Okeanos Explorer ROV Dive Summary

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Site Name** | | McCall Seamount | | | | F:\OKEANOS EXPLORER\2015 CAPSTONE Planning\Web Content\Mission Intro & Plan\MonumentsOverview2(1).jpg | |
| **ROV Lead/Expedition Coordinator** | | Brian Bingham  Kelley Elliott | | | |  | |
| **Science Team Leads** | | Frank Parrish (Biology)  Christopher Kelley (Biology) | | | |  | |
| **General Area Descriptor** | | Main Hawaiian Islands | | | |  | |
| **ROV Dive Name** | | Cruise Season | | Leg | | | Dive Number |
|  | | EX1504 | | 3 | | | DIVE04 |
| **Equipment Deployed** | | ROV: | | Deep Discoverer | | | |
|  | | Camera Platform: | | Seirios | | | |
| **ROV Measurements** | | CTD | | Depth | | | Altitude |
|  | | Scanning Sonar | | USBL Position | | | Heading |
|  | | Pitch | | Roll | | | HD Camera 1 |
|  | | HD Camera 2 | | Low Res Cam 1 | | | Low Res Cam 2 |
|  | | Low Res Cam 3 | | Low Res Cam 4 | | | Low Res Cam 2 |
| **Equipment Malfunctions** | | Onshore participants reported frequent transmission problems including periodic loss and freezing of video as well as periodic loss of the chat room and teleconference interface. | | | | | |
| **ROV Dive Summary**  **(From processed ROV data)** | | Dive Summary: EX1504L3\_DIVE04  ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^  In Water: 2015-08-31T18:42:14.156000  N/A ; N/A  Out Water: 2015-09-01T02:27:19.453000  18°, 58.959' N ; 157°, 06.310' W  Off Bottom: 2015-09-01T00:58:41.500000  18°, 58.616' N ; 157°, 06.651' W  On Bottom: 2015-08-31T20:03:54.390000  18°, 58.983' N ; 157°, 06.705' W  Dive duration: 7:45:5  Bottom Time: 4:54:47  Max. depth: 2715.0 m | | | | | |
| **Special Notes** | |  | | | | | |
| **Scientists Involved**  ***(please provide name / location / affiliation / email)*** | | Frank Parrish, EX, NOAA, Frank.Parrish@noaa.gov  Chris Kelley, EX, UH, ckelley@hawaii.edu  Amy Baco-Taylor, FL, FSU, abacotaylor@fsu.edu  Asako Matsumoto, Japan, CIT, amatsu@gorgonian.jp  Chris Mah, DC, SI, mahch@si.edu  Nicole Morgan, FL, FSU, nbmorgan11@gmail.com  Scott France, LA, ULL, france@louisiana.edu  Tina Molodtsova, Portugal, PPSIO, tina@ocean.ru  Rachel Bassett, SC, DSCRTP, rachel.bassett@noaa.gov  Meagan Putts, UH ECC, HPU, Mputts@HPU.edu  Brendan Roark, TX, TAMU, broark@geos.tamu.edu  Michael Garcia, UH ECC, UH, mogarcia@hawaii.edu  Bruce Mundy, IRC ECC, PIFSC, NOAA, bruce.mundy@noaa.gov | | | | | |
| **Purpose of the Dive**  This dive was the first ever conducted on McCall Seamount in the group of topographic features referred to as the Geologist Seamounts. The dive surveyed the crest of a sharp ridge that extended north of the seamount at a depth of 2700 m. The survey employed the standard methodology of the D2 with the objectives of 1) making observations and collecting video and 2) collecting rock and biological samples. | | | | | | | |
| **Description of the Dive:** | | | | | | | |
| All of the dive objectives were completed. Nearly the full planned distance of the dive track was achieved. The ridge crest was covered with loose talus and was almost completely barren of animals, which was unexpected. This type of substrate continued throughout the dive except for a couple of small ledges consisting primarily of pillow lavas. Two basalt rocks were collected specifically for geology and one additional rock was collected as part of a coral sample. In total 4 coral samples (a stoloniferous hydrozoan, Stauropathes sp., a primnoid, and a Schizopathes sp?. were collected.  **Animals observed during the dive are listed below.**  **Cnidarians:**  Chrysogorgia pinnata  Primnoid  Isididae unbranched  Keratoisis sp  Hydrozoan stoloniferous  Stauropathes sp.  Narella dichotoma  Keratoisis sp.  Schizopathes sp?  Actinostolidae  Bathypathes sp  **Sponges**  Hexactinellida various unidentified  Farrea nr occa erecta?  Semperella sp.  Caulophacus (oxydiscus) sp  Caulophacus (Caulodiscus) sp  Rossellidae?  Corbitellinae?  **Echinoderms**  Holothuroidean  Deimatidae  Unidentified sea star  Stalked crinoid Hyacrinidae  Comatulina crinoid  Hymenaster sp  Glyptometra lateralis?  **Arthropods**  Nematocarcinus tenuirostris  Balanoid or verricid barnacles  Unidentified shrimp  **Fishes**  Ophidiidae  **Other** | | | | | | | |
