RRS DISCOVERY

CRUISE 266

SEPTEMBER – OCTOBER 2002

PORCUPINE SEABIGHT

PORCUPINE ABYSSAL PLAIN

FISH AND INVERTEBRATE BIOLOGY

PRINCIPAL SCIENTIST

MONTY PRIDE

[NO CRUISE REPORT PRODUCED –
STATION LIST ONLY]

# Station List - *RRS Discovery* Cruise No. 266 September-October 2002

| Station No. | Date | Time GMT | Latitude | Longitude | Gear | Depth (m) | Remarks |
|---|---|---|---|---|---|---|---|
| 15043 #1 | 29 Sept | 1739 1845 | 52° 25.0'N | 11° 47.7'W | CTD | 1050 | Tests acoustic releases and collection of bottom water for maintenance of deep sea corals. Two releases failed and the bottles would not fire so the exercise was repeated. |
| 15043 #2 | 29 Sept | 1900 2000 | 52° 25.0'N | 11° 47.7'W | CTD | 1050 | Successful cast with water and releases fired |
| 15044 | 29 Sept | 2135 2236 | 51° 25.8' | 11° 46.4'W | Box Core | 870 | Good box core with *Madrepora* and *Lophelia* spp. |
| 15045 | 30 Sept | 0132 0901 | 51° 09.9'N | 11° 40.8'W | ISIT | 1022 | Baited lander deployed on the usual coral site for detection of bioluminescence. Good results with the camera viewing a larger area than normal. |
| 15046 | 30 Sept | 0139 1813 | 51° 12.2'N | 11° 41.1'W | SPRINT | 1033 | SPRINT targeting the eels that are usually abundant in this area. Results were disappointing with few eels attracted to the rig. |
| 15047 | 30 Sept | 0500 0635 | 51° 25.9'N | 11° 46.9'W | Box Core | 800 | Another nice result with both species of coral, no further collections were required during this cruise. |
| 15048 | 30 Sept | 1152 1615 | 51° 15.3'N 51° 04.3'N | 11° 54.8'W 11° 55.1'W | OTSB | 1200 | Good catch with over 1000 *Synaphobranchus kaupi,* |
| 15049 | 30 Sept | 2003 2100 | 51° 09.4'N | 11° 42.8'W | CTD | 500 | Test of ANIMATE mooring sensors |
| 15050 | 30 Sept 1 Oct | 2203 0705 | 51° 10.2'N | 11° 40.6'W | ISIT | 1017 | ISIT deployed with no bait as a control experiment. Little luminescence was detected. |
| 15051 | 1 Oct | 0100 0830 | 51°26.9'N 51° 16.2'N | 11° 54.3'W 11° 52.6'W | OTSB | 1000 | Trawl along almost the same track as the previous one but shallower start to capture eels 12h after the previous trawl. Fewer eels but lots of sea urchins. |
| 15052 | 1 Oct 2 Oct | 1630 0000 | 50° 04.8'N 49° 43.2'N | 12°45.7'W 12° 45.1'W | OTSB | 2500 2500 | Good catch including small *Coryphaenoides armatus* and a diversity of species. |

| Station No. | Date | Time GMT | Latitude | Longitude | Gear | Depth (m) | Remarks |
|---|---|---|---|---|---|---|---|
| Test | 2 Oct | 0420<br>0640 | 49°53.0'N | 13° 31.0'W | CTD | 3190 | CTD at the mouth of the Porcupine Seabight to collect deep water for priming of sediment traps |
| *14314* | 2 Oct | 0157<br>0949 | 49°58.5'N | 13° 31.3'W | DOBO | 2755 | Retrieval of the deep ocean benthic observatory deployed on D260 on 17 March 2002. |
| 15054<br>#1 | 3 Oct | 0055<br>0446 | 49°00.0'N | 16°06.9'W | CTD<br>Wire test | 4700 | 5 acoustic releases lowered to 100m above the bottom for test. Damage to the winch meant the trawl wire was used instead of the conducting cable |
| 15054<br>#2 | 3 Oct | 0532<br>0907 | 49° 00.0'N | 16°07.2'W | CTD<br>Wire test | 4700 | A second set of 5 acoustic releases were tested. |
| 15054<br>#3 | 3 Oct<br>7 Oct | 1046<br>1642 | 48°59.9'N | 16°06.9'W | SPRINT | 4813 | A first deployment on the abyssal plain for this instrument. Many *C. armatus* were attracted but only a few fast starts were recorded. Dah buoy broke free during recovery |
| 15054<br>#4 | 3 Oct<br>7 Oct | 1142<br>1740 | 49°01.9'N | 16° 09.0'W | ISIT | 4810 | The ISIT in bungee mode, a good profile to the bottom was obtained. |
| 15054<br>#5 | 3 Oct<br>5 Oct | 1302<br>1900 | 48°59.7'N | 16° 12.2'W | FRESP | 4809 | There were no fish in the trap on retrieval and owing to software problems the video was short and data confused. |
| 15053 | 3 Oct | 1445 | 48° 59.7' | 16° 26.8W | Sediment Trap | 3810 | A sediment trap mooring was recovered for Dr. Richard Lampitt of SOC |
| 15054<br>#6 | 3 Oct<br>4 Oct | 1905<br>824 | 48°57.4'N | 16°17.7'W | OTSB | 4810 | Trawl on the abyssal plain captured 7 large *Corypheanoides armatus* and many *Amperima.* 9.07km DR |
| 15054<br>#7 | 4 Oct | 1933 | 49 ° 00.1'N | 16° 28.8W | Sediment Trap | 4809 | Sediment Trap mooring deployed for Dr Richard Lampitt of SOC. Designated PAP3 of the EU ANIMATE project. 3 traps on a 3000m mooring. Fixative leaked from tubes during deployment. |
| 15054<br>#8 | 4 Oct<br>5 Oct | 2108<br>1103 | 48° 53.8'N<br>48° 53.6'N | 16° 10.8'W<br>17° 09.3'N | OTSB | 4808 | The net was damaged, and the catch was small. 8.97km DR |

