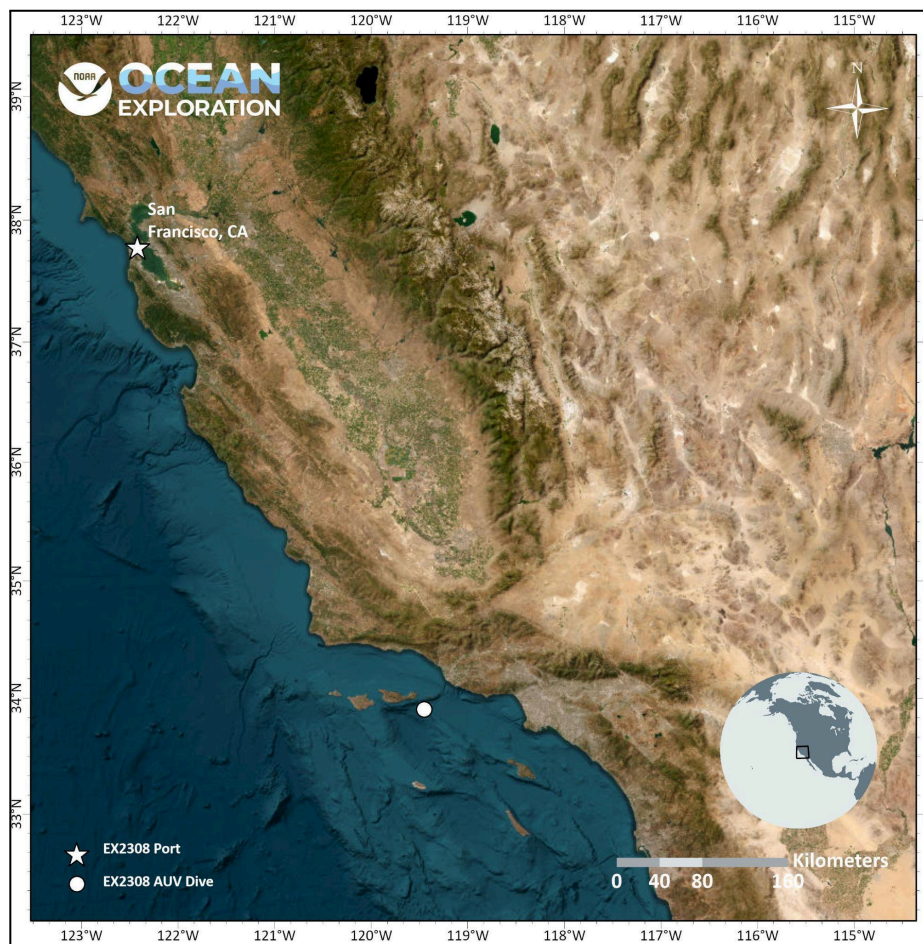


AUV Dive Summary, EX-23-08, Dive 02, October 28, 2023

General Location Map



Dive Information

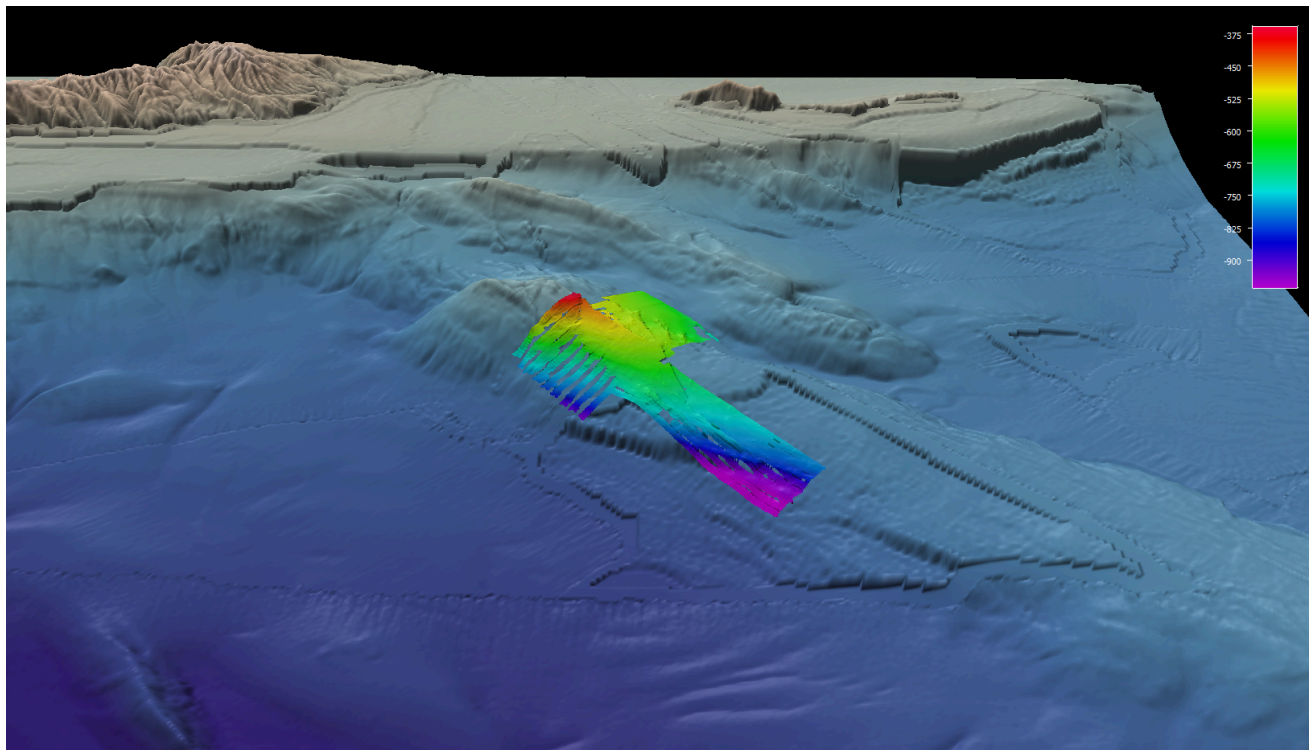
Site Name	CINMS Sponge Reef, South Santa Cruz Island, CA
General Area Descriptor	Channel Islands, California Coast, Pacific Ocean
Science Team Leads	Leonardo Macelloni and Marco D'Emidio
Expedition Coordinator	Sam Cuellar
AUV Supervisor/ Operating Organization	Max Woolsey and Roy Jarnigan, University of Southern Mississippi

