**Cruise Report**

**Bivalve Larvae TRANSPORT Mapping Survey**

***Cruise***: BT-12-09

***Date***: July, 9, 2012

***Vessel***: *R/V Terrapin*

***Area of Operations***: Choptank River

***Scientific Personnel***: Jason Spires (Captain) Jake Goodwin, Tom Wazniak

***Weather***: Cloudy

***Objectives***:

The objectives of this cruise were to 1) Sample sites that would be used to guide efforts for our RV Sharp cruise the following day.

***Activities***:

2 stations were occupied where samples were successfully collected (Table 1). A list of station numbers, names and locations for the Transport program can be found in Table 2.

Overall, 2 CTD casts were made, 5 plankton samples were collected. Stations were sampled from the mouth of the river to upstream locations.

A CTD cast was made at each station, and the downcast was used to measure water properties. The CTD equipped with a fluorometer, OBS, dissolved oxygen and PAR sensors. Using hoses attached to the CTD frame, bivalve larvae were collected from near bottom to the surface by moving the CTD up through the water column in 0.5 m depth intervals at regularly spaced time intervals (e.g., every 20 s or every 60 s) depending upon the depth of the station. We estimated that our pumps (50 feet of hose, an in-line flow meter) was pumping at 10 gallons per minute. The water was pumped into a 55-gallon drum half filled with water (to minimize damage to the samples) and through a 64 μm mesh net to collect bivalve larvae. Samples were concentrated and washed with seawater into jars containing 4% buffered formaldehyde.

***Summary***:

Cruise BT-12-09 was successful. C. virginica larvae were found at both station 02 and station 6.

Table 1. Station numbers, names and locations for the TRANSPORT program.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **station** | **Latitude** | **Longitude** | **Decimal Lat** | **Decimal Lon** | **Location** |
| 02\* | 38º 39' 00" N | 076º 16' 29" W | 38.6501 | -76.2747 | near buoy R12 |
| 06 | 38º 38' 24" N | 076º 11' 51" W | 38.6400 | -76.1974 | Castle Haven Pt |
|  |  |  |  |  |  |
|  |  |  |  |  |  |