

INDEX SATAL 2010: Indonesia-USA Deep-Sea Exploration of the Sangihe Talaud Region
"An Indonesia and US Journey to discover and value the hidden world of our deep sea"

Video Caption

This video shows a subset of the spectacular footage captured by the high definition cameras on the *Little Hercules* ROV and camera platform during dives from June 29 to July 11, 2010 of "INDEX 2010: Indonesia-USA Deep-Sea Exploration of the Sangihe Talaud Region." The video footage shows active vent sites revealed July 30th on the submarine volcano Kawio Barat; one site is densely covered with shrimp and limpets, while another site features sulphide chimneys covered with a very dense population of stalked barnacles. Video captured after July 30th shows just a small sample of the stunningly diverse and abundant marine life residing in Indonesia's deep-sea. Video courtesy of NOAA *Okeanos Explorer* Program, INDEX-SATAL 2010.

Image Caption

Page #	Image Title	Date Imaged	Approximate Depth (m)	ROV Dive Number	Site Name	Caption
1	20100629_04h41m43s09_CPHD_UNDERWATER_ROV_IMAGE	June 29, 2010	2077	EX1004_Leg2_ROV01	Kawio Barat	The Remotely Operated Vehicle (ROV) Little Hercule descends through water column. Image captured June 29th at 2077 meters depth by the Camera Platform during the ROV descent to Kawio Barat volcano during the INDEX SATAL 2010 Expedition.
2	20100630_02h02m47s06_CPHD_ROV_ZOOM	June 30, 2010	1836	EX1004_Leg2_ROV02	Kawio Barat	The Remotely Operated Vehicle (ROV) Little Hercules descends through water column. Image captured June 30th at 1836 meters depth by the Camera Platform during the ROV descent to Kawio Barat volcano during the INDEX SATAL 2010 Expedition.
3	<i>Okeanos Explorer</i> Control Room	July 6, 2010	N/A	EX1004_Leg2_ROV06	Paradise Valley	The ROV control room aboard NOAA Ship <i>Okeanos Explorer</i> is mission central, serving a variety of operations from mapping to ROV operations to facilitating interactions between the ship and shore.
4	20100726_05h15m47s11_CPHD_HERC_ROCK_WALL	July 26, 2010	2123	EX1004_Leg3_ROV04	Site G	The Camera Platform images the Remotely Operated Vehicle (ROV) Little Hercules as it investigates an animal hot-spot at 2123 meters depth on "Site G" on July 26, 2010 during the INDEX SATAL 2010 Expedition.
5	20100703_04h48m18s26_ROVHD_CORAL_ZOOM	July 3, 2010	516	EX1004_Leg2_ROV05	Nuang Traverse	A close look at the red arms of a Sea Lily living 516 meters deep. Image captured by the Little Hercules ROV at a site referred to as "Nuang Traverse" on July 3, 2010 during the INDEX SATAL 2010 Expedition.
6	20100703_05h06m50s10_ROVHD_CRAB	July 3, 2010	516	EX1004_Leg2_ROV05	Nuang Traverse	The exoskeleton of this majid crab living 516 meters deep provides substrate to many species of hydroids and barnacles. Image captured by the Little Hercules ROV at a site referred to as "Nuang Traverse" on July 3, 2010 during the INDEX SATAL 2010 Expedition.
7	20100703_05h25m01s22_ROVHD_BASKET_STAR	July 3, 2010	555	EX1004_Leg2_ROV05	Nuang Traverse	A giant basket star with an intricate network of bifurcating legs is imaged 555 meters deep by the Little Hercules ROV at a site referred to as "Nuang Traverse" on July 3, 2010 during the INDEX SATAL 2010 Expedition.
8	20100708_04h42m07s03_ROVHD_CORAL_ZOOM	July 8, 2010	1588	EX1004_Leg2_ROV08	K1	Close-up view of a bubblegum coral being colonized by a parasitic zoanthid at 1588 meters depth. Image captured by the Little Hercules ROV at a site referred to as "K1" on July 8, 2010 during the INDEX SATAL 2010 Expedition
9	20100711_05h24m53s19_ROVHD_CRABS	July 11, 2010	422	EX1004_Leg2_ROV11	Site K	This beautiful image displays a four-way association between creatures: The hermit crab is associated with the soft coral (with its polyps retracted). The hermit crab is also associated with an epibiotic anemone - the snail shell provides a home to both animals. Image captured by the Little Hercules ROV at 422 meters depth on "Site K," explored July 11, 2010 during the INDEX SATAL 2010 Expedition.
10	20100711_05h43m50s13_ROVHD_SNAIL	July 11, 2010	418	EX1004_Leg2_ROV11	Site K	An overview of the extraordinary biodiversity found at seamount K, even at small scales. Image captured by the Little Hercules ROV at 418 meters depth on "Site K," explored July 11, 2010 during the INDEX SATAL 2010 Expedition
11	20100711_07h11m54s08_ROVHD_WHITE_VENUSFLYTRAP	July 11, 2010	471	EX1004_Leg2_ROV11	Site K	A close up view of a white venus fly trap anemone. Image captured by the Little Hercules ROV at 471 meters depth on "Site K," explored July 11, 2010 during the INDEX SATAL 2010 Expedition.
12	20100712_23h42m34s04_ROVHD_CORAL_ZOOM_07	July 12, 2010	445	EX1004_Leg2_ROV12	Site J	A detailed view of the pinnate polyps of a gorgonian coral. Image captured by the Little Hercules ROV at 445 meters depth on "Site J," explored July 12, 2010 during the INDEX SATAL 2010 Expedition.
13	20100713_02h10m06s16_ROVHD_YELLOW_MAT_02	July 13, 2010	807	EX1004_Leg2_ROV13	Site K	A close look at a rare representant of the phylum cnidaria. Image captured by the Little Hercules ROV at 807 meters depth on "Site K," explored July 13, 2010 during the INDEX SATAL 2010 Expedition.