| **Overall Map of ROV Dive Area** | | | | | **Close-up Map of Main Dive Site** | | |
| **L3-d2-Dive04_bty2.jpg** | | | | | F:\OKEANOS EXPLORER\2015 CAPSTONE Planning\EX1504 Leg 3 - MHI & Geologists Seamounts\ROV Dive Summaries\Dive4_divetrack_summary.JPG | | |
| Bathymetry data for the dive site. Planned dive start and end points are shown as green and red dots, respectively. | | | | | Close-up showing actual ROV dive track as executed. | | |
| **Representative Photos of the Dive** | | | | | | | |
| **EX1504L3_IMG_20150831T203058Z_D2_DIVE04_SPEC01GEO_01.jpg** | | | | | EX1504L3_IMG_20150901T005907Z_D2_DIVE04_SPEC06BIO_01.jpg | | |
| Collection of a vessiculated basalt sample from the crest of the ridge at the beginning of the dive. The expected thick Mn crusting was not observed at this site. | | | | | Collecting of a potential Schizopathes sp at the end of the dive. If the field identification is correct, this is either a new record or new species for Hawaii. | | |
| **Samples Collected** | | | | | | | |
| **Sample ID** | D2\_DIVE04\_SPEC01GEO | | | | **IMG_0430.JPG** | | |
| **Date (UTC)** | August 31, 2015 | | | |  | | |
| **Time (UTC)** | 20:27:16 | | | |  | | |
| **Depth (m)** | 2699 | | | |  | | |
| **Temperature (oF)** | 1.67 | | | |  | | |
| **Field ID(s)** | Vessiculated basalt | | | |  | | |
| **Comments** |  | | | | | | |
| **Sample ID** | D2\_DIVE04\_SPEC02BIO | | | | IMG_0412.JPG | | |
| **Date (UTC)** | August 31, 2015 | | | |  | | |
| **Time (UTC)** | 23:40:32 | | | |  | | |
| **Depth (m)** | 2646 | | | |  | | |
| **Temperature (oF)** | 1.58 | | | |  | | |
| **Field ID(s)** | Stauropathes sp. | | | |  | | |
| **Comments** |  | | | | | | |
| **Sample ID** | D2\_DIVE04\_SPEC03GEO | | | | IMG_0433.JPG | | |
| **Date (UTC)** | September 1, 2015 | | | |  | | |
| **Time (UTC)** | 0:05:04 | | | |  | | |
| **Depth (m)** | 2643 | | | |  | | |
| **Temperature (oF)** | 1.57 | | | |  | | |
| **Field ID(s)** | Mn encrusted Basalt sample | | | |  | | |
| **Comments** |  | | | | | | |
| **Sample ID** | D2\_DIVE04\_SPEC04GEO  D2\_DIVE04\_SPEC04GEO\_C01  D2\_DIVE04\_SPEC04GEO\_C02 | | | | IMG_0427.JPG | | |
| **Date (UTC)** | September 1, 2015 | | | |  | | |
| **Time (UTC)** | 0:23:16 | | | |  | | |
| **Depth (m)** | 2634 | | | |  | | |
| **Temperature (oF)** | 1.57 | | | |  | | |
| **Field ID(s)** | Mn encrusted Basalt sample  Hydrozoan  Polychaete Worm | | | |  | | |
| **Comments** |  | | | | | | |
| **Samples Collected** | | | | | | | |
| **Sample ID** | D2\_DIVE04\_SPEC05BIO | | | | **IMG_0421.JPG** | | |
| **Date (UTC)** | September 1, 2015 | | | |  | | |
| **Time (UTC)** | 0:47:21 | | | |  | | |
| **Depth (m)** | 2638 | | | |  | | |
| **Temperature (oF)** | 1.58 | | | |  | | |
| **Field ID(s)** | Primnoid  Ophiuroid | | | |  | | |
| **Comments** |  | | | | | | |
| **Sample ID** | D2\_DIVE04\_SPEC06BIO | | | | IMG_0419.JPG | | |
| **Date (UTC)** | September 1, 2015 | | | |  | | |
| **Time (UTC)** | 0:57:03 | | | |  | | |
| **Depth (m)** | 2638 | | | |  | | |
| **Temperature (oF)** | 1.58 | | | |  | | |
| **Field ID(s)** | Schizopathes sp | | | |  | | |
| **Comments** |  | | | | | | |
| **Please direct inquiries to:** | | | NOAA Office of Ocean Exploration & Research 1315 East-West Highway (SSMC3 10th Floor)  Silver Spring, MD 20910  (301) 734-1014 | | | | |