CATALOG DOCUMENTATION
NATIONAL COASTAL ASSESSMENT- NORTHEAST DATABASE
YEAR 2000-2006 STATIONS
STATION LOCATION DATA:"STATIONS"

TABLE OF CONTENTS

1. DATASET IDENTIFICATION

1.1 Title of Catalog document
National Coastal Assessment-Northeast Region Database
Years 2000-2006
Station Location Data

1.2 Authors of the Catalog entry
John Kiddon, U.S. EPA NHEERL-AED
Harry Buffum, Raytheon Corp.

1.3 Catalog revision date
September 2009

1.4 Dataset name
STATIONS

1.5 Task Group
National Coastal Assessment-Northeast

1.6 Dataset identification code
001

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 (NCA Northeast Region)

Donald Cobb, U.S. EPA NHEERL-AED
Walter Galloway, U.S. EPA NHEERL-AED
Stephen Hale, U.S. EPA NHEERL-AED
John Kiddon, U.S. EPA NHEERL-AED
Charles Strobel, U.S. EPA NHEERL-AED
Henry Walker, U.S. EPA NHEERL-AED

2.2 Sample Collection Investigators

Donald Cobb, U.S. EPA NHEERL-AED

2.3 Sample Processing Investigators

John Macauley, U.S. EPA NHEERL-GED

3. DATASET ABSTRACT

3.1 Abstract of the Dataset

The STATIONS data file reports information regarding stations sampled during 2000-2006 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; the local identification code assigned to the station; and the area represented by the station and stratum (used as weighting factors during analysis).

3.2 Keywords for the Dataset

Latitude, longitude, estuary name, state, cooperative, stratum, weighting factor, area.

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 NCA program was initiated in 200 and completed in 2006.

Stations were randomly selected using EMAP's probabilistic sampling framework and were usually sampled once during a summer index period (June to October). Where possible, 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 were also used to generate a series of national reports characterizing the condition of the Nation's estuaries http://www.epa.gov/nccr/.

4.2 Dataset Objective

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

4.3 Dataset Background Discussion

Refer to Section 4.4 for a list of dataset parameters. Additional information about selected parameters are discussed in this section.

The station locations (STA_LAT and STA_LNG) presented in this datafile are the *planned* latitude and longitude values designated by program designers. The *actual* latitudes and longitudes, which may differ slightly from the planned values, are reported as EVNT_LAT and EVNT_LNG in the EVENTS datafile. Generally, the user may find the actual location more useful during data analysis.

The parameter ST_COOP identifies the state-cooperative responsible for the administration of the NCA program in the Northeast. The entities responsible for sampling in 2000-2006 are listed in the Table below. Note that in some cases a ST_COOP's jurisdiction crosses state lines. For example, NJ-DB administers the program in Delaware Bay and includes sampling in New Jersey, Delaware, and Pennsylvania. The parameter STATE may be used to identify all stations located within a state's boundaries.

ST_COOP	Description	Organizations responsible for sampling
ME	Maine	Casco Bay Project/U of Southern Maine
ME-LOB	Maine Lobster Collection	Casco Bay Project/U of Southern Maine
NH	New Hampshire	Jackson Estuarine Lab/UNH
MA	Massachusetts	MA Coastal Zone Mgt. U. of Massachusetts/Boston, Dartmouth
MA-FSH	Massachusetts Fish Survey	Mass. Marine Fisheries
RI	Rhode Island	Roger Williams University (2000), otherwise University of Rhode Island
RI-FSH	Rhode Island Fish Survey	Roger Williams University (2000), otherwise University of Rhode Island
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	New Jersey	
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
DB	Delaware Bay	
DI	Delaware Inland Bays	
	Delaware Atlantic Coast	
MD	Maryland	
VA	Virginia	

The seven-year NCA program in the Northeast is divided into three phases, as designated by DSNPHASE. The Northeast (Maine through Delaware) was assessed completely in each Phase. The Table below lists the number of stations sampled in the Northeast, organized by Phase, Year, and ST_COOP. Note the following regarding Phase and ST_COOP. Phase 1 was conducted in