14	20100713_05h10m50s25_ROVHD_CORAL_CRABS	July 13, 2010	616	EX1004_Leg2_ROV13	Site K	A large black coral colony and associated squat lobsters. Image captured by the Little Hercules ROV at 616 meters depth on "Site K," explored July 13, 2010 during the INDEX SATAL 2010 Expedition.
15	20100724_03h51m29s12_ROVHD_PURPLE_CORAL	July 24, 2010	714	EX1004_Leg3_ROV02	Site T	A purple Sea Lily filters the current for food. Image captured by the Little Hercules ROV at 714 meters depth on "Site T," explored July 24, 2010 during the INDEX SATAL 2010 Expedition.
16	20100725_05h36m22s25_ROVHD_BRITTLE_STARS	July 25, 2010	1789	EX1004_Leg3_ROV03	Site G	A lone brittlestar wraps itself around the stalk of a golden coral. Image captured by the Little Hercules ROV at 1789 meters depth on "Site G," explored July 25, 2010 during the INDEX SATAL 2010 Expedition.
17	20100726_02h33m32s10_ROVHD_TRIPOD_FISH_02	July 26, 2010	2100	EX1004_Leg3_ROV04	Site G	A tripod fish positions itself facing into the current, perhaps waiting for its next meal. Image captured by the Little Hercules ROV at 2100 meters depth on "Site G," explored July 26, 2010 during the INDEX SATAL 2010 Expedition
18	20100726_03h34m31s07_ROVHD_BIG_FISH_01	July 26, 2010	2099	EX1004_Leg3_ROV04	Site G	A bizarre deep-sea fish, perhaps a new species to science. Image captured by the Little Hercules ROV at 2099 meters depth on "Site G," explored July 26, 2010 during the INDEX SATAL 2010 Expedition.
19	20100726_06h06m16s24_ROVHD_CORAL_W_SPINY_CRAB	July 26, 2010	2068	EX1004_Leg3_ROV04	Site G	A spiny squat lobster clings to the branches of a black coral. Image captured by the Little Hercules ROV at 2068 meters depth on "Site G," explored July 26, 2010 during the INDEX SATAL 2010 Expedition.
20	20100726_07h01m17s22_ROVHD_URCHIN	July 26, 2010	1951	EX1004_Leg3_ROV04	Site G	A colorful deep-sea urchin with epysymbionts. Image captured by the Little Hercules ROV at 1951 meters depth on "Site G," explored July 26, 2010 during the INDEX SATAL 2010 Expedition.
21	20100727_03h27m02s23_ROVHD_PELAGC_HOLOTHURIA	July 27, 2010	3205	EX1004_Leg3_ROV05	Site K	A spectacular image of a benthopelagic sea cucumber swimming in the near freezing waters of the abyss. Image captured by the Little Hercules ROV at 3205 meters depth on "Site K," explored July 27, 2010 during the INDEX SATAL 2010 Expedition.
22	20100728_02h16m32s27_ROVHD_SOFT_RED_CORAL	July 28, 2010	1296	EX1004_Leg3_ROV06	Landak	The soft coral, <i>Anthomastus</i> , was found on a variety of seamounts in the North Sulawesi sea. Image captured by the Little Hercules ROV at 1296 meters depth on a site referred to as "Landak" on July 28, 2010.