Mapping Lead(s)	Dan Freitas and Anna Coulson
Dive Purpose	To collect high-resolution multibeam and subbottom data over several sponge mound features just to the south of Santa Cruz Island in the Channel Islands
Was the dive restricted for Underwater Cultural Heritage?	No
Standard AUV Dive Summary Data	<p>Start time [UTC]: 10/28/2023 22:19:00</p> <p>Start Location: 33.9202, -119.4731</p> <p>End time [UTC]: 10/29/2023 23:02:00</p> <p>Dive duration: 25h 43min</p> <p>Distance traveled: 14,400m</p> <p>Depths surveyed: Up to -1075m</p>
Dive Description	<p>Eagle Ray was launched on an 18+ hour mission on a glass sponge reef just off the southeast shore of Santa Cruz Island in the CINMS. This reef was investigated with the EX subbottom profiler on EX2208 in October of 2022. The AUV collected multibeam, subbottom profiler, and magnetometer over the site at a much higher resolution than is possible from the surface, operating at an altitude of ~50m. Outer beams of the multibeam were cut off in areas of steep relief due to a settings issue with the multibeam for this dive, causing small data holidays on overlapping lines to the south.</p>

Equipment Deployed

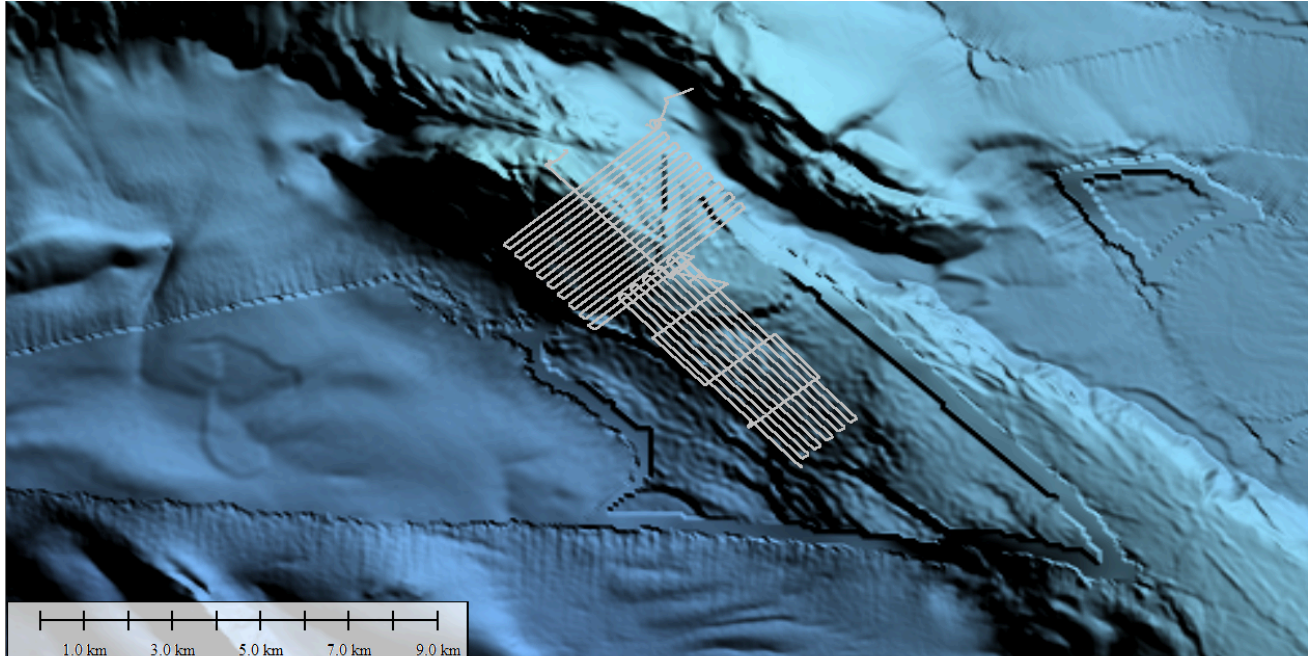
AUV	<i>Eagle Ray</i>
AUV Equipment Payload	Norbit WBMS multibeam echosounder (512 beams, 400kHz, depth resolution <10mm), GeoAcoustics polarity-preserving CHIRP subbottom profiler (3.5-12 kHz), SeaBird FastCAT CTD, Ocean Floor Geophysics Magnetometer
Equipment Malfunctions	None
Data Types Collected	Multibeam bathymetry, backscatter, water column, sub-bottom profile, magnetometer

Overview Map of Main Dive Site



Map representative of area and survey conducted by Eagle Ray. Background bathymetry sourced from GMRT.

Overview of AUV Dive Plan



Eagle Ray mission plan for Dive 02 south of Santa Cruz Island.

Scientists Involved (provide name, email, affiliation)

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