

APPLICATION FOR CONSENT TO CONDUCT MARINE SCIENTIFIC RESEARCH

1. General Information

1.1 Cruise name and/or number:	Van Mooy AE 1409 Tricho consortia - F2013-116
--------------------------------	---

1.2 Sponsoring institution(s):		
Name	Address	Name of Director
Bermuda Institute of Ocean Sciences, Inc. (BIOS)	Ronald H. Harelstad, Marine Superintendent R/V Atlantic Explorer Bermuda Institute of Ocean Sciences (BIOS) 17 Biological Station, St. George's GE 01, Bermuda 441-297-1880 ext 208; Cell: 985-515-8386 Website: www.bios.edu	Dr. William Curry

1.3 Scientist in charge of the project:	
Name:	Benjamin Van Mooy
Country:	US
Affiliation:	Woods Hole Oceanographic Institution
Address:	Marine Chemistry & Geochemistry Woods Hole, MA , Massachusetts 02543 US
Telephone:	508-289-2322
Email:	bvanmooy@whoi.edu

1.4 Entity(ies) /Participant(s) from coastal State involved in the planning of the project:	
Name:	See Section 6.2.
Country:	
Affiliation:	
Address:	
Telephone:	
Fax:	
Email:	
Website (for CV and photo):	

2. Description of Project

2.1 Nature and objectives of the project:
Dissolved Phosphorus Processing by Trichodesmium Consortia: quantitative partitioning, role of microbial coordination, and impact on nitrogen fixation. The goal of the cruise is to sample colonies of the nitrogen fixing cyanobacterium Trichodesmium. To do this we will occupy stations across the western subtropical and tropical North Atlantic. We will take samples by net tow and CTD. The samples we collected will be used in on-deck incubations experiments, and subjected to on-board chemical analysis.

2.2 Relevant previous or future research projects:
will be provided

2.3 Previous publications relating to the project:
will be provided

3. Geographical Areas

3.1 Indicate geographical areas in which the project is to be conducted (with reference in latitude and longitude, including coordinates of cruise track/ way points):
This cruise begins in Bermuda and goes south to the Leeward and Windward Islands, then to the NE Coast of South American, then ends in Barbados. Station #1: 08 May, 32N x 065W, then south to Station #2: 11 May, 26N x 065W, then south to Station #3: 13 May, 20N x 065W, then east to Station #4: 15 May, 20N x 059W, then southeast to Station #5: 17 May, 15.8N x 54.8W, then southeast to Station #6: 19 May, 11.6N x 050.6W, then south to Station #7: 21 May, 05.6N x 050.6W, then west to Station #8: 24 May, 07.7N x 056.2W, then northwest to Station #9: 26 May, 13.3N x 058.3W, then transit to Barbados and end of cruise on 28 May.

3.2 Attach chart(s) at an appropriate scale (1 page, high-resolution) showing the geographical areas of the intended work and, as far as practicable, the location and depth of sampling stations, the tracks of survey lines, and the locations of installations and equipment.
Chart provided - see Section 10.1.

4. Methods and Means to be Used

4.1 Particulars of vessel:	
Name:	ATLANTIC EXPLORER
Type/Class:	Ship
Nationality (Flag state):	United States
Identification Number (IMO/Lloyds No.):	NY 5785 FJ IMO 8120014
Owner:	Bermuda Institute of Ocean Sciences, Inc. (BIOS)
Operator:	Bermuda Institute of Ocean Sciences, Inc. (BIOS)
Overall length (meters):	52.00
Maximum draught (meters):	3.20
Displacement/Gross tonnage:	1267.00
Propulsion:	
Cruising:	
Maximum speed:	
Call sign:	WDC 9417
INMARSAT number and method and capability of communication (including emergency frequencies):	Iridium â€ (480) 768-2500 + 8816 3183 0524 INMARSAT â€ 011-870-773-150-604 SSB â€ 4125 KHz
Name of master:	Quentin Lewis - captain@bios.edu
Number of crew:	11
Number of scientists on board:	20

4.2 Other craft in the project, including its use:
none

4.3 Particulars of methods and scientific instruments:		
Types of samples and measurements	Methods to be used	Instruments to be used
Water and phytoplankton Samples.	CTD/rosette, radioisotope van, abundant unshaded deck space for our on-deck incubators.	CTD, Auto-analyzer.