23	20100728_05h15m25s28_ROVHD_ANEMONE	July 28, 2010	1120	EX1004_Leg3_ROV06	Landak	A close-up view of a purple anemone. Image captured by the Little Hercules ROV at 1120 meters depth on a site referred to as "Landak" on July 28, 2010.
24	20100730_02h57m05s05_ROVHD_CUP_CORAL	July 30, 2010	890	EX1004_Leg3_ROV08	Eastern Pujada Ridge	A small cup coral about 2cm in height with its tentacles extended. Image captured by the Little Hercules ROV at 890 meters depth on a site referred to as "Eastern Pujada Ridge" on July 30, 2010.
25	20100801_04h21m48s19_ROVHD_SNAIL_MACRO	August 1, 2010	1525	EX1004_Leg3_ROV09	Baruna Jaya IV - Site 1	About an 8cm long gastropod snail crawling on a wood fall (log) at 1525 depth. Image captured by the Little Hercules ROV at a site referred to as "Baruna Jaya IV - Site 1" on August 1, 2010.
26	20100801_04h45m01s12_ROVHD_WHIP_CORAL_W_STAR	August 1, 2010	1517	EX1004_Leg3_ROV09	Baruna Jaya IV - Site 1	A rarely seen pink brittlestar on an octocoral (soft coral). Image captured by the Little Hercules ROV at 1517 meters depth on a site referred to as "Baruna Jaya IV - Site 1" on August 1, 2010.
27	20100801_06h24m30s09_ROVHD_WHITE_CORAL	August 1, 2010	1490	EX1004_Leg3_ROV09	Baruna Jaya IV - Site 1	A translucent crab living amongst the branches of an octocoral. Image captured by the Little Hercules ROV at 1430 meters depth on a site referred to as "Baruna Jaya IV - Site 1" on August 1, 2010.
28	20100801_06h53m52s00_ROVHD_CUCUMBER_W_WORM_2	August 1, 2010	1526	EX1004_Leg3_ROV09	Baruna Jaya IV - Site 1	A 5cm long scaleworm on the underside of a 2 foot long holothurian (sea cucumber) at 1526 meters. Image captured by the Little Hercules ROV on a site referred to as "Baruna Jaya IV - Site 1" on August 1, 2010.
29	20100802_00h31m13s21_ROVHD_URCHIN	August 2, 2010	279	EX1004_Leg3_ROV10	Zona Senja	A stunning example of a striped sea urchin living in the twilight zone. Image captured by the Little Hercules ROV at 279 meters depth on a site referred to as "Zona Senja" on August 2, 2010.
30	20100802_01h12m16s23_ROVHD_STARFISH	August 2, 2010	271	EX1004_Leg3_ROV10	Zona Senja	A stunning 10-armed sea star. Image captured by the Little Hercules ROV at 271 meters depth on a site referred to as "Zona Senja" on August 2, 2010.
31	20100802_01h16m07s15_ROVHD_YELLOW_CORAL_CRAB	August 2, 2010	272	EX1004_Leg3_ROV10	Zona Senja	A rarely observed yellow scleractinean coral, with a distinct morphology from other hard corals observed. Image captured by the Little Hercules ROV at 272 meters depth on a site referred to as "Zona Senja" on August 2, 2010.

