

BOILERPLATE

Job Code:.....100692BP

Position #: (PTAA).....(NE)

Developed by:.....MO

Reviewed by:.....DLJ

Approved by:.....LK

Date:..... 04/17; 08/17; 01/22

UNIVERSITY OF RHODE ISLAND

Position Description

TITLE: Marine Research Assistant I
DIVISION: Graduate School of Oceanography
REPORTS TO: Principal Investigator
GRADE: 1
SUPERVISES: N/A

BASIC FUNCTION:

Compile and analyze data from published literature, glider and float platforms, and assist with drafting a meta-analysis manuscript on oceanic primary production and carbon export.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Compile data from published work on global measurements of Net Community Production (NCP) and carbon export. Integrate these observations with similar data products from SeaWiFS, and MODIS Ocean Color satellites.

Create a numerical model in MATLAB that predicts the time-rate of change of the standing stock of particulate organic carbon in the surface ocean, driven by the compiled rates, and estimates derived from autonomous platforms.

Conduct calibrations of dissolved oxygen and carbon export from field deployments of autonomous underwater platforms.

Attend a course on glider piloting and operations offered through Teledyne Webb Research (funded by the PI).

OTHER DUTIES AND RESPONSIBILITIES:

Be familiar with MATLAB, ArcGIS (Geographic Information System) software and be able to perform basic MATLAB and GIS tasks.

Perform minor research work, including field sampling from research vessels under direct supervision of the Captain and/or Principal Investigator and processing of data from an underwater Slocum Glider. Analyze data from an Aanderaa oxygen optode and other bio-optical sensors on the Slocum glider. Conduct calibrations using the Winkler titration method and filtration for particulate organic material. Conduct calibrations following the methods described in “*Air calibration of an oxygen optode on an underwater glider*” (Nicholson et al. 2017). Analyze beam transmissometer data from a WireWalker and Lagrangian float platform following “*Carbon flux from bio-optical profiling floats: calibrating transmissometers for use as optical sediment traps*” (Estapa et al. 2017).

Perform additional duties as required.

LICENSES, TOOLS AND EQUIPMENT:

Personal computers, printers, word processing, database management, spreadsheet, MATLAB and GIS software.

ENVIRONMENTAL CONDITIONS:

This position is not substantially exposed to adverse environmental conditions.

QUALIFICATIONS:

REQUIRED: Bachelor's degree in geosciences; Demonstrated research experience; Demonstrated experience with oxygen optodes and beam transmissometers; Demonstrated evidence of training in Satellite Remote Sensing; Demonstrated familiarity with MATLAB and GIS (Geographic Information System) software; Demonstrated ability to perform MATLAB and GIS tasks; Demonstrated strong interpersonal and verbal communication skills; Demonstrated proficiency in written communications; and, Demonstrated ability to work with diverse groups/populations.

PREFERRED: Demonstrated experience with oxygen optodes and beam transmissometers (preferably from autonomous platforms, such as underwater gliders and/or Lagrangian floats.)

ALL REQUIREMENTS ARE SUBJECT TO POSSIBLE MODIFICATION TO REASONABLY ACCOMMODATE INDIVIDUALS WITH DISABILITIES.