2000-2001, when each ST_COOP followed a two-year sampling design in which half of each stratum (described below) was uniformly sampled each year. Phase 2 comprised years 2002-2004 (2002-2005 for ST_COOP = NH), when each stratum was again completely sampled, and Phase 3 pertains to 2005-2006 (2006 only for ST_COOP = NH), when each stratum was once again uniformly sampled over a two-year period. Analyzing data by Phase provides the most accurate picture of regional condition, particularly when applying station weights in the analysis (discussed below). Note the change in ST_COOP name for a few coops in Phase 3; essentially, NJ-C = NJ, NJ-DB = DB, and DE = DI. Only Phase 3 data for MD and VA are contained in this database; contact John Macauley (Section 13) for information regarding earlier data for these states. The -LOB and -FSH coops pertain to non-probabilistic sites where lobster, fish, and limited physical and chemical data were collected.

Number of stations in Northeast NCA by Phase, Year, and ST_COOP

Count of STATION	Phase	year						
	I		II				III	
ST_COOP	2000	2001	2002	2003	2004	2005	2005	2006
ME	29	52	29	32	35		25	25
NH	41	41	43	52	41	42		31
MA	38	52		19	21		23	25
RI	35	35		18	18		25	25
CT	29	39	13	10	20		15	34
NY	30	36	53	26	28		28	25
NJ-C	30	40	30	23	36			
NJ							16	46
NJ-DB	37	37	37	34	38			
DB							22	28
DE	18	21	20	19	20			
DI							25	25
MD							24	25
VA							50	50
ME-LOB			29	14	12			
MA-FSH	28							
RI-FSH	10		14	11	12		12	12
CT-FSH	19	12	28	10	9		11	10

Stations are grouped into STRATA based on watershed boundaries, state jurisdiction, or physical property such as depth. The STRATA are generally organized to reflect water body boundaries and may therefore contain stations falling in more than one state. Different strata were generally used in each of the three phases. ST_AREA is the area (km2) of the stratum. Every station was assigned a station weight (AREA) equal to the area (km2) represented by the station. The Table below lists the sum of the station areas by ST_COOP, STRATA, Phase, and Year. Note that the sum of areas for ST_COOP in each Phase is approximately equivalent and equal to the stratum area (ST_AREA). For non-probabilistic sites associated with fish surveys and revisits, AREA and ST_AREA are intentionally left blank.

Sum of weighting factors (Station Area in km2) by ST_COOP, STRATA, Phase, and Year: Maine through Delaware

Sum of AREA		DSNPHASE	Year								
		1		1 Total	2				2 Total	3		3 Total
ST_COOP	STRATA	2000	2001		2002	2003	2004	2005		2005	2006	
ME	Cobscook Bay (Phase I)	20	78	98								
	Penobscot Bay (Phase I)	705	825	1531								
	Casco Bay (Phase I)	262	307	569								
	ME Remaining Coast (Phase I)	418	664	1083								
	Cobscook Bay (Phase II)				98				98			
	Blue Hill Bay (Phase II)				376				376			
	ME North Coast (Phase II)				569				569			
	ME Mid Coast (Phase II)					1476			1476			
	ME South Coast (Phase II)						634		634			
	ME North Coast (Phase III)									1642		1642
	ME South Coast (Phase III)										1623	1623
	Casco Bay NEP (Augmented)		0	0								
ME Total		1405	1874	3280	1043	1476	634		3152	1642	1623	3266
NH	New Hampshire (Phase I)	36	28	64								
	New Hampshire (Phase II)				12	18	12	13	56			
	New Hampshire (Phase III)										70	70
	New Hampshire (lobster)					0			0			
	NH Revisits				0	0	0	0	0			
NH Total		36	28	64	12	18	12	13	56		70	70
MA	Massachussetts (Phase I)	127	199	326								
	Salem Sound (Phase I)	17	32	50								
	Buzzards Bay (Phase I)	353	225	578								
	Cape Cod Bay (Phase I)	646	644	1290								
	Massachussetts (Phase II)					957	1620		2577			
	Massachussetts (Phase III)									1007	1095	2102
	Buzzards Bay NEP (Augmented)		0	0								
MA Total		1143	1101	2244		957	1620		2577	1007	1095	2102
RI	Narragansett Bay (Phase I)	183	185	367								
	RI South Coast (Phase I)	55	29	84								
	RI Deep Water (Phase II)					51	52		103			
	RI Mid-Depth (Phase II)					91	105		197			
	RI Ponds (Phase II)					6	11		17			
	RI: Deep Water (Phase III)									96	66	162
	RI: Shallow (Phase III)									97	129	226
	RI Fish				0				0			
RI Total		237	214	451	0	148	169		317	193	196	388
CT	Long Island Sound (Phase I)	1281	1893	3175								
	CT Coastal (Phase I)	35	49	84								
	Long Island Sound (Phase II)					1478	1831		3308			
	CT Coastal (Phase II)				74				74			
	CT Coastal East (Phase II)						26		26			
	Long Island Sound (Phase III)									728	1894	2622