32	20100802_02h58m58s11_ROVHD_BATFISH_2	August 2, 2010	274	EX1004_Leg3_ROV10	Zona Senja	A benthic fish called a Sea Robin. This fish has several sets of modified fins - some modified for perching on the seafloor, and 'wing-like' fins for swimming. Image captured by the Little Hercules ROV at 279 meters depth on a site referred to as "Zona Senja" on August 2, 2010.
33	20100802_04h06m55s25_ROVHD_SQUAT_LOBSTER	August 2, 2010	250	EX1004_Leg3_ROV10	Zona Senja	A squat lobster observed in increased abundance in the vicinity of deep coral communities. Image captured by the Little Hercules ROV at 250 meters depth on a site referred to as "Zona Senja" on August 2, 2010.
34	20100802_23h44m07s03_ROVHD_CRINOID_OCTOPUS	August 2, 2010	1876	EX1004_Leg3_ROV11	Kawio Barat	A sea lily (crinoid) pointed in the direction of the current. The arms of a sea lily are designed to capture food particles drifting by in the current. Image captured by the Little Hercules ROV at 1876 meters depth on Kawio Barat submarine volcano on August 2, 2010.
35	20100802_23h54m32s22_ROVHD_CORAL	August 2, 2010	1876	EX1004_Leg3_ROV11	Kawio Barat	A crab with outstretched claws about 2 inches wide, shares a home with a spikey-armed brittlestar on a primnoid coral. Image captured by the Little Hercules ROV at 1876 meters depth on Kawio Barat submarine volcano on August 2, 2010.
36	20100803_00h09m37s20_ROVHD_BANACLES	August 3, 2010	1880	EX1004_Leg3_ROV11	Kawio Barat	Stalked barnacles inhabiting an extinct sulphide chimney on Kawio Barat volcano, with feeding appendages extended. Image captured by the Little Hercules ROV at 1880 meters depth on August 3, 2010.
37	20100803_02h07m25s22_ROVHD_HOT_VENT_2	August 3, 2010	1849	EX1004_Leg3_ROV11	Kawio Barat	.5 to 1 meter tall active and inactive spires on the summit of the Kawio Barat submarine volcano. Image captured by the Little Hercules ROV at 1849 meters depth on August 3, 2010.
38	20100805_01h50m49s20_ROVHD_SPONGE	August 5, 2010	833	EX1004_Leg3_ROV13	Gelembung	A galatheid crab dwelling inside a glass sponge, with fauna living on the outside of the sponge. Image captured August 3, 2010 by the Little Hercules ROV at 833 meters depth on a new seamount mapped by Baruna Jaya IV during the INDEX SATAL 2010 Expedition.
39	20100805_03h00m00s12_ROVHD_PINK_STARFISH	August 5, 2010	725	EX1004_Leg3_ROV13	Gelembung	A tiny pink brittlestar with a central disk of about .5 inch. Image captured August 5, 2010 by the Little Hercules ROV at 725 meters depth on a new seamount mapped by Baruna Jaya IV during the INDEX SATAL 2010 Expedition.
40	20100805_04h43m09s02_ROVHD_BLACK_CRINOID	August 5, 2010	772	EX1004_Leg3_ROV13	Gelembung	A rarely observed black stalked crinoid. Image captured August 5, 2010 by the Little Hercules ROV at 772 meters depth on a new seamount mapped by Baruna Jaya IV during the INDEX SATAL 2010 Expedition.
41	20100805_05h21m40s09_ROVHD_SPIKEY_CRAB_2.jpg	August 5, 2010	751	EX1004_Leg3_ROV13	Gelembung	Lothodid-type spiked crab with spiked holothurian and carnivorous anemone. Image captured August 5, 2010 by the Little Hercules ROV at 751 meters depth on a new seamount mapped by Baruna Jaya IV during the INDEX SATAL 2010 Expedition.
42	20100805_06h43m54s08_ROVHD_WHITE_SPONGE	August 5, 2010	700	EX1004_Leg3_ROV13	Gelembung	A squat lobster and sea spider live on the fringe of a barrel sponge. Image captured August 5, 2010 by the Little Hercules ROV at 700 meters depth on a new seamount mapped by Baruna Jaya IV during the INDEX SATAL 2010 Expedition.
43	20100806_02h55m12s11_ROVHD_BRANCHING_CORAL.jpg	August 6, 2010	1406	EX1004_Leg3_ROV14	Gelembung II	A crab with outstretched arms about 8 inches across, which are only observed living on soft coral. Image captured August 5, 2010 by the Little Hercules ROV at 704 meters depth on a new seamount mapped by Baruna Jaya IV during the INDEX SATAL 2010 Expedition.
44	20100806_03h09m10s08_ROVHD_LARGE_CORAL_HANGUP	August 6, 2010	1382	EX1004_Leg3_ROV14	Gelembung II	Scleractinian hard coral. Based on published results, this coral may be 1,000 to 6,000 years old. Image captured August 5, 2010 by the Little Hercules ROV at 1382 meters depth on a new seamount mapped by Baruna Jaya IV during the INDEX SATAL 2010 Expedition.

*All Images courtesy of NOAA Okeanos Explorer Program, INDEX-SATAL 2010.