CATALOG DOCUMENTATION
NATIONAL COASTAL ASSESSMENT DATABASE
NORTHEAST REGION 2000-2002
STATION LOCATION AND VISIT INFORMATION

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1. DATASET IDENTIFICATION

1.1 Title of Catalog document

National Coastal Assessment Database
Northeast Region 2000-2002
Station Location and Sampling Visit Information

1.2 Authors of the Catalog entry

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1.3 Catalog revision date

August 2007

1.4 Dataset names

Station Location and Sampling Visit Information

1.5 Task Group

National Coastal Assessment-Northeast

1.6 Dataset identification codes

001, 002

1.7 Version

001

1.8 Request for Acknowledgment

EMAP requests that all individuals who download EMAP data acknowledge the source of these data in any reports, papers, or presentations. If you publish these data, please include a statement similar to: "Some or all of the data described in this article were produced by the U. S. Environmental Protection Agency through its Environmental Monitoring and Assessment Program (EMAP)".

2. INVESTIGATOR INFORMATION (for full addresses see Section 13)

2.1 Principal Investigators

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2.3 Sample Processing Investigators
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3. DATASET ABSTRACT

3.1 Abstract of the Dataset

The Station Location and Sampling Visit data sets report information regarding stations sampled during 2000-02 in the National Coastal Assessment in the Northeast Region. Each record reports the planned location of the station (latitude and longitude); various descriptions of the jurisdiction of the station's location (name of state, stratum, and estuary containing the station); identification of the cooperative responsible for sampling; and the area represented by the station. The water column depth at the time of sampling is reported, as well as the number of visits to a station.

3.2 Keywords for the Dataset

Latitude, longitude, estuary name, state, project, stratum, area, depth

4. OBJECTIVES AND INTRODUCTION

4.1 Program Objective

The National Coastal Assessment (NCA) is a national monitoring and assessment program with the primary goal of providing a consistent evaluation of the estuarine condition in U.S. estuaries. It is an initiative of the Environmental Monitoring and Assessment Program (EMAP), and is a partnership of several federal and state environmental agencies, including: EPA's Regions, Office of Research and Development, and Office of Water; state environmental protection agencies in the 24 marine coastal states and Puerto Rico; and the United States Geological Survey (USGS) and the National Oceanic and Atmospheric Agency (NOAA). The five-year NCA program was initiated in 2000.

Stations were randomly selected using EMAP's probabilistic sampling framework and were sampled once during a summer index period (June to October). A consistent suite of indicators was used to measure conditions in the water, sediment, and in benthic and fish communities. The measured data may be used by the states to meet their reporting requirements under the Clean Water Act, Section 305(b). The data will also be used to generate a series of national reports characterizing the condition of the Nation's estuaries.

4.2 Dataset Objective

To report information about station locations, visits and weighting factors used during data analysis.

4.3 Dataset Background Discussion

The station locations presented in this datafile are the planned latitude and longitude values designated by program designers. The actual latitudes and longitudes may differ slightly from the planned values.

State-cooperative agencies were responsible for the administration of the NCA program in the Northeast. Generally, the jurisdiction of the cooperatives reflect state boundaries; however, in several incidences, a state-cooperative sampled stations in a neighboring state's waters (see table below). Station Ids reflect the station's location, rather than the cooperative's identity. All stations located within a state's boundaries are identified by State.

State	Coooperative	Organizations sampling
ME	Maine	Casco Bay Project/U of Southern Maine
NH	New Hampshire	Jackson Estuarine Lab/UNH
MA	Massachusetts	MA Coastal Zone Mgt. (2000-01) U. of Massachusetts/Boston, Dartmouth (2000-01)
MA-FSH	Massachusetts Fish	Mass. Marine Fisheries (2000)
RI	Rhode Island	Roger Williams University (2000) University of Rhode Island (2001-02)
RI-FSH	Rhode Island Fish Survey	Roger Williams University (2000)
CT	Connecticut	Connecticut DEP
CT-FSH	Connecticut Fish Survey	Connecticut DEP
NY	New York	MSRC, Stonybrook University Suffolk County Dep. Health Services NYC DEP Town of Hempstead
NJ-DB	New Jersey-Delaware Bay	New Jersey Marine Sciences Consortium
NJ-C	New Jersey Coast	New Jersey Marine Sciences Consortium
DE	Delaware Inland Bays	Delaware DNR

A two-year sampling design was employed for 2000-2001 NCA program in the Northeast. Analysts may therefore wish to consider the two years of data together. NCA and State planners divided Northeast estuaries into 24 "strata" based on watershed boundaries and state jurisdiction (see table below). Each stratum was overlain by an imaginary grid of hexagons for the purpose of selecting stations. A primary station location and two alternate locations were selected at random in the water portion of each hex (alternate sites were specified in case the original location could not be sampled). On average, each stratum contains about 25 hexes (stations). By design, stations within a stratum were grouped with respect to state-cooperative boundaries. The area of the water in a hex is reported for each station for use as a weighting factor during analysis.

