

Draft Standard Form C

Final Cruise Report

Cruise name/number – Lone Ranger cruise LR-5-11

Authorization

Coastal State – Bermuda

Authorization document number - F2010-101

National participants – none

Scientist in charge of reporting

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Brief Description of Scientific Objective:

There were three scientific projects conducted at Station #1 off Bermuda as part of a larger study of three additional stations along a southwestern transect across the Sargasso Sea..

1. Pelagic Sargassum communities as indicators of surface ocean warming and increasing acidity: The Sargassum community was sampled to determine the species composition, abundance and biomass of mobile fauna and attached epibionts for comparison with previous records in the same region of the Sargasso Sea 30 to 35 years ago.
2. Genetic connectivity of fauna associated with pelagic Sargassum: Dominant species of the Sargassum community were sampled to determine their genetic connectivity between populations at four other collection sites along a transect between Bermuda and the Bahamas.
3. Biodiversity of large mobile scavengers at abyssal depths: A free-vehicle baited camera system was deployed at Station #1 to study the biodiversity of large mobile animals attracted to bait.

Update on anticipated dates for delivery of final results:

Metadata: Station #1 (31° 53.4'N, 64° 1.7'W; 4600 m depth), surface water salinity and temperature.

Processed data: All the data and results from this cruise are presented in a published paper (Huffard, C.L., S. von Thun, A.D. Sherman, K. Sealey and K.L. Smith Jr. (2014) Pelagic Sargassum community change over a 40-year period: temporal and spatial variability. *Marine Biology* 61: 2735-2751). See attached pdf.

There is additional information in a press release

(<http://www.mbari.org/news/newsreleases/2014/sargasso/sargasso-release.html>). See also attached pdfs.