	CT Tidal Rivers (Phase III)								122	187	309
CT Total		1316	1943	3259	74	1478	1856	3408	849	2082	2931
NY	Southern Long Island (Phase II				260	374	263	897			
	NY Harbor (Phase I)	111	195	306							
	Hudson River (Phase I)	165	97	262							
	NY Small Systems (Phase I)	41	37	78							
	Southern Long Island (Phase I)	471	515	986							
	Hudson River (Phase II)						274	274			
	Long Island Sound (Phase II)						0	0			
	NY Harbor (Phase II)				132	89	87	308			
	NY Small Systems (Phase II)				33	36	12	81			
	New York (Phase III)								733	624	1357
	Hudson River (Phase III)								79	158	236
	NEP Augmented				0			0			
	NY Fish				0			0			
	NY Revisit					0		0			
NY Total		787	844	1632	425	499	636	1560	812	782	1594
NJ-C	NJ Coast (Phase I)	260	260	520							
	NJ Harbor (Phase I)	116	109	226							
	NJ Coast (Phase II)				173	120	185	478			
	NJ Harbor (Phase II)				51	73	51	174			
	Barnegat Bay (Augmented)		0	0							
	NJ Coast Re-visit				0			0			
	New Jersey Coast (revisit)						0	0			
	NJ Harbor (revisit)						0	0			
NJ-C Total		377	369	746	224	193	235	652			
NJ	NJ Coast (Phase III)								91	374	464
	NJ Harbor (Phase III)								76	123	198
NJ Total									166	497	663
NJ-DB	Delaware Bay East (Phase I)	350	221	572							
	Delaware Bay West (Phase I)	307	168	476							
	Delaware Bay Coast (Phase I)	32	26	58							
	Delaware River (Phase I)	517	457	974							
	Delaware Bay East (Phase II)				233	147	270	650			
	Delaware Bay West (Phase II)				205	112	166	483			
	Delaware Bay Coast (Phase II)				27	13	15	55			
	Delaware River (Phase II)				165	304	262	732			
	Delaware River (revisit)						0	0			
	Delaware Bay Coast (revisit)						0	0			
	NJ-DB Re-visit				0			0			
NJ-DB Total		1207	873	2080	630	576	714	1920			
DB	Delaware Bay East & West (Phase III)								631	459	1091
	Delaware Bay Coast (Phase III)								13	55	68
	Delaware River (Phase III)								480	420	900
DB Total									1124	934	2058
DE	DE Inland Bays (Phase I)	36	52	88							
	DE Inland Bays (Phase II)				24	35	25	84			

	DE Inland Bays (Augmented)		0	0								
DE Total		36	52	88	24	35	25		84			
DI	DE Inland Bays (Phase III)									45	45	89
DI Total										45	45	89
Grand Total		6544	7297	13842	2432	5380	5900	13	13726	6030	7518	13549

Sum of weighting factors (Station Area in km2) by ST_COOP, STRATA, Phase, and Year: Maryland and Virginia

Sum of AREA		DSNPHASE Year										
		1		1 Total	2				2 Total	3		3 Total
ST_COOP	STRATA	2000	2001		2002	2003	2004	2005		2005	2006	
MD	CB - MD Mainstem (Phase III)									1764	1411	3175
	CB - MD Tribs (Phase III)									1045	1568	2613
	MD Coastal Bays (Phase III)									158	132	290
MD Total										2967	3111	6078
VA	CB - VA Mainstem (Phase III)									2086	1707	3793
	CB - VA Tribs (Phase III)									811	703	1515
	VA Coastal Bays (Phase III)									154	257	411
VA Total										3052	2667	5719

