / Stop (default)  
UN = Up / No stop  
DN = Down / No stop

## Time Code:

BE = Beginning Time of Cast  
BO = Bottom Time of Cast  
EN = End Time of Cast

DE = Deployment Time  
MR = Messenger Release Time  
RE = Recover Mooring Time

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Version: 14 February 2013

Notes:

*This page is for any notes or observations*

IOS crew = Akash Sastri

## Ocean Sciences Division, Institute of Ocean Sciences

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## DAILY SCIENCE LOG

| Month        |              |     |            | Year      |            |               | Vessel    |            | Cruise ID    |              |                       |              |               |                          |                          |                                     |  |  |
|--------------|--------------|-----|------------|-----------|------------|---------------|-----------|------------|--------------|--------------|-----------------------|--------------|---------------|--------------------------|--------------------------|-------------------------------------|--|--|
| Event Number | Station Name | Day | Time (UTC) | Time Code | Event Type | Firing Method | Latitude  | Longitude  | Bottom Depth | Max Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned          | Comments                 |                                     |  |  |
| 7/30         | COASTAL      | 6   | 7:10       | BE        | NET        |               | 2.134     | 15.957     | 85m          |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> | 85m wire out                        |  |  |
|              |              |     | 7:12       | BO        |            |               | 52.122    | 15.967     |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> | 45m angle                           |  |  |
|              |              |     | 7:15       | EN        |            |               | 52.571    | 15.908     |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> |                                     |  |  |
| 7/31         | MARBURY      | 6   | 8:00       | BE        | NET        |               | 50.733    | 9.605      | 108          |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> | 105m wire out                       |  |  |
|              |              |     | 8:21       | BO        | NET        |               | 50.757    | 9.461      |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> |                                     |  |  |
|              |              |     | 8:07       | EN        |            |               | 11.7      | ?          |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> |                                     |  |  |
| 7/32         | SARITA       | 2   | 21:20      | BE        | CTD/BOT    | MSG           | 48°53.872 | 125°03.043 |              |              | 1-6                   | 2            | JS et al      | <input type="checkbox"/> | <input type="checkbox"/> | Sampled surf bot → 13min before CTD |  |  |
|              |              |     | 21:23      | BO        |            |               | 53.420    | 03.034     |              | 190          | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> | Messenger released for deep NISIN   |  |  |
|              |              |     | 21:30      | EN        |            |               | 53.817    | 03.016     |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> |                                     |  |  |
| 7/33         | ROBBERS      | 2   | 22:05      | BE        | BOT        | MSG           | 44°53.280 | 125°05.508 | 152          |              | 7-8                   |              |               | <input type="checkbox"/> | <input type="checkbox"/> | Surf NISIN                          |  |  |
|              |              |     | :          | BO        |            |               | .         | .          |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> |                                     |  |  |
|              |              |     | :          | EN        |            |               | .         | .          |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> |                                     |  |  |
| 34           | ROBBERS      | 2   | 22:06      | BE        | NET        |               | 48°53.268 | 125°05.533 | 152          |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> | 150 wire out                        |  |  |
|              |              |     | 22:11      | BO        |            |               | 53.236    | 05.628     |              | 150          | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> | Hit bottom                          |  |  |
|              |              |     | 22:17      | EN        |            |               | 53.197    | 05.642     |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> |                                     |  |  |
| 4/35         | SWALE        | 2   | 23:08      | BE        | BOT        | MSG           | 44°54.740 | 125°12.604 |              |              | 9-10                  |              | JS et al      | <input type="checkbox"/> | <input type="checkbox"/> | 1x CHL 1x SUGO!<br>12 NUT           |  |  |
|              |              |     | :          | BO        |            |               | .         | .          |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> |                                     |  |  |
|              |              |     | :          | EN        |            |               | .         | .          |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> |                                     |  |  |
|              |              |     | :          |           |            |               | .         | .          |              |              | -                     |              |               | <input type="checkbox"/> | <input type="checkbox"/> |                                     |  |  |

## Event Type:

BOT = Bottle cast (no CTD)  
CTD = Standalone CTD  
ROS = CTD in Rosette

LOOP = Sea Water Loop  
MOR = Mooring  
NET = Plankton Net Haul  
DRF = Drifter

## Bottle Firing Method:

US = Up / Stop (default)  
UN = Up / No stop  
DN = Down / No stop

## Notes:

## Time Code:

BE = Beginning Time of Cast  
BO = Bottom Time of Cast  
EN = End Time of Cast

DE = Deployment Time  
MR = Messenger Release Time  
RE = Recover Mooring Time

CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

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This page is for any notes or observations