The stratification scheme described above is useful when performing regional analyses involving the estuarine systems, but may be less convenient for states wishing to evaluate the condition of waters solely within state boundaries. This is so because a single stratum may fall across state lines. For instance, the Narragansett Bay stratum has stations in both Rhode Island and Massachusetts.

A suffix indicates whether the station location was the original site, first alternate, or second alternate by -A, -B, or -C, respectively. The user may wish to adjust the magnitude of the weighting factor (station areas) based on this value, for example, by multiplying the weighting factor by 0.5 or 0.33 if sampling crews had to sample at the first or second alternate location, respectively. Such an adjustment reflects the fact that the station did not represent the entire area originally assigned to the station.

2002

Stations are grouped into strata based on watershed boundaries, state jurisdiction, or physical property such as depth. ST_AREA is the area (km2) of the stratum. The STRATA are generally organized to reflect water body boundaries and may therefore contain stations falling in more than one state.

Stations are selected at random within a stratum according to a multi-year sampling design and are assigned a station weight (AREA) equal to the area (km2) represented by the station. For a particular sampling design, the sum of the AREA values for a stratum is equal to the stratum area ST_AREA.

Massachusetts did not participate in the NCA program in 2002. Rhode Island conducted fish trawls only in 2002, and collected physical water parameters in conjunction with the trawls. Connecticut collected all parameters, but at an abbreviated group of in-shore stations (stations in the Long Island Sound intended for sampling in 2002 were sampled in 2003).

4.4 Summary of Dataset Parameters

Station Location and Sampling Visit data set values were based on values assigned to the station and other observations recorded at the time of the visit.

5. DATA ACQUISITION AND PROCESSING METHODS

5.1 Data Acquisition / Field Sampling

Data in this data file were not acquired in the field or in laboratories; rather values were assigned by NCA program planners.

5.1.1 Sampling Objective

Record station location and sampling visit information during station visits in Northeastern U.S. estuaries during the 2000-02 NCA program.

5.1.2 Sample Collection: Methods Summary

Not applicable

5.1.3 Beginning Sampling Dates

7 July 2000
25 June 2001
2 May 2002

5.1.4 Ending Sampling Dates

20 October 2000
31 October 2001
31 October 2002

5.2 Data Preparation and Sample Processing

No analytical processing was involved with the Station Location and Sampling Visit data

6. DATA ANALYSIS AND MANIPULATIONS

6.1 Name of New or Modified Values

Not applicable

6.2 Description of Data Manipulation

Not applicable

7. DATA DESCRIPTION

7.1 Description of Parameters

7.1.1 Data Sets

7.1.1.1 Sampling Visit

Attribute Name	Format	Description
Data Group	VARCHAR2(4)	Data group conducting sampling
Sampling Year	NUMBER(4.0)	Year during which data were collected
Station Name	VARCHAR2(20)	The station identifier
Sampling Collection Date	DATE	Date of sample collection
Visit Number	NUMBER(2.0)	Number of visit to this station
Station Depth	NUMBER(5.1)	Water depth at time of sampling
Depth Units	VARCHAR2(15)	Units of depth

7.1.1.2 Station Location

Attribute Name	Format	Description
Province	VARCHAR2(4)	Large biogeographic area of sampling
Resource Name	VARCHAR2(20)	Program conducting sampling
Data Group	VARCHAR2(4)	Data group conducting sampling
Sampling Year	NUMBER(4.0)	Year during which data were collected
EPA Region	VARCHAR2(2)	EPA region code of station location
State	VARCHAR2(2)	Code for state
Water Body System	VARCHAR2(6)	Large water body of station location
Estuary Name	VARCHAR2(50)	Small water body where station located
Station Name	VARCHAR2(20)	The station identifier
Latitude Decimal Degrees	NUMBER(9.3)	Decimal degrees (datum NAD83)
Longitude Decimal Degrees	NUMBER(9.3)	Decimal degrees (-)(datum NAD83)
Station Statistical Area	NUMBER(7.2)	Statistical area (sq. km.) of station
Water Body Strata	VARCHAR2(6)	Design Strata: Depositional area
Sample Collection Code	VARCHAR2(18)	Station class-determines sampling regime
EMAP Station Name	VARCHAR2(20)	EMAP station name
EMAP River Segment	VARCHAR2(20)	EMAP river segment number (SPUNIT)
Local Station Name	VARCHAR2(20)	Local station name

7.1.2 Precision of Reported Values

Latitude and Longitude are reported to 0.0001 decimal degree units.
Statistical Area is reported to three significant digits.