Sum of weighting factors for Fish cillections sites (non-probability sites, no weights assigned)

Sum of AREA		DSNPHASE Year										
		1		1 Total	2				2 Total	3		3 Total
ST_COOP	STRATA	2000	2001		2002	2003	2004	2005		2005	2006	
ME-LOB	ME Lobster				0	0	0		0			
MA-FSH	MA Fish	0		0								
RI-FSH	RI Fish	0		0	0	0	0		0	0	0	0
CT-FSH	LIS Fish	0	0	0	0	0	0		0	0	0	0

The parameter STA_ALT 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 (AREA) based on the value of STA_ALT, 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.

4.4 Summary of Dataset Parameters

* denotes parameters that should be used as key fields when merging data

*STATION	Station name
*STAT_ALT	Alternate site code (A, B, or C)
ESTUARY	Estuary name
STA_LAT	Latitude (decimal degrees, datum NAD83)
STA_LNG	Longitude (decimal degrees, datum NAD83)
ST_COOP	State cooperative agreement responsible for

	sampling
LOCAL_ID	Station identifier (if any) assigned by ST_COOP
STATE	State jurisdiction of station
PROVINCE	Bio-geographical province containing station (AP or VP)
SYSTEM	Estuarine system or region name
STRATA	Stratum name
AREA	Station area (km2)
ST_AREA	Stratum area (km2)
DSNPHASE	Design phases in Northeast NCA only (1, 2, or 3)

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.

5.2 Data Preparation and Sample Processing

No analytical processing was involved with the STATIONS parameters

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 Components of the Dataset

PARAMETER	TYPE	LENGTH	LABEL
DSNPHASE			
STATION	Char	10	NCA station name
STAT_ALT	Char	1	Alternate site code (A, B, C)
STATE	Char	2	State where station is located
ESTUARY	Char	40	Estuary name
PROVINCE	Char	2	Province name
STA_LAT	Num	8	Latitude (decimal degrees, datum
STA_LNG	Num	8	Longitude (decimal degrees, datum
ST_COOP	Char	6	State Cooperative Agreement
LOCAL_ID	Char	8	Station identifier used by ST_COOP
STRATA	Char	30	Stratum name
SYSTEM	Char	30	Estuarine system or region name
AREA	Num	8	Station area
ST_AREA	Num	8	Stratum area

7.1.2 Precision of Reported Values

STA_LAT and STA_LNG are reported to 0.0001 decimal degree units. AREA and ST_AREA are reported to three significant digits.

7.1.3 Minimum Value in Dataset

Name	Min
STA_LAT	36.564
STA_LNG	-77.304
AREA	0.001
ST_AREA	24.8

7.1.4 Maximum Value in Dataset

Name	Max
STA_LAT	45.1848
STA_LNG	-66.946
AREA	457
ST_AREA	6702.364

7.2 Data Record Example

STATION	STAT_ALT	STATE	ESTUARY	SYSTEM	PROVINCE
CT00-0001	A	CT	Connecticut Ponds	Long Island Sound	VP
CT00-0003	A	CT	Housatonic River	Long Island Sound	VP
CT00-0005	A	CT	Connecticut River	Long Island Sound	VP

STA_LAT	STA_LNG	ST_COOP	LOCAL_ID	STRATA	AREA	ST_AREA
41.1512	-73.2199	CT	21A	CT Coastal (Phase I)	1.13	84.4
41.2877	-73.071	CT	23A	CT Coastal (Phase I)	3.26	84.4
41.2738	-72.327	CT	25A	CT Coastal (Phase I)	0.06	84.4

8. GEOGRAPHIC AND SPATIAL INFORMATION

8.1 Minimum Longitude (Westernmost)

-77.304 decimal degrees

8.2 Maximum Longitude (Easternmost)

-66.946 decimal degrees

8.3 Minimum Latitude (Southernmost)
36.564 decimal degrees

8.4 Maximum Latitude (Northernmost)
45.1848 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
http://www.epa.gov/emap/nca/html/regions/index.html

