CATALOG DOCUMENTATION
EMAP SURFACE WATERS PROGRAM LEVEL DATABASE
1997–1998 Mid-Atlantic Integrated Assessment Program
Sediment Toxicity Data

TABLE OF CONTENTS
1. DATA SET IDENTIFICATION
2. INVESTIGATOR INFORMATION
3. DATA SET ABSTRACT
4. OBJECTIVES AND INTRODUCTION
5. DATA ACQUISITION AND PROCESSING METHODS
6. DATA MANIPULATIONS
7. DATA DESCRIPTION
8. GEOGRAPHIC AND SPATIAL INFORMATION
9. QUALITY CONTROL / QUALITY ASSURANCE
10. DATA ACCESS
11. REFERENCES
12. TABLE OF ACRONYMS
13. PERSONNEL INFORMATION

1. DATA SET IDENTIFICATION

1.1 Title of Catalog Document
1997–1998 Mid-Atlantic Integrated Assessment Program
Sediment Toxicity Data

1.2 Authors of the Catalog Entry
U.S. EPA NHEERL Western Ecology Division
Corvallis, OR

1.3 Catalog Revision Date
August 2000

1.4 Data Set Name
SEDTOX

1.5 Task Group
Surface Waters

1.6 Data Set Identification Code
142

1.7 Version
001

1.8 Requested Acknowledgement
These data were produced as part of the U.S. EPA’s Environmental Monitoring
and Assessment Program (EMAP). If you publish these data or use them for
analyses in publication, EPA requires a standard statement for work it has
supported:
Although the data described in this article have been funded wholly or in part by the U.S. Environmental Protection Agency through its EMAP Surface Waters Program, it has not been subjected to Agency review, and therefore does not necessarily reflect the views of the Agency and no official endorsement of the conclusions should be inferred.

2. INVESTIGATOR INFORMATION

2.1 Principal Investigator
Dr. John Stoddard
U.S. Environmental Protection Agency
NHEERL Western Ecology Division
200 S.W. 35th Street
Corvallis, OR 97333

2.2 Investigation Participants – Sample Collection
Oregon State University
State of West Virginia
State of Maryland
University of Maryland
U.S. Environmental Protection Agency
Office of Research and Development
Region III

3. DATA SET ABSTRACT

3.1 Abstract of the Data Set
The data set contains the results of sediment toxicity assessments.

3.2 Keywords for the Data Set
sediment, toxicity, Hyalella azteca, specific respiration, sediment metabolism

4. OBJECTIVES AND INTRODUCTION

4.1 Program Objective
In 1997 and 1998 the Ecological Monitoring and Assessment Program (EMAP) Surface Waters Program became a collaborator in the Mid-Atlantic Integrated Assessment (MAIA) project, which is attempting to produce an assessment of the condition of surface water and estuarine resources. The MAIA project represents a follow-up to the MAHA study, with an expanded geographic scope (southern New York to northern North Carolina, with more sites located in the Piedmont and Coastal Plain regions) and a different index period (July–September).

4.2 Data Set Objective
This data set is part of the MAIA project to characterize spatial and temporal variability of ecological indicators and demonstrate the ability of a suite of ecological indicators to estimate the condition of regional populations of aquatic resources.

4.3 Data Set Background Discussion
The primary function of the sedtox data set is to provide an assessment of the contaminant levels in the sampled streams. Tests used the freshwater amphipod Hyalella azteca to determine toxicity. These measurements will allow tracking of trends in stream water quality.
Sediment toxicity testing is used to evaluate the contaminant levels of freshwater harbors and rivers, as well as estuaries, marine bays, and marshlands. The procedure used the freshwater amphipod Hyalella azteca to determine the status of sediment contamination in the sampled stream. Sediment toxicity can also be used to indicate the effects on non-contaminant stressors such as physical habitat degradation. The survival in each sample is determined at the end of the test and compared to survival in a test using a "reference" sediment.