7.1.3 Minimum Value in Dataset

Name	Min
Latitude	38.452
Longitude	-75.774
Statistical Area	0.001
Station Depth	0.2

7.1.4 Maximum Value in Dataset

Name	Max
Latitude	45.1339
Longitude	-66.956
Statistical Area	457
Station Depth	73.4

7.2 Data Record Example

7.2.1 Column Names for Example Records

7.2.1.1 Station Locations

Province,Resource Name,Data Group,Sampling Year,EPA Region,State,
Water Body System,Estuary Name,Station Name,Latitude Decimal Degrees,
Longitude Decimal Degrees,Station Statistical Area,Water Body Strata,
Station Class,EMAP River Segment,Local Station Name

7.2.1.2 Sampling Visits

Data Group,Sampling Year,Station Name,Sampling Collection Date,
Latitude Decimal Degrees,Longitude Decimal Degrees,Visit Number,
Station Depth, Depth Units

7.2.2 Example Data Records

7.2.2.1 Station Locations

Virginian,NCA-NE,National Coastal Assessment-Northeast/Connecticut,
2000,1,CT,Long Island Sound,Connecticut Ponds,CT00-0001-A,41.151,
-73.22, 1.13,Connecticut Coastal,Base Sampling Site,21A
Virginian,NCA-NE,National Coastal Assessment-Northeast/Connecticut,
2000,1,CT,Long Island Sound,Housatonic River,CT00-0003-A,41.288,-73.071,
3.26,Connecticut Coastal,Base Sampling Site,23A
Virginian,NCA-NE,National Coastal Assessment-Northeast/Connecticut,
2000,1,CT,Long Island Sound,Connecticut River,CT00-0005-A,41.274,-72.327,
0.06,Connecticut Coastal,Base Sampling Site,25A

7.2.2.2 Sampling Visits

National Coastal Assessment-Northeast/Connecticut,2000,CT00-0001-A,
17-AUG-2000,41.151,-73.22,1,1.8,m
National Coastal Assessment-Northeast/Connecticut,2000,CT00-0003-A,
04-AUG-2000,41.288,-73.071,1,8.0,m
National Coastal Assessment-Northeast/Connecticut,2000,CT00-0005-A,
18-SEP-2000,41.274,-72.327,1,1.5,m

8. GEOGRAPHIC AND SPATIAL INFORMATION

8.1 Minimum Longitude (Westernmost)

-75.774 decimal degrees

8.2 Maximum Longitude (Easternmost)

-66.98 decimal degrees

8.3 Minimum Latitude (Southernmost)

38.452 decimal degrees

8.4 Maximum Latitude (Northernmost)

45.185 decimal degrees

8.5 Name of area or region

The National Coastal Assessment Northeast Region covers the northeastern US coastline from Maine to Delaware.

9. QUALITY CONTROL AND QUALITY ASSURANCE

9.1 Measure Quality Objective

Not applicable

9.2 Data Quality Assurance Procedures

Not applicable

9.3 Actual Measurement Quality

Not applicable

10. DATA ACCESS

10.1 Data Access Procedures

Data can be downloaded from the web at: http://www.epa.gov/emap/nca/html/data/

10.2 Data Access Restrictions

None

10.3 Data Access Contact Persons

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10.4 Dataset Format
Tab-delimited ASCII files

10.5 Information Concerning Anonymous FTP
Not available

10.6 Information Concerning WWW
Data can be downloaded from the WWW server.

10.7 EMAP CD-ROM Containing the Dataset
Data not available on CD-ROM

11. REFERENCES

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U.S. EPA. 2001. Environmental Monitoring and Assessment Program (EMAP): National Coastal Assessment Quality Assurance Project Plan 2001-2004. U.S. Environmental Protection Agency, Office of Research and Development, National Health and Environmental Effects Research Laboratory, Gulf Ecology Division, Gulf Breeze, FL. EPA/620/R-01/002. 189 p.

12. TABLE OF ACRONYMS

AED	Atlantic Ecology Division
DE	Delaware
CT	Connecticut
EMAP	Environmental Monitoring and Assessment Program
EPA	Environmental Protection Agency
MAIA	Mid-Atlantic Integrated Assessment
MA	Massachusetts
ME	Maine
km2	Square kilometers
NCA	National Coastal Assessment
NH	New Hampshire
NHEERL	National Health and Environmental Effects Research Laboratory
NJ	New Jersey
NY	New York
NYC	New York City
PA	Pennsylvania
QA/QC	Quality Assurance/Quality Control
RI	Rhode Island
UNH	University of New Hampshire
WWW	World Wide Web

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