

US EPA ARCHIVE DOCUMENT

CATALOG DOCUMENTATION
EMAP SURFACE WATERS PROGRAM LEVEL DATABASE
1997-1998 Mid-Atlantic Integrated Assessment Program
Rapid Habitat Data

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1. DATA SET IDENTIFICATION

1.1 Title of Catalog Document

1997-1998 Mid-Atlantic Integrated Assessment Program
Rapid Habitat Data

1.2 Authors of the Catalog Entry

U.S. EPA NHEERL Western Ecology Division
Corvallis, OR

1.3 Catalog Revision Date

July 2002

1.4 Data Set Name

RAPIDHAB

1.5 Task Group

Surface Waters

1.6 Data Set Identification Code

146

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

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2.2 Investigation Participants - Sample Collection

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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 rapid habitat visual assessments.

3.2 Keywords for the Data Set

bank condition, sinuosity, channel, riparian, vegetation, stream velocity

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 rapid habitat data set is to provide visual-based habitat assessment of the stream reach and make a general visual assessment of the stream and adjacent area.

4.4 Summary of Data Set Parameters

Substrates, stream velocity regimes, sediments, channel condition, riparian vegetation

5. DATA ACQUISITION AND PROCESSING METHODS

5.1 Data Acquisition

5.1.1 Sampling Objective

To provide the field team's observations of catchment and stream characteristics that are useful for data validation, future data interpretation, ecological value assessment, development of associations, and verification of stressor data.

5.1.2 Sample Collection Methods Summary

Data were collected according to the Rapid Habitat and Visual Stream Assessments section in Surface Waters Field Operations Manual.

Lazorchak, J.M., Klemm, D.J., and Peck D.V. (editors). 1998. Environmental Monitoring and Assessment Program- Surface Waters: Field Operations and Methods for Measuring the Ecological Condition of Wadeable Streams. EPA/620/R-94/004F. U.S. Environmental Protection Agency, Washington, D.C.

5.1.3 Sampling Start Date

July 1997

5.1.4 Sampling End Date

September 1998

5.1.5 Platform

NA

5.1.6 Sampling Gear

NA

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

NA

5.1.11 Sample Collection Method Reference

NA

5.1.12 Sample Collection Method Deviations

NA

5.2 DATA PREPARATION AND SAMPLE DESIGN

5.2.1 Sample Processing Objective

NA

5.2.2 Sample Processing Methods Summary

NA

5.2.3 Sample Processing Method Calibration

NA

5.2.4 Sample Processing Quality Control

NA

5.2.5 Sample Processing Method Reference

NA

6. DATA MANIPULATIONS

6.1 Name of New or Modified Values

None

6.2 Data Manipulation Description

See Chaloud and Peck (1994).

7. DATA DESCRIPTION

7.1 Description of Parameters

#	Parameter SAS Name	Data Type	Len	Format	Parameter Label
4	FOO	Char	10		Stream ID
23	LAT_DD	Num	8		X-Site Latitude (decimal degrees)
24	LON_DD	Num	8		X-Site Longitude (decimal degrees)
5	RHNOMET	Num	8		Number of all nonmissing scores
22	RH_BKVG	Num	8		Bank protective vegetation score
8	RH_CHALT	Num	8		Lack of channel alteration score
11	RH_CHBKC	Num	8		Condition of banks score
9	RH_CHQST	Num	8		Channel flow status score
10	RH_CHSIN	Num	8		Channel sinuosity score
12	RH_EMB	Num	8		Gravel not buried by fines score
13	RH_EPISB	Num	8		Epifaunal substrate score
14	RH_FQRIF	Num	8		Riffle frequency score
15	RH_GRAZ	Num	8		Lack of vegetative grazing distrib. score
16	RH_INCVR	Num	8		Instream cover score
17	RH_POLSB	Num	8		Pool substrate characterization score
18	RH_POLVR	Num	8		Pool variability score
19	RH_RIPVG	Num	8		Width of riparian vegetation zone score
20	RH_SEDDP	Num	8		Lack of sediment deposition
6	RH_SUM	Num	8		PBP Habitat Score -- Sum