→ Surface skin taken @ 21:15 48°53.965 125°03.043

10S crew = Julian Smith

## DAILY SCIENCE LOG

## Ocean Sciences Division, Institute of Ocean Sciences

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| Month 6      |              |     | Year 2022  |           |             | Vessel ALTA   |                        |             | Cruise ID 2022-030D |              |                       |              |               |                                                   |                       |
|--------------|--------------|-----|------------|-----------|-------------|---------------|------------------------|-------------|---------------------|--------------|-----------------------|--------------|---------------|---------------------------------------------------|-----------------------|
| Event Number | Station Name | Day | Time (UTC) | Time Code | Event Type  | Firing Method | Positional Information |             | Bottom Depth        | Max Pressure | Sample Serial Numbers | # of Bottles | Watch Keepers | Trns/FI Cleaned                                   | Comments              |
| 836          | SWALE        | 2   | 23:09      | BE        | NET         |               | 48° 54.813             | 125° 12.656 | 100                 |              | -                     |              | JS et al      | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | 23:13      | BO        |             |               | ° 54.855               | ° 12.733    |                     | 100          | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> | Wire 2020             |
|              |              |     | 23:18      | EN        |             |               | ° 54.884               | ° 12.789    |                     |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
| 837          | SWALE        | 2   | 23:31      | BE        | CTD/BOT MSG |               | 48° 54.802             | 125° 12.626 | 100                 |              | -                     |              | JS et al      | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | 23:33      | BO        |             |               | ° 54.816               | ° 12.645    |                     | 95           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | 23:37      | EN        |             |               | ° 54.833               | ° 12.673    |                     |              | 12-15                 |              |               | <input type="checkbox"/> <input type="checkbox"/> | 2x SAL 1x WVT         |
| 838          | COASTER      | 3   | 00:13      | BE        | BOT         | MSG           | 48° 52.223             | 125° 16.071 | 85                  |              | 16-17                 |              | JS et al      | <input type="checkbox"/> <input type="checkbox"/> | 1x HL 1x gol          |
| 839          | COASTER      | 3   | 00:15      | BE        | NET         |               | 48° 52.188             | 125° 16.136 | 85                  |              | -                     |              | JS et al      | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | 00:18      | BO        |             |               | ° 52.176               | ° 16.186    |                     | 85           | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              | COASTER      |     | 00:22      | EN        |             |               | ° 52.190               | ° 16.250    |                     |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
| 840          | MACKENZIE    |     | 01:18      | BE        | NET/BOT MSG |               | 48° 50.740             | 125° 09.507 | 108                 |              | 18-19                 |              | JS et al      | <input type="checkbox"/> <input type="checkbox"/> | surf BOT 1x HL 1x gol |
|              |              |     | 01:22      | BO        |             |               | ° 50.788               | ° 09.417    |                     | 108          | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> | Wire 2025             |
| 841          | MACKENZIE    |     | 01:25      | EN        |             |               | ° 50.818               | ° 09.388    |                     |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | :          | BO        |             |               | ° .                    | ° .         |                     |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | :          | EN        |             |               | ° .                    | ° .         |                     |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | :          |           |             |               | ° .                    | ° .         |                     |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | :          |           |             |               | ° .                    | ° .         |                     |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | :          |           |             |               | ° .                    | ° .         |                     |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | :          |           |             |               | ° .                    | ° .         |                     |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |
|              |              |     | :          |           |             |               | ° .                    | ° .         |                     |              | -                     |              |               | <input type="checkbox"/> <input type="checkbox"/> |                       |

Event Type:

LOOP = Sea Water Loop

Bottle Firing Method:

Time Code:

## Event Type:

BOT = Bottle cast (no CTD)  
 CTD = Standalone CTD  
 ROS = CTD in Rosette  
 SET = Fish Set

## LOOP = Sea Water Loop

MOR = Mooring  
 NET = Plankton Net Haul  
 DRF = Drifter

## Bottle Firing Method:

US = Up / Stop (default)  
 UN = Up / No stop  
 DN = Down / No stop

## Notes:

## Time Code:

BE = Beginning Time of Cast  
 BO = Bottom Time of Cast  
 EN = End Time of Cast

## CTD Transmissometer and Fluorometer to be cleaned before each cast -- do not use Ammonia products

DE = Deployment Time  
 MR = Messenger Release Time  
 RE = Recover Mooring Time

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January 2013