| Station No. | Date | Time GMT | Latitude | Longitude | Gear | Depth (m) | Remarks |
|---|---|---|---|---|---|---|---|
| 15054 #9 | 5 Oct 6 Oct | 2232 0207 | 48° 50.9'N | 16° 29.9'W | Multi-corer | 4810 | Core at central PAP site 1 mile north to avoid new cable. 10 out of 11 good cores collected. |
| 15054 #10 | 6 Oct | 0250 0630 | 48° 51.0'N | 16° 30.0'W | Box Core | 4810 | Successful core slightly disturbed. |
| 15054 #11 | 6 Oct | 0700 0859 | 48°51.1'N | 16° 30.0'W | CTD Wire test | 4700 | A test of releases and camera housing on the CTD frame which was lowered on the core wire. |
| 15054 #12 | 6 Oct | 1509 1932 | 48° 59.4'N on bottom | 16° 28.1'W | ANIMATE PAP 2 | 4810 | An instrumentation mooring for the ANIMATE porhject featuring ARGOS real time telemetry to shore. |
| 15054 #13 | 7 Oct 10 Oct | 1322 1606 | 48° 59.9'N | 61° 16.1'W | FRESP | 4809 | FRESP deployed late after problems with software. On recovery it was found to malfunctioned, the cause was traced to a defective Flash card in the programmer. |
| 15054 #14 | 7 Oct 8 Oct | 2134 0114 | 48° 51.0'N | 16° 29.9'W | Multicore | 4807 | A good set of cores. |
| 15054 #15 | 8 Oct | 0150 0522 | 48° 51.0'N | 16° 30.6'W | Multicore | 4807 | A good set of cores. |
| 15054 #16 | 8 Oct | 0600 0717 | 48° 51.3'N | 16° 31.6'W | CTD | 500m | Water samples for calibration of ANIMATE sensors. One bottle failed to trigger. |
| 15054 #17 | 8 Oct | 0800 0812 | 48° 51.1'N | 16° 30.1'W | CTD | 100m | A repeat cast to obtain the missing sample. |
| 15054 #18 | 8 Oct | 0836 1221 | 48°52.0'N | 16° 32.1'W | Box Core | 4807 | A successful cast but not a perfect sample. Which was slightly disturbed. |
| 15054 #19 | 8 Oct 11 Oct | 1440 1735 | 48° 46.6'N | 16° 29.1'W | ISIT | 4808 | A second ISIT in bungee mode at the PAP station. The splat screen was bent. |
| 15054 #20 | 8 Oct 11 Oct | 1531 1826 | 48'47.3'N | 16° 29.8'W | SPRINT | 4808 | A second SPRINT at the PAP station. Excellent quality video but the fish are relatively unresponsive. |

