PRELIMINARY CRUISE REPORT - Cruise C-283A

U.S. Dept. of State CRUISE No.:	F2018-054
SHIP NAME:	SSV Corwith Cramer
OPERATING INSTITUTE OR AGENCY:	Sea Education Association
PROJECT TITLE:	SEA Cruise C-283A: Alumni Sail
CRUISE DATES (INCLUSIVE):	29 December 2018 – 3 January 2019

CHIEF SCIENTIST:	
Name	Victoria Smith
Affiliation	Sea Education Association
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CLEARANCE COUNTRIES:	United Kingdom (British Virgin Islands), U.S. Virgin Islands, U.S.A.
FOREIGN PARTICIPANTS:	Achim Kretschmer (Germany)

DESCRIPTION OF SCIENTIFIC PROGRAM (include page-sized chart showing cruise track):

The goals of the program were primarily educational – alumni from prior *SEA Semester* programs and their guests joined the SSV *Corwith Cramer* to participate in shipboard scientific activities. This included collecting and analyzing two surface neuston zooplankton tows in Francis Drake Passage to look at species composition and density.

In addition, we collected the following continuous data sets during our voyage while underway:

- 1. ADCP measurements of ocean currents
- 2. CHIRP bottom profiles
- 3. Surface temperature, salinity, fluorescence, CDOM, turbidity, wind speed and direction

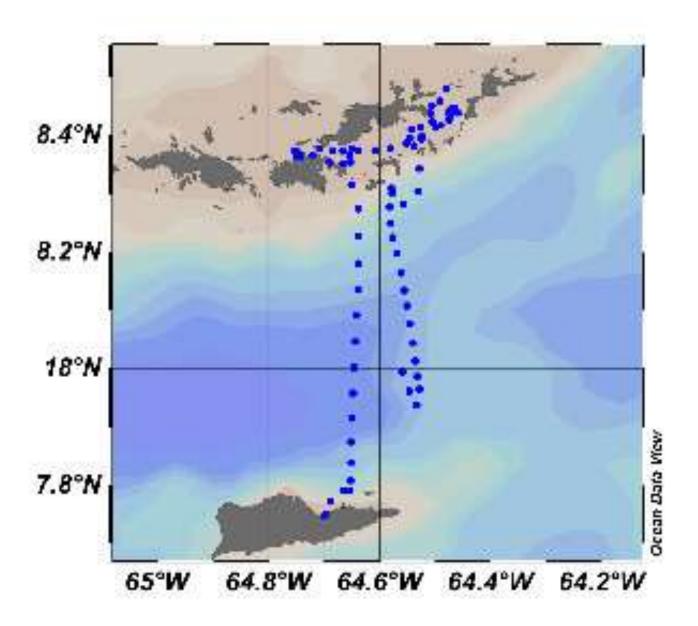
SCHEDULE OF DATA DELIVERY:

Data Description	Date of Expected Delivery to Dept. of State
Final cruise report and electronic access to archived data	1 June 2019
Data summary, station locations	1 June 2019

CRUISE TRACK

Sea Education Association Cruise C-283A Caribbean Sea between St. Croix and the British Virgin Islands 29 December 2018 – 3 January 2019

(Not shown are positions for the first six hours of the voyage, when *Cramer* initially left Gallows Bay, Christiansted, St. Croix and sailed northeast towards 18° latitude.)



PRELIMINARY CRUISE REPORT - Cruise C-283B

U.S. Dept. of State CRUISE No.:	F2018-054
SHIP NAME:	SSV Corwith Cramer
OPERATING INSTITUTE OR AGENCY:	Sea Education Association
PROJECT TITLE:	SEA Cruise C-283B: Colleague Voyage
CRUISE DATES (INCLUSIVE):	6 January 2019 – 10 January 2019

CHIEF SCIENTIST:	
Name	Audrey Meyer
Affiliation	Sea Education Association
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E-mail	ameyer@sea.edu

CLEARANCE COUNTRIES:	United Kingdom (British Virgin Islands), U.S. Virgin Islands, U.S.A.
FOREIGN PARTICIPANTS:	Catherine Schaeff (Canada); James Jones (United Kingdom)

DESCRIPTION OF SCIENTIFIC PROGRAM (include page-sized chart showing cruise track):

The goals of the program were primarily educational – 15 academic colleagues from 13 different universities and colleges joined the SSV *Corwith Cramer* to learn about *SEA Semester* programs and to learn ocean sampling techniques and collect data for analysis. The research undertaken on this cruise was a study of the Caribbean Sea and North Atlantic waters in the regions of the U.S. Virgin Islands, British Virgin Islands, and Puerto Rico. To complete this study, we occupied seven oceanographic stations consisting of:

- 1. Water depth profiles (to 600m) of temperature, salinity, fluorescence, and dissolved oxygen using a CTD at two of the seven stations, with accompanying Niskin bottle samples at set depths for extracted chlorophyll-a and phosphate analyses.
- 2. Secchi disk measurements at two of the seven stations.
- 3. Surface Neuston zooplankton tows at four of the seven stations to look at species composition and density.
- 4. Drifted phytoplankton net samples at two of the seven stations.
- 5. Surface water samples at all seven stations for temperature, salinity, chlorophyll and colored dissolved organic matter (CDOM) fluorescence, and transmissivity, as well as extracted chlorophyll-a and phosphate analyses.

