



# Okeanos Explorer ROV Dive Summary

Dive Information	
Dive Map	
<b>Site Name</b>	Unnamed Seamount "Teutana Seamount"
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<b>ROV Lead(s)</b>	Karl McLetchie
<b>Science Team Lead(s)</b>	Amanda Demopoulos and Steven Auscavitch
<b>General Area Descriptor</b>	Phoenix Islands Protected Area
<b>ROV Dive Name</b>	



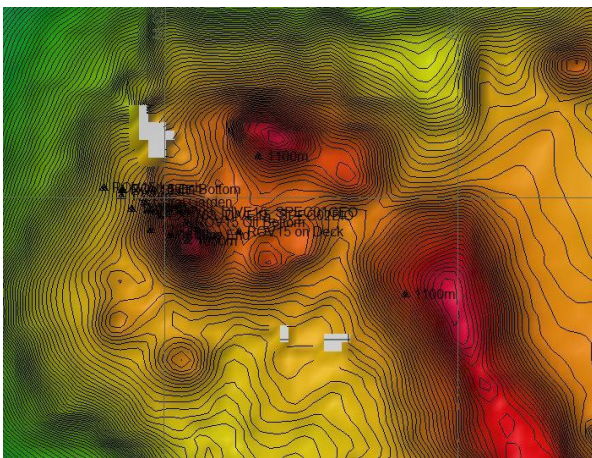
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<b>Purpose of the Dive</b>	<p>The general goal of this dive is to acquire baseline information on deep sea habitats, seafloor geology, and biological communities on features around the tentatively-named “Teutana Seamount” (“a little” in Kiribati), in the Phoenix Islands Protected Area (PIPA). Deep-sea environments on seamounts in PIPA are virtually unexplored leading to poor knowledge of any biological resources protected by the reserve. This dive will provide some perspective on biological resources (e.g. fishes, biogenic habitat) as well as geological resources (crust precipitates) of the seamount. Understanding deep-sea coral and sponge distribution as well as bathyal fish communities is important to inform management in the Phoenix Islands Protected Area. The age of this seamount has not been determined from rock dating.</p>		
<b>Description of the Dive</b>	<p>EX1703 dive #15 was on an unnamed seamount and our 6<sup>th</sup> dive within the Phoenix Islands Protected Area. The dive track started at 1323m on a sedimented slope with scattered boulders and progressed along a steep pinnacle to a depth of 982 m. Pilots noted that the current was moderate, flowing from north to south. The seafloor transitioned from large boulders and blocks, interspersed with sediment to large boulders and continuous rock pavements with thin sediment drape. Along the steep slope, the rock had a crustal appearance, and seemed to have failed in several areas, revealing the smooth, underlying pavement.</p> <p>Fishes encountered on the dive included cusk eels (Ophidiidae: cf. <i>Bassozetus</i>, <i>Spectrunculus</i>), rattails (Bathygadidae: <i>Gadomus</i> sp., Macrouridae: cf. <i>Nezumia</i>, <i>Coryphaenoides</i>), deep-sea spiny eels (Halosauridae: <i>Aldrovandia</i> spp.), tripod fish (Ipnopidae: <i>Bathypterois atricolor</i>), velvet whalefish (Barbourisiidae: <i>Barbourisia rufa</i>), brotula (Bythitidae: <i>Diplacanthopoma</i>), oreo fish (Oreosomatidae: <i>Neocyttus</i> cf. <i>acanthorhynchus</i>), arrow-tooth eel (Ilyophinae: <i>Ilyophis</i> sp.), and cutthroat eels (Synaphobranchidae: <i>Synaphobranchus</i> spp.).</p> <p>Yellow plexaurids (cf. <i>Paramuricea</i>-collected), bottlebrush chrysogorgiids (cf. <i>Chrysogorgia</i>), and large primnoids (cf. <i>Paracalyptrophora</i>, <i>Calyptrophora</i>) were observed on large rocky</p>		

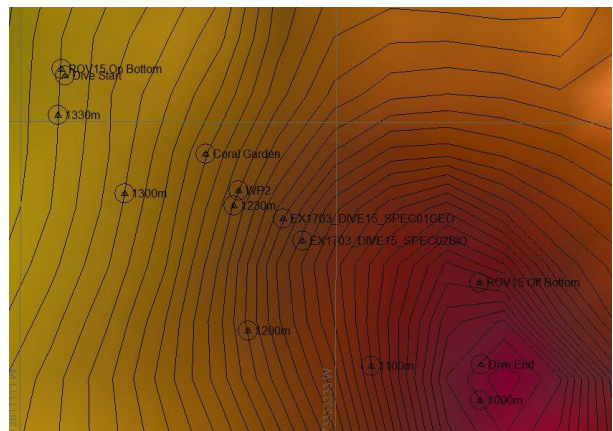
slabs. Other corals observed along the steep slope included sea pens (*Umbellula*), colonial scleractinians (cf. *Enallopsammia* sp.), cup corals, bamboo whips, precious corals (cf. *Hemicorallium*, *Pleurocorallium* cf. *porcellanum*), other primnoids (*Narella*), plexaurids (*Paracis* sp.), chrysogorgiids (*Iridogorgia*), *Victorgorgia*, and *Bathypathes*.

Several *Walteria* glass sponges were observed during the first part of the dive from 1323 to ~1200 m, and they were notably covered with associates, including ctenophores, crinoids, ophiuroids, and shrimp. Unknown goniasterid or odontasterid seastars were observed feeding on *Walteria* sponges. We also encountered *Evoplosoma* seastars feeding on a very large primnoid (cf. *Calyptrophora*), with bare coral skeleton present in proximity to the seastar. Other sponges included large vase-like Euplectellidae and other globe-shaped glass sponges. Additional invertebrates observed on the exposed rock surfaces and on the sediment surface included a few different types of holothurians, seastars (*Henricia*), a phryncrinid sea lily, anemones, shrimps, hermit crab, a dandelion benthic siphonophore, echinothuriid sea urchin, a homolid crab with a plexaurid hat on a large coralliid, and goniasterid seastars on exposed rocks.

**Overall Map of the ROV Dive Area**

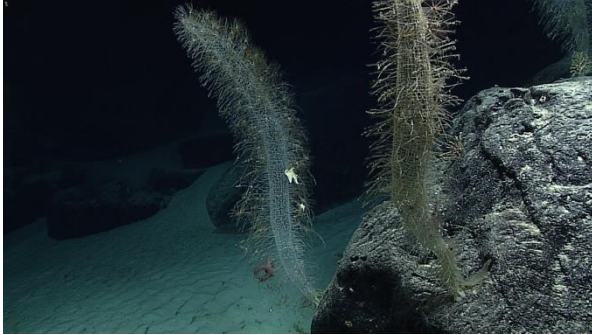


**Close-up Map of Main Dive Site**



**Representative Photos of the Dive**





Several *Walteria* glass sponges were observed during the first part of the dive from 1323 to ~1200 m

A velvet whalefish seen during the dive

### Samples Collected

#### Sample

Sample ID	EX1703_20170322T223742_D2_DIVE15_SPEC01GEO	
Date (UTC)	20170322	
Time (UTC)	22:37:42	
Depth (m)	1172.13	
Temperature (°C)	3.94	
Field ID(s)	Mn-crusting basalt	
Comments		

#### Sample

Sample ID	EX1703_20170322T232658_D2_DIVE15_SPEC02BIO	
Date (UTC)	20170322	
Time (UTC)	23:26:58	
Depth (m)	1117.73	
Temperature (°C)	3.97	
Field ID(s)	Plexauridae	
Comments		

**Please direct inquiries to:**

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