| Station No. | Date | Time GMT | Latitude | Longitude | Gear | Depth (m) | Remarks |
|---|---|---|---|---|---|---|---|
| 15054 #21 | 8 Oct | 2250 2340 | 48° 59.0'N on bottom | 16°25.4'W | ANIMATE PAP1 | 4810 | The third of three ANIMATE moorings to be deployed with nutrient analysers but no satellite telemetry. |
| 15054 #22 | 9 Oct 10 Oct | 2007 0859 | 48° 43.1'N 48° 58.4'N | 16°33.8'W 17°02.0'W | OTSB | 4808 | A small catch with just a few fish. 7.21km DR |
| 15054 #23 | 10 Oct 11 Oct | 2007 1900 | 48° 45.8'N | 16°30.9'W | DOBO | 4809 | DOBO deployed for a short term test of the bait release mechanism. On recovery it was found the camera had failed. 7200 |
| 15054 #24 | 10 Oct 11 Oct | 2139 1104 | 48° 40.0'N 49° 16.2'N | 16°42.5'W 17°08.3'W | OTSB | 4809-4814 | Another small catch but with a few small macrourids and one eel. 7.02km DR |
| 15054 #25 | 11 Oct 12 Oct | 2335 1104 | 48° 55.0'N 48° 55.2'N | 16°05.7'W 16°39.2'W | OTSB | 4809-4812 | Small catch yet again with no *C. armatus*. 7.21 km DR |
| 15054 #26 | 12 Oct | 1432 | 49° 00.2'N | 16°26.8'W | Bathysnap | 4811 | Bathysnap deployed near the ANIMATE moorings. To be recovered in 2003 |
| 15055 #1 | 12 Oct 13 Oct | 2136 1628 | 49° 27.9'N | 15°34.2'W | ISIT | 4727 | ISIT deployed in bungee mode half way between PAP and the seabight. |
| 15055 #2 | 12 Oct 13 Oct | 2136 1142 | 49° 25.8'N 49° 29.3'N | 15°25.5'W 16°07.6'W | OTSB | 4749 4780 | Using original Marinovitvh doors a good catch was obtained, is this significant? 8.14 Km DR |
| 15056 | 14 Oct 16 Oct | 0012 0839 | 49° 46.0'N | 13°57.2'W | FRESP | 4002 | Deployed with software problems apparently solved but the syringe system stalled & the trap did not close. |
| 15057 | 14 Oct | 0200 1621 | 49° 46.9'N | 13°40.3'W | SPRINT | 3034 | Sprint deployed for small *C.armartus*. Very good quality video obtained. |
| 15058 | 14 Oct | 0528 | 49° 40.6'N | 13°01.6'W | OTSB | 1992 2040 | Trawl on the Goban Spur. Large catch of eels *S. kaupi*, and small macrourids. |
| 15059 | 14 Oct 15 Oct | 1429 1230 | 49° 46.7'N | 13°37.7'W | ISIT | 2910 | ISIT bungee in the mouth of the seabight. |
| 15060 | 15 Oct | 0825 1215 | 49°47.5'N | 13°38.4'W | DOBO CTD | 3047 | The DOBO camera system which had been rebuilt on board ship was lowered to the sea floor for tests. |

| Station No. | Date | Time GMT | Latitude | Longitude | Gear | Depth (m) | Remarks |
|---|---|---|---|---|---|---|---|
| 15061 | 15 Oct<br>18 Oct | 1457<br>1800 | 49° 44.1'N | 13°30.0'W | SPRINT | 2451 | Easy deployment in calm weather, had to be left because of diversion to Cork. Good results |
| 15062 | 15 Oct<br>16 Oct | 1900<br>0254 | 49° 48.9'N | 13°42.9'W | OTSB | 3071<br>3181 | A reasonable catch of 55 fish including 3 specimens of a putative new holothurian species. |
| 15063 | 18 Oct | 0440<br>0828 | 49° 40.0'N<br>49° 44.6'N | 11°30.7'W<br>11°43.6'N | OTSB | 785<br>920 | The Aberdeen Marinovitch net was destroyed by corals and a couple of large rocks. A good varied catch or fish and invertebrates, including a large shark |
| 15064 | 18 Oct<br>19 Oct | 1121<br>0550 | 49° 48.3'N | 12°04.9'W | FRESP | 1480 | Captured 3 eels, *Synaphobranchus kaupi*; a successful experiment. Recovered at night in deteriorating weather |
| 15065 | 18 Oct | 2134 | 49° 23.0'N | 13°35.7'W | DOBO | 3970 | Deployed to be recovered in 2003. Equipped with odour bait release. No tests were possible owing to onset of adverse weather. |
| 15066 | 19 Oct | 0806<br>1146 | 49° 50.4'N<br>49° 44.8'N | 12°05.1'W<br>11° 52.2'N | OTSB | 1360<br>1240 | A new net hauled full of glass sponges, but over 200 fish and other fauna including a large spider crab. |

NB: Trawl depths are maximum and minimum depths for each tow. Deployment and recovery positions are given.
For landers, times are flag sinking times and surface times. All depths are uncorrected echosounder depths ($1500 m.s^{-1}$)