7.1 Description of Parameters (con't)

21	RH_VELOD	Num	8	Diversity of vel./depth regimes score
7	RH_XHAB	Num	8	PBP Habitat Score -- Mean
1	SITE_ID	Char	15	Site identification code
3	VISIT_NO	Num	8	Visit Number
2	YEAR	Num	8	Year of Site Visit

7.1.6 Precision to which values are reported

7.1.7 Minimum Value in Data Set

Name	Min
LAT_DD	36.5535
LON_DD	-83.24443889
RHNOMET	0
RH_BKVG	0
RH_CHALT	0
RH_CHBKC	1
RH_CHQST	0
RH_CHSIN	3
RH_EMB	0
RH_EPISB	0
RH_FQRIF	0
RH_GRAZ	0
RH_INCVR	0
RH_POLSB	0
RH_POLVR	2
RH_RIPVG	0
RH_SEDDP	0
RH_SUM	0
RH_VELOD	0
RH_XHAB	2
VISIT_NO	1
YEAR	1993

7.1.7 Maximum Value in Data Set

Name	Max
LAT_DD	42.355663889
LON_DD	-74.2589
RHNOMET	12
RH_BKVG	20
RH_CHALT	20
RH_CHBKC	20
RH_CHQST	20
RH_CHSIN	19
RH_EMB	20
RH_EPISB	20
RH_FQRIF	20
RH_GRAZ	20

7.1.7 Maximum Value in Data Set (con't)

RH_INCVR	20
RH_POLSB	18
RH_POLVR	20
RH_RIPVG	20
RH_SEDDP	20
RH_SUM	235
RH_VELOD	20
RH_XHAB	19.5833
VISIT_NO	2
YEAR	1994

7.2 Data Record Example

7.2.1 Column Names for Example Records

"FOO", "LAT_DD", "LON_DD", "RHNOMET", "RH_BKVG", "RH_CHALT", "RH_CHBKC", "RH_CHQST", "RH_CHSIN", "RH_EMB", "RH_EPISB", "RH_FORIF", "RH_GRAZ", "RH_INCVR", "RH_POLSB", "RH_POLVR", "RH_RIPVG", "RH_SEDDP", "RH_SUM", "RH_VELOD", "RH_XHAB", "SITE_ID", "VISIT_NO", "YEAR"

7.2.2 Example Data Records

"MAIA97-001", 38.247943, -81.886602, 12, 19, 19, 18, 14, 15, ., 18, ., 19, 18, 18, 9, 18, 19, 204, ., 17, "MAIA97-001", 1, 1997
 "MAIA97-002", 38.550017, -82.144807, 12, 19, 20, 14, 10, 19, ., 15, ., 19, 18, 17, 18, 14, 10, 193, ., 16.083333333, "MAIA97-002", 1, 1997
 "MAIA97-005", 38.558859, -80.666924, 12, 20, 20, 13, 7, ., 16, 19, 20, 20, 18, ., ., 20, 16, 203, 14, 16.916666667, "MAIA97-005", 1, 1997
 "MAIA97-007", 38.398744, -81.657252, 12, 15, 13, 9, 13, 5, ., 4, ., 2, 5, 7, 12, 3, 9, 97, ., 8.083333333, "MAIA97-007", 1, 1997
 "MAIA97-008", 39.253979, -81.616032, 12, 16, 7, 11, 14, 6, ., 11, ., 7, 5, 13, 3, 5, 13, 111, ., 9.25, "MAIA97-008", 1, 1997

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

See Chaloud and Peck (1994).

9.2 Quality Assurance Procedures

See Chaloud and Peck (1994).

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

Chaloud, D.J. and D.V. Peck. 1994. Environmental Monitoring and Assessment Program: Integrated Quality Assurance Project Plan for the Surface Waters Resource Group, 1994 Activities. EPA 600/X-91/080, Rev. 2.00 U.S. Environmental Protection Agency, Las Vegas, Nevada.

Lazorchak, J.M., Klemm, D.J., and Peck D.V. (editors). 1998. Environmental Monitoring and Assessment Program- Surface Waters: Field Operations and Methods for Measuring the Ecological Condition of Wadeable Streams. EPA/620/R-94/004F. U.S. Environmental Protection Agency, Washington, D.C.

12. TABLE OF ACRONYMS

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