10.2 Data Access Restrictions
None

10.3 Data Access Contact Persons
John Kiddon, U.S. EPA NHEERL-AED, Narragansett, RI
401-782-3034, 401-782-3030 (FAX), kiddon.john@epa.gov

Harry Buffum, Data Manager, Raytheon Corp., Narragansett, RI
401-782-3183, 401-782-3030 (FAX), buffum.harry@epa.gov

10.4 Dataset Format
ASCII (CSV) and SAS Export files

10.5 Information Concerning Anonymous FTP
Not available

10.6 Information Concerning WWW
No gopher access, see Section 10.1 for WWW access

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

11. REFERENCES

Strobel, C.J. 2000. Environmental Monitoring and Assessment Program: Coastal 2000 - Northeast component: field operations manual. Narragansett (RI): U.S. Environmental Protection Agency, National Health

and Environmental Effects Research Laboratory, Atlantic Ecology Division. EPA/620/R-00/002. 68 p.

U.S. EPA. 2001. National Coastal Assessment: Field Operations Manual. 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-01/003. 72 p.

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
EMAP	Environmental Monitoring and Assessment Program
EPA	Environmental Protection Agency
NCA	National Coastal Assessment
NHEERL	National Health and Environmental Effects Research Laboratory
QA/QC	Quality Assurance/Quality Control

13. PERSONNEL INFORMATION

Chuck Audette, Database Analyst
Raytheon Corporation
27 Tarzwell Drive, Narragansett, RI 02882-1197
401-782-3092, 401-782-3030 (FAX), audette.chuck@epa.gov

Harry Buffum, Database Manager
Raytheon Corporation
27 Tarzwell Drive, Narragansett, RI 02882-1197
401-782-3183, 401-782-3030 (FAX), buffum.harry@epa.gov

Don Cobb, NCA Project Officer
U.S. Environmental Protection Agency, NHEERL-AED
27 Tarzwell Drive, Narragansett, RI 02882-1197
401-782-9616, 401-782-3030 (FAX), cobb.donald@epa.gov

Walter Galloway, NCA Project Officer
U.S. Environmental Protection Agency, NHEERL-AED
27 Tarzwell Drive, Narragansett, RI 02882-1197
401-782-3096, 401-782-3030 (FAX), galloway.walt@epa.gov

Steve Hale, EMAP Information Manager
U.S. Environmental Protection Agency, NHEERL-AED
27 Tarzwell Drive, Narragansett, RI 02882-1197
401-782-3048, 401-782-3030 (FAX), hale.stephen@epa.gov

Melissa Hughes, Data Librarian
Raytheon Corporation
27 Tarzwell Drive, Narragansett, RI 02882-1197
401-782-3184, 401-782-3030 (FAX), hughes.melissa@epa.gov

John Kiddon, NCA Analyst and Northeast QA Manager
U.S. Environmental Protection Agency, NHEERL-AED
27 Tarzwell Drive, Narragansett, RI 02882-1197
401-782-3044, 401-782-3030 (FAX), kiddon.john@epa.gov

John Macauley, NCA QA Officer
U.S. Environmental Protection Agency, NHEERL-GED
1 Sabine Island Dr., Gulf Breeze, FL 32561
850-934-9353, macauley.john@epa.gov

Charlie Strobel, AED Analyst and Project Officer
U.S. Environmental Protection Agency, NHEERL-AED
27 Tarzwell Drive, Narragansett, RI 02882-1197
401-782-3180, 401-782-3030 (FAX), strobel.charles@epa.gov

Kevin Summers, Acting National NCA Program Director
U.S. Environmental Protection Agency, NHEERL-GED
1 Sabine Island Dr., Gulf Breeze, FL 32561
850-934-9244, summers.kevin@epa.gov

Hal Walker, Northeast NCA Program Director and Analyst
U.S. Environmental Protection Agency, NHEERL-AED
27 Tarzwell Drive, Narragansett, RI 02882-1197
401-782-3007, 401-782-3030 (FAX), walker.henry@epa.gov