4.4 Indicate nature and quantity of substances to be released into the marine environment:
No

4.5 Indicate whether drilling will be carried out. If yes, please specify:
No

4.6 Indicate whether explosives will be used. If yes, please specify type and trade name, chemical content, depth of trade class and stowage, size, depth of detonation, frequency of detonation, and position in latitude and longitude:
No

4.7 Indicate whether protected species be studied. If yes, please specify:
No

5. Installations and Equipment

Details of installations and equipment (including dates of laying, servicing, method and anticipated timeframe for recovery, locations and depth, and measurements):
No

6. Dates

6.1 Expected dates of first entry into and final departure from the research area by the research vessel and/or other platforms:
Project Start Date: May 08, 2014
Project End Date: Jun 01, 2014

6.2 Coastal State-specific details:		
Coastal Area	Estimated Entry Date	Estimated Departure Date
Barbados	May 25, 2014	Jun 01, 2014
Explanation of multiple entries:		
N/A		
Research will be performed: between 12-200 nm		
Extent to which Barbados will be enabled to participate or to be represented in the research project:		
Participant or Collaborator.		
Name, affiliation and contact information for all participants from coastal state Barbados:		
Coastal Area	Estimated Entry Date	Estimated Departure Date
Brazil	May 20, 2014	May 21, 2014
Explanation of multiple entries:		
N/A		

Research will be performed: between 12-200 nm		
Extent to which Brazil will be enabled to participate or to be represented in the research project: Limited - only one CTD Station		
Name, affiliation and contact information for all participants from coastal state Brazil:		
Coastal Area	Estimated Entry Date	Estimated Departure Date
French Guiana	May 20, 2014	May 22, 2014
Explanation of multiple entries: N/A		
Research will be performed: between 12-200 nm		
Extent to which French Guiana will be enabled to participate or to be represented in the research project: Transit through coastal waters only - underway sampling only - no port call.		
Name, affiliation and contact information for all participants from coastal state French Guiana:		
Coastal Area	Estimated Entry Date	Estimated Departure Date
Suriname	May 22, 2014	May 24, 2014
Explanation of multiple entries: N/A		
Research will be performed: between 12-200 nm		
Extent to which Suriname will be enabled to participate or to be represented in the research project: Limited - only 1 CTD station planned		
Name, affiliation and contact information for all participants from coastal state Suriname:		
Coastal Area	Estimated Entry Date	Estimated Departure Date
Guyana	May 24, 2014	May 25, 2014
Explanation of multiple entries: N/A		
Research will be performed: between 12-200 nm		
Extent to which Guyana will be enabled to participate or to be represented in the research project: Limited - transit through area and underway sampling only.		
Name, affiliation and contact information for all participants from coastal state Guyana:		
Coastal Area	Estimated Entry Date	Estimated Departure Date
Virgin Islands, British	May 12, 2014	May 14, 2014
Explanation of multiple entries: N/A		
Research will be performed: between 12-200 nm		
Extent to which Virgin Islands, British will be enabled to participate or to be represented in the research project: Limited - 1 CTD station scheduled & underway sampling.		
Name, affiliation and contact information for all participants from coastal state Virgin Islands, British:		
Coastal Area	Estimated Entry Date	Estimated Departure Date
Anguilla	May 13, 2014	May 14, 2014
Explanation of multiple entries: N/A		
Research will be performed: between 12-200 nm		
Extent to which Anguilla will be enabled to participate or to be represented in the research project: Limited - transit only- underway sampling		
Name, affiliation and contact information for all participants from coastal state Anguilla:		
Coastal Area	Estimated Entry Date	Estimated Departure Date
Antigua and Barbuda	May 14, 2014	May 15, 2014
Explanation of multiple entries: N/A		
Research will be performed: between 12-200 nm		
Extent to which Antigua and Barbuda will be enabled to participate or to be represented in the research project: Transit only - underway sampling		
Name, affiliation and contact information for all participants from coastal state Antigua and Barbuda:		

7. Port Calls

No port calls

8. Participation of the representative of the coastal State

8.1 Modalities of the participation of the representative of the coastal State in the research project:

See Section 6.2.

8.2 Proposed dates and ports for embarkation/disembarkation:

See Section 6.2.

9. Access to Data, Samples and Research Results

9.1 Expected dates of submission to coastal State of preliminary report, which should include the expected dates of submission of the data and research results:

No more than 60 days from the end date of the research as provided in Section 6.1.

9.2 Anticipated dates of submission to the coastal State of the final report:

No more than 2 years from the end date of the research as provided in Section 6.1.

9.3 Proposed means for access by coastal State to data (including format) and samples:

Data will be provided through official channels at no cost to the coastal State(s). Samples will be provided upon request.

9.4 Proposed means to provide coastal State with assessment of data, samples and research results:

Assessment of data, samples and research results will be provided at no cost to the coastal State(s).

9.5 Proposed means to provide assistance in assessment or interpretation of data, samples and research results:

Assistance in further assessment or interpretation will be provided upon request.

9.6 Proposed means of making results internationally available:

UNOLS/NSF R2R; Scientific Journals and Publications.

10. List of Supporting Documentation

10.1 List of attachments, such as additional forms required by the coastal State, etc.:

Attachment Type	Description	Attachment	Submission Date
Proposed Cruise Track	VanMooy Cruise Track	2707812500_VanMooy Cruise Track.jpg	Dec 12, 2013
Proposed Cruise Track	Van Mooy Cruise Track without EEZ boundaries.	9670468750_VanMooy Cruise Track.jpg	Jan 03, 2014