7-1978

Chesapeake Bay Baseline Data Acquisition Appendix V: Shellfish Bed Closures

Chesapeake Research Consortium, Incorporated

University of Maryland, Center for Environmental and Estuarine Studies

Virginia Institute of Marine Science

CHESAPEAKE BAY BASELINE DATA ACQUISITION

SHELLFISH BED CLOSURES

Contract No. 68-01-3994

between

U. S. Environmental Protection Agency

and

Chesapeake Research Consortium, Incorporated

July 1978

Chesapeake Research Consortium, Incorporated

1419 Forest Drive, Suite 207
Annapolis, Maryland 21403
(301) 263-0884

The Johns Hopkins University
University of Maryla
Smithsonian Instituti
Virginia Institute of

APPENDIX V

SHELLFISH BED CLOSURES

A Report
under EPA Contract No. 68-01-3994

July 1978

Chesapeake Research Consortium, Incorporated

prepared by

University of Maryland,
Center for Environmental and Estuarine Studies

and

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The Johns Hopkins University
University of Maryland
Smithsonian Institution
Virginia Institute of Marine Science

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INTRODUCTION

This report forms one of several appendices which are the body of the Chesapeake Bay Baseline Data Acquisition Final Report. These appendices are as follows:

Appendix I. A Chesapeake Bay Directory

Appendix II. Submerged Aquatic Vegetation

Appendix III. Toxics in the Cheasapeake Bay

Appendix IV. Eutrophication

Appendix V. Shellfish Bed Closures

Appendix VI. Dredging and Spoil Disposal

Appendix VII. Modification of Fisheries

Appendix VIII. Hydrologic Modifications

Appendix IX. Wetlands Alteration

Appendix X. Effects of Boating and Shipping on Water Quality

Appendix XI. Shoreline Erosion

This report comprises three sections as follows:

Annex I. contains scientists presently engaged in research in this field.

Annex II. is an indexed listing of data files pertinent to the Chesapeake Bay and adjacent coastal states.

Annex III. summarizes the monitoring efforts as derived from Annex II.

The source material for appendices IV-XI includes minimal material based on interviews, field work and verification. Efforts were directed to determining researchers and their activities from "A Chesapeake Bay Directory" only. For each of the eight subject areas, a key word list was also formulated and the respective pertinent data files compiled from the Environmental Data Base Directory. These files served as the primary source for the monitoring programs section.

ANNEX I

Directory of Researchers

Shellfish Bed Closures

This "Directory of Researchers" contains a listing of scientists who are presently working in this field, their affiliations and their specific research activities. The information was compiled from "A Chesapeake Bay Directory" by A. McErlean et al. which was published as a partial fulfillment of this contract.

For researchers and research activities in other national and international areas the reader is referred to the "International Directory of Marine Scientists," issued by the Food and Agriculture Organization of the United Nations in 1977. Copies of this directory are available at the following locations:

EPA Region III
Chesapeake Bay Program Office
Curtis Building
6th and Walnut Streets
Philadelphia, PA 19106

Chesapeake