4.4 Summary of Data Set Parameters
Survival and growth of Hyalella azteca at 7 and 10 days.

5. DATA ACQUISITION AND PROCESSING METHODS

5.1 Data Acquisition

5.1.1 Sampling Objective
To obtain estimates of sediment toxicity at the sample site.

5.1.2 Sample Collection Methods Summary
Sediment was mixed well and at least 1 L placed into the labeled plastic bag. Bag sealed after squeezing out the air, then placed inside another bag and sealed. Sample stored cool until shipped. See Lazorchak et. al (1998).

5.1.3 Sampling Start Date
May 1997

5.1.4 Sampling End Date
September 1998

5.1.5 Platform
NA

5.1.6 Sampling Gear

5.1.7 Manufacturer of Instruments
NA

5.1.8 Key Variables
NA

5.1.9 Sampling Method Calibration
NA

5.1.10 Sample Collection Quality Control

5.1.11 Sample Collection Method Reference
5.1.12 Sample Collection Method Deviations
NA

5.2 Data Preparation and Sample Design

5.2.1 Sample Processing Objective

5.2.2 Sample Processing Methods Summary

5.2.3 Sample Processing Method Calibration

5.2.4 Sample Processing Quality Control

5.2.5 Sample Processing Method Reference

6. DATA MANIPULATIONS

6.1 Name of New or Modified Values
None

6.2 Data Manipulation Description

7. DATA DESCRIPTION

7.1 Description of Parameters

<table>
<thead>
<tr>
<th>Parameter Data</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAS Name</td>
<td>Type</td>
</tr>
<tr>
<td>DATE_COL</td>
<td>Num</td>
</tr>
<tr>
<td>DATE_TST</td>
<td>Num</td>
</tr>
<tr>
<td>HYALCV7</td>
<td>Num</td>
</tr>
<tr>
<td>HYALCV10</td>
<td>Num</td>
</tr>
<tr>
<td>HYALWT7</td>
<td>Num</td>
</tr>
<tr>
<td>HYALWT10</td>
<td>Num</td>
</tr>
<tr>
<td>LAT_DD</td>
<td>Num</td>
</tr>
<tr>
<td>LON_DD</td>
<td>Num</td>
</tr>
<tr>
<td>SAMPLED</td>
<td>Char</td>
</tr>
<tr>
<td>SAMP_ID</td>
<td>Num</td>
</tr>
<tr>
<td>STRM_ID</td>
<td>Char</td>
</tr>
<tr>
<td>SURVCV7</td>
<td>Num</td>
</tr>
<tr>
<td>SURVCV10</td>
<td>Num</td>
</tr>
<tr>
<td>SURVPC7</td>
<td>Num</td>
</tr>
<tr>
<td>SURVPC10</td>
<td>Num</td>
</tr>
</tbody>
</table>
7.1 Description of Parameters, continued

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE_COL</td>
<td>05/20/1997</td>
</tr>
<tr>
<td>DATE_TST</td>
<td>13677</td>
</tr>
<tr>
<td>HYALCV10</td>
<td>2.7</td>
</tr>
<tr>
<td>HYALCV7</td>
<td>1.78</td>
</tr>
<tr>
<td>HYALWT10</td>
<td>0.071</td>
</tr>
<tr>
<td>HYALWT7</td>
<td>0.019</td>
</tr>
<tr>
<td>LAT_DD</td>
<td>35.182938</td>
</tr>
<tr>
<td>LON_DD</td>
<td>-83.555659</td>
</tr>
<tr>
<td>SAMP_ID</td>
<td>225052</td>
</tr>
<tr>
<td>SURVCV10</td>
<td>0</td>
</tr>
<tr>
<td>SURVCV7</td>
<td>0</td>
</tr>
<tr>
<td>SURVPC10</td>
<td>65</td>
</tr>
<tr>
<td>SURVPC7</td>
<td>0</td>
</tr>
<tr>
<td>VISIT_NO</td>
<td>0</td>
</tr>
<tr>
<td>YEAR</td>
<td>1997</td>
</tr>
</tbody>
</table>

7.1.7 Minimum Value in Data Set

7.1.7 Maximum Value in Data Set

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE_COL</td>
<td>09/30/1998</td>
</tr>
<tr>
<td>DATE_TST</td>
<td>14168</td>
</tr>
<tr>
<td>HYALCV10</td>
<td>51.9</td>
</tr>
<tr>
<td>HYALCV7</td>
<td>228.06</td>
</tr>
<tr>
<td>HYALWT10</td>
<td>0.253</td>
</tr>
<tr>
<td>HYALWT7</td>
<td>9.6</td>
</tr>
<tr>
<td>LAT_DD</td>
<td>42.567163</td>
</tr>
<tr>
<td>LON_DD</td>
<td>-74.688136</td>
</tr>
<tr>
<td>SAMP_ID</td>
<td>250610</td>
</tr>
<tr>
<td>SURVCV10</td>
<td>33.85</td>
</tr>
<tr>
<td>SURVCV7</td>
<td>200</td>
</tr>
<tr>
<td>SURVPC10</td>
<td>100</td>
</tr>
<tr>
<td>SURVPC7</td>
<td>112.5</td>
</tr>
<tr>
<td>VISIT_NO</td>
<td>3</td>
</tr>
<tr>
<td>YEAR</td>
<td>1998</td>
</tr>
</tbody>
</table>

7.2.1 Column Names for Example Records

"DATE_COL","DATE_TST","HYALCV10","HYALCV7","HYALWT10","HYALWT7","LAT_DD","LON_DD","SAMPLED","SAMP_ID","STRM_ID","SURVCV10","SURVCV7","SURVPC10","SURVPC7","VISIT_NO","YEAR"
7.2.2 Example Data Records

```
,06/12/97, 32.3, 0.059, "ContPS", 5.4, 75,
,08/01/97, 48.3, 0.077, "ContPS", 9.9, 87.5,
,08/12/97, 9.5, 0.06, "ContPS", 11.8, 85,
,08/15/97, 10.4, 0.059, "ContPS", 18.2, 81.25,
,08/26/97, 14.3, 0.061, "ContPS", 17.1, 77.5,
```

8. GEOGRAPHIC AND SPATIAL INFORMATION

8.1 Minimum Longitude
   -83 Degrees 33 Minutes 20 Seconds West (-83.555659 Decimal Degrees)

8.2 Maximum Longitude
   -74 Degrees 41 Minutes 17 Seconds West (-74.688136 Decimal Degrees)

8.3 Minimum Latitude
   35 Degrees 10 Minutes 58 Seconds North (35.182938 Decimal Degrees)

8.4 Maximum Latitude
   42 Degrees 34 Minutes 1 Seconds North (42.567163 Decimal Degrees)

8.5 Name of Area or Region
   Mid Atlantic: EPA Region III which includes Delaware, Maryland, New York, Virginia, and West Virginia

9. QUALITY CONTROL / QUALITY ASSURANCE

9.1 Data Quality Objectives

9.2 Quality Assurance Procedures

9.3 Unassessed Errors
   NA

10. DATA ACCESS

10.1 Data Access Procedures

10.2 Data Access Restrictions

10.3 Data Access Contact Persons

10.4 Data Set Format

10.5 Information Concerning Anonymous FTP

10.6 Information Concerning WWW

10.7 EMAP CD-ROM Containing the Data
11. REFERENCES


12. TABLE OF ACRONYMS

13. PERSONNEL INFORMATION

Project Manager
Dr. John Stoddard
U.S. Environmental Protection Agency
NHEERL Western Ecology Division
200 S.W. 35th Street
Corvallis, OR 97333
541-754-4441
541-754-4716 (FAX)
stoddard.john@epa.gov

Quality Assurance Officer
Dave Peck
U.S. Environmental Protection Agency
NHEERL Western Ecology Division
200 S.W. 35th Street
Corvallis, OR 97333
541-754-4426
541-754-4716 (FAX)
peck.david@epa.gov

Information Management, EMAP–Surface Waters
Marlys Cappaert
OAO c/o U.S. Environmental Protection Agency
NHEERL Western Ecology Division
200 S.W. 35th Street
Corvallis, OR 97333
541-754-4467
541-754-4716 (FAX)
cappaert.marlys@epa.gov