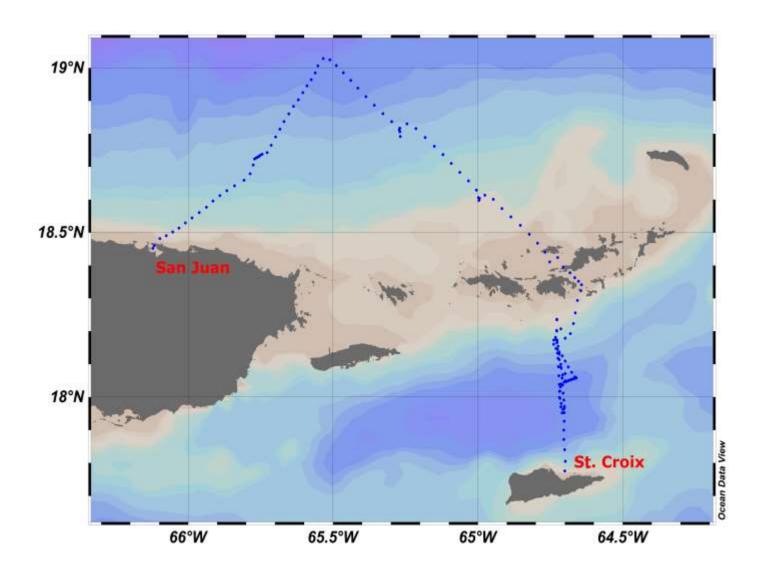
In addition, we collected the following continuous data sets during our voyage while underway:

- 1. ADCP measurements of ocean currents
- 2. CHIRP bottom profiles
- 3. Surface temperature, salinity, fluorescence, CDOM, turbidity, wind speed and direction.

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Data Description	Date of Expected Delivery to Dept. of State
Final cruise report and electronic access to archived data.	1 June 2019
Data summary, station locations	1 June 2019

CRUISE TRACK
Sea Education Association Cruise C-283B
Caribbean Sea between St. Croix, through the British Virgin Islands, to Puerto Rico
6 -10 January 2019



PRELIMINARY CRUISE REPORT - Cruise C-283C

U.S. Dept. of State CRUISE No.:	F2018-054
SHIP NAME:	SSV Corwith Cramer
OPERATING INSTITUTE OR AGENCY:	Sea Education Association
PROJECT TITLE:	SEA Cruise C-283C: Williams Mystic Voyage
CRUISE DATES (INCLUSIVE):	27 January 2019 – 6 February 2019

CHIEF SCIENTIST:	
Name	Lisa Gilbert
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E-mail	lgilbert@williams.edu

CLEARANCE COUNTRIES:	United Kingdom (British Virgin Islands), U.S. Virgin Islands, U.S.A.
FOREIGN PARTICIPANTS:	None

DESCRIPTION OF SCIENTIFIC PROGRAM (include page-sized chart showing cruise track):

The goals of the program were primarily educational – 20 students enrolled in the Williams Mystic Maritime Studies Program joined the Cramer to learn ocean sampling techniques and collect data for analysis. The research undertaken on this cruise was a study of the Caribbean Sea and North Atlantic waters in the regions of the U.S. Virgin Islands, British Virgin Islands, and Puerto Rico. To complete this study, we occupied 19 stations consisting of:

- 1. Water depth profiles (to 1850m) of temperature, salinity, fluorescence, and dissolved oxygen using a CTD at 3 of the 19 stations, with accompanying Niskin bottle samples at set depths for extracted chlorophyll-a, phosphate, and pH.
- 2. Meter net zooplankton tow (to 600m) at 1 of 19 stations to look at species composition and density.
- 3. Secchi disk measurements at 4 of the 19 stations.
- 4. Sediment collection using a Shipek grab at 4 of 19 stations.
- 5. Surface Neuston zooplankton tows at 7 of the 19 stations to look at species composition and density.
- 6. Drifted phytoplankton net samples at 4 of the 19 stations.
- 7. Surface water sample collection at 15 of 19 stations for measurement of fluorescence, pH, phosphate.

In addition, we collected the following continuous data sets:

- 1. ADCP measurements of ocean currents
- 2. CHIRP bottom profiles
- 3. Surface temperature, salinity, fluorescence, CDOM, turbidity, wind speed and direction.

SCHEDULE OF DATA DELIVERY:

Data Description	Date of Expected Delivery to Dept. of State
Final cruise report and electronic access to archived data.	1 June 2019
Data summary, station locations	1 June 2019

CRUISE TRACK
Sea Education Association Cruise C-283C
From Puerto Rico to St. Croix, U.S. Virgin Islands
27 January 2019 – 6 February 2019

