Okeanos Explorer ROV Dive Summary

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| **Site Name** | | Kona Precious Coral Bed | | | | 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** | | Chris Kelley (Biology)  Frank Parrish (Biology) | | | |  | |
| **General Area Descriptor** | | Main Hawaiian Islands | | | |  | |
| **ROV Dive Name** | | Cruise Season | | Leg | | | Dive Number |
|  | | EX1504 | | 3 | | | DIVE02 |
| **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** | | Some audio problems were reported by onshore participants. Teleconference was interrupted several times as well. | | | | | |
| **ROV Dive Summary**  **(From processed ROV data)** | | Dive Summary: EX1504L3\_DIVE02  ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^  In Water at: 2015-08-29T19:06:30.125000  19°, 48.194' N ; 156°, 07.643' W  Out Water at: 2015-08-30T02:25:52.859000  19°, 48.121' N ; 156°, 07.575' W  Off Bottom at: 2015-08-30T02:11:25.218000  19°, 48.094' N ; 156°, 07.560' W  On Bottom at: 2015-08-29T19:24:32.671000  19°, 48.299' N ; 156°, 07.547' W  Dive duration: 7:19:22  Bottom Time: 6:46:52  Max. depth: 393.7 m | | | | | |
| **Special Notes** | |  | | | | | |
| **Scientists Involved**  ***(please provide name / location / affiliation / email)*** | | Frank Parrish, EX, PIFSC/PSD, [Frank.Parrish@noaa.gov](mailto:Frank.Parrish@noaa.gov)  Chris Kelley, EX, UH, [ckelley@hawaii.edu](mailto:ckelley@hawaii.edu)  Amy Baco-Taylor, FL, FSU, [abacotaylor@fsu.edu](mailto:abacotaylor@fsu.edu)  Asako Matsumoto, Japan, CIT, [amatsu@gorgonian.jp](mailto:amatsu@gorgonian.jp)  Chris Mah, DC, USMNH, [mahch@si.edu](mailto:mahch@si.edu)  Michael Parke, HI, PIFSC, [Michael.Parke@noaa.gov](mailto:Michael.Parke@noaa.gov)  Nicole Morgan, FL, FSU, [nbmorgan11@gmail.com](mailto:nbmorgan11@gmail.com)  Scott France, LA, ULL, [france@louisiana.edu](mailto:france@louisiana.edu)  Steve Auscavitch, PA, Temple, [steven.auscavitch@temple.edu](mailto:steven.auscavitch@temple.edu)  Tina Molodtsova, Portugal, PPSIO, [tina@ocean.ru](mailto:tina@ocean.ru)  Rachel Bassett, SC, CCEHBR, [Rachel.bassett@noaa.gov](mailto:Rachel.bassett@noaa.gov)  Daniel Wagner, HI, PMNM, [daniel.wagner@noaa.gov](mailto:daniel.wagner@noaa.gov) | | | | | |
| **Purpose of the Dive**  This dive targeted the middle of the Keahole precious coral bed off the Kona Coast of the Big Island of Hawaii. The objectives were to (1) recover an acoustic current meter and three flow meters placed throughout the bed, (2) to make observations on nearby previously marked colonies, and (3) to spend the remaining time exploring the surrounding environment. Most of the Keahole bed is carbonate ledge habitat and this dive was intended to spend much of the dive time working the top edge of the drop off. | | | | | | | |
| **Description of the Dive:** | | | | | | | |
| All of the dive objectives were completed. The acoustic Doppler current meter and three flow meters were all found and recovered. Colonies of gold coral near these instruments or marked by flower pots at other locations were located and close-up imagery was acquired for comparison to photographs of the colonies taken over 3 years ago. In addition, time remained during the dive to collect two biological specimens, a black coral and a bamboo coral, as well as fossil coral branches.  **Animals observed during the dive are listed below.**  **Cnidarians:**  Acanthogorgia sp.  Corallium sp.  Hemicorallium cf. lauense  Isidella trichotoma?  Keratoisis sp. (collected)  Lepidisis olapa  Acanella dispar?  Paracis sp?  Plexauridae sp.  Callogorgia gilberti  Kulamanamana haumeae  Leiopathes annosa  Trissopathes pseudotristicha?  Chrysopathes sp (collected)  Calibelemnon symmetricum  Pennatula pearceyi  Hydrodendron gorgonoide  Stylobates aenaeus  Single polyp scleractinian  **Sponges**  Regadrella sp  **Echinoderms**  Stereocidaris hawaiiensis  Sphaeriocidaris ammophilis  **Arthropods**  Paromola sp  Squat lobster  Gooseneck barnacles  Plesionika sp  Sympagurus dofleini  **Fishes**  Chrionema chryseres  Chlorophthalmus proridens  Hollardia goslinei  Ophichthid eel  Lophioides miacanthus  Epigonus glossodontus  Hoplostethus crassispinus  Scorpaenid  Satyrichthys engyceros  Sphenanthias sp  **Other**  Lyrocteis sp (benthic ctenophore) | | | | | | | |
| **Overall Map of ROV Dive Area** | | | | | **Close-up Map of Main Dive Site** | | |
| **L3-d2-Dive02_bty.jpg** | | | | |  | | |
| Bathymetry data for the dive site. Planned dive start and end points are shown as green and red dots, respectively. | | | | | Hypack screen grab showing waypoints dropped during the actual ROV dive. | | |
| **Representative Photos of the Dive** | | | | | | | |
| **EX1504L3_IMG_20150829T201956Z_ROVHD_FLOW_METER_COLLECT.jpg** | | | | | EX1504L3_IMG_20150829T212349Z_ROVHD_COR_IMAGING_02.jpg | | |
| Recovery of the Andara ADCP that was placed on the site in 2012. | | | | | Gold coral (Kulamanamana haumeae (yellow) in the early stages of colonizing and overgrowing a bamboo coral. | | |
| **Samples Collected** | | | | | | | |
| **Sample ID** | EX1504L3\_D2\_DIVE02\_SPEC01BIO | | | | IMG_0398.JPG | | |
| **Date (UTC)** | August 30, 2015 | | | |  | | |
| **Time (UTC)** | 0:50:43 | | | |  | | |
| **Depth (m)** | 389 | | | |  | | |
| **Temperature (oF)** | 8.11 | | | |  | | |
| **Field ID(s)** | Chrysopathes sp | | | |  | | |
| **Comments** |  | | | | | | |
| **Sample ID** | EX1504L3\_D2\_Dive02\_SPEC02BIO | | | | IMG_0400.JPG | | |
| **Date (UTC)** | August 30, 2015 | | | |  | | |
| **Time (UTC)** | 1:43:45 | | | |  | | |
| **Depth (m)** | 393 | | | |  | | |
| **Temperature (oF)** | 8.11 | | | |  | | |
| **Field ID(s)** | Keratoisis sp | | | |  | | |
| **Comments** |  | | | | | | |
| **Sample ID** | EX1504L3\_D2\_Dive02\_SPEC03GEO | | | | *EX1504L3_20150830T015656Z_D2_DIVE02_SPEC03GEO_L01.JPG* | | |
| **Date (UTC)** | August 30, 2015 | | | |  | | |
| **Time (UTC)** | 1:56:56 | | | |  | | |
| **Depth (m)** | 389 | | | |  | | |
| **Temperature (oF)** | 8.18 | | | |  | | |
| **Field ID(s)** | Fossil Coral | | | |  | | |
| **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 | | | | |