



NOAA Office of Ocean Exploration Quick Look Report

Expedition Title: GalAPAGoS 2005

Results (please check all disciplines in which this cruise collected data)	Details (please describe any novel discoveries in the discipline, answers such as “possible, awaiting data analysis” and “no apparent discoveries” are acceptable)
Bathymetric Mapping x Yes <input type="checkbox"/> No	EM-300 Survey of the GSC from 89.5°W – 94.5°W and of the EPR Crest 11° - 9°N (during transit). DSL-120a sidescan backscatter, phase bathymetry, and SM-2000 bathy for GSC ridge crest, 89.5°W – 94.5°W.
New Species Discovered <input type="checkbox"/> Yes <input type="checkbox"/> No possibly	Unknown. Fauna were imaged but not sampled.
Bio-prospecting <input type="checkbox"/> Yes x No	No apparent discoveries.
Habitat Range Extended x Yes <input type="checkbox"/> No	Riftia tubeworms observed much farther west (at Navidad vents 94°04’W) than previously. Other vent fauna (clams, mussels, crabs, serpulids) also seen at Penguinas and Igunas vents (91°57’ – 53’W), farther west than previously.
Chemical Processes x Yes <input type="checkbox"/> No	Possibly, awaiting sample analysis. Low H ₂ S and high Fe may explain sparse vent fauna observed.
Biological Processes x Yes <input type="checkbox"/> No	Vent communities were few and isolated; hot spot influence apparently is an obstacle to larva and gene dispersal along GSC.
Geologic Processes x Yes <input type="checkbox"/> No	Volcanism is episodic and effusion rates are low in general. The bulk of the ridge exhibits waning hydrothermal venting related to a pulse of magmatism 10’s – 100’s years ago. Non-steady state likely due to hotspot pulses.
Physical Processes x Yes <input type="checkbox"/> No	New data about bottom current directions was obtained from plume data and medea images.
Sub/ROV/AUV Dives x Yes <input type="checkbox"/> No	DSC 120a with SM-2000 scanning sonar; Medea as stand-alone camera sled with T, light scattering, and chemical sensors.
New Technology x Yes <input type="checkbox"/> No	First use of Medea as a stand alone camera sled w/out Jason. First full integration of DSC-120a with SM-2000. First use of plume sensors on Medea.
Maritime Cultural Heritage <input type="checkbox"/> Yes x No	No discoveries.
Outreach x Yes <input type="checkbox"/> No	Media call on 2006/01/05 between PIs, Fred Gorell, and media contacts. Web coordination, daily web logs and “Ask an Explorer.” UCSB educational videos shot during expedition.
Students Involved x Yes <input type="checkbox"/> No	Six graduate students and six undergraduate students from University of California at Santa Barbara (UCSB). One graduate student from University of South Carolina.
Multidisciplinary x Yes <input type="checkbox"/> No	Rachel Haymon, Ken Macdonald (UCSB) and Scott White (USC) studying the geology of the ridge and its relationship to the hydrothermal systems. Ed Baker, Joe Resing and PMEL group studying plume distribution and chemistry. Rachel Haymon and students studying microbes in plumes. Taylor Heyl and Tim Shank (WHOI) performing biological photoanalysis.
Exploration of New Regions x Yes <input type="checkbox"/> No	Explored the Galapagos Spreading Center (GSC) from 89.5°W to 94.5°W

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