1. DATA SET IDENTIFICATION

1.1 Title of Catalog Document
1997-1998 Mid-Atlantic Integrated Assessment Program
Periphyton Diatom Counts 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
PERIDCNT

1.5 Task Group
Surface Waters

1.6 Data Set Identification Code
144

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 diatoms counts from samples collected from erosional and depositional habitats located at each of nine interior cross-section transects. Counts for each diatom species are represented as both raw laboratory counts and counts per area sampled.

3.2 Keywords for the Data Set
algae, bacteria, count, organic matter, periphyton, protozoa

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 peripcnt data set is to provide a count of the periphyton species present in the stream at the time of sampling. Periphyton represents an integral component of stream biological integrity.

Periphyton is algae, fungi, bacteria, protozoa, and associated organic matter associated with channel substrates. Periphyton are useful indicators of environmental condition because they respond rapidly and are sensitive to a number of anthropogenic disturbances, including habitat destruction, contamination by nutrients, metals, herbicides, hydrocarbons, and acidification.

4.4 Summary of Data Set Parameters
Counts for each diatom species are represented as both raw laboratory counts and counts per area sampled. Flow type at sample point is also indicated.

5. DATA ACQUISITION AND PROCESSING METHODS

5.1 Data Acquisition

5.1.1 Sampling Objective
To obtain counts of periphyton species at the sample site.

5.1.2 Sample Collection Methods Summary
Periphyton samples were collected from erosional and depositional habitats located at each of nine interior cross-section transects (transects "B" through "J") established within the sampling reach, according to the protocols outlined in 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
Plastic funnel, 500ml plastic bottles, stiff-bristled toothbrush, 60-ml syringe, and a wash bottle.

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>----------------</td>
<td>-----------</td>
</tr>
<tr>
<td>CNT_AREA</td>
<td>Num</td>
</tr>
<tr>
<td>COMMENT</td>
<td>Char</td>
</tr>
<tr>
<td>DATE_COL</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>RAWCNT</td>
<td>Num</td>
</tr>
<tr>
<td>SAMPLED</td>
<td>Char</td>
</tr>
<tr>
<td>SAMPTYPE</td>
<td>Char</td>
</tr>
<tr>
<td>SAMP_ID</td>
<td>Num</td>
</tr>
<tr>
<td>SITE_ID</td>
<td>Char</td>
</tr>
</tbody>
</table>
7.1 Description of Parameters, continued

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Type</th>
<th>Length</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAXACODE</td>
<td>Char</td>
<td>9</td>
<td>Unique Species ID</td>
</tr>
<tr>
<td>TAXON</td>
<td>Char</td>
<td>100</td>
<td>Latin Designation</td>
</tr>
<tr>
<td>VISIT_NO</td>
<td>Num</td>
<td>8</td>
<td>Within Year Site Visit Number</td>
</tr>
<tr>
<td>YEAR</td>
<td>Num</td>
<td>8</td>
<td>Year of Site Visit</td>
</tr>
</tbody>
</table>

7.1.6 Precision to which values are reported

7.1.7 Minimum Value in Data Set

<table>
<thead>
<tr>
<th>Name</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNT_AREA</td>
<td>0</td>
</tr>
<tr>
<td>DATE_COL</td>
<td>05/20/1997</td>
</tr>
<tr>
<td>LAT_DD</td>
<td>35.182938</td>
</tr>
<tr>
<td>LON_DD</td>
<td>-83.555659</td>
</tr>
<tr>
<td>RAWCNT</td>
<td>0</td>
</tr>
<tr>
<td>SAMP_ID</td>
<td>222222</td>
</tr>
<tr>
<td>VISIT_NO</td>
<td>0</td>
</tr>
<tr>
<td>YEAR</td>
<td>1997</td>
</tr>
</tbody>
</table>

7.1.7 Maximum Value in Data Set

<table>
<thead>
<tr>
<th>Name</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNT_AREA</td>
<td>26306878.307</td>
</tr>
<tr>
<td>DATE_COL</td>
<td>09/30/1998</td>
</tr>
<tr>
<td>LAT_DD</td>
<td>42.600349</td>
</tr>
<tr>
<td>LON_DD</td>
<td>-74.662034</td>
</tr>
<tr>
<td>RAWCNT</td>
<td>821</td>
</tr>
<tr>
<td>SAMP_ID</td>
<td>999999</td>
</tr>
<tr>
<td>VISIT_NO</td>
<td>3</td>
</tr>
<tr>
<td>YEAR</td>
<td>1998</td>
</tr>
</tbody>
</table>

7.2 Data Record Example

7.2.1 Column Names for Example Records

"CNT_AREA", "COMMENT", "DATE_COL", "LAT_DD", "LON_DD", "RAWCNT", "SAMPLED", "SAMTYPE", "SAMP_ID", "SITE_ID", "TAXACODE", "TAXON", "VISIT_NO", "YEAR"

7.2.2 Example Data Records


8. GEOGRAPHIC AND SPATIAL INFORMATION

8.1 Minimum Longitude
-84 Degrees 26 Minutes 39 Seconds West (-83.555659 Decimal Degrees)

8.2 Maximum Longitude
-75 Degrees 20 Minutes 16 Seconds West (-74.662034 Decimal Degrees)

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

8.4 Maximum Latitude
42 Degrees 36 Minutes 1 Seconds North (42.600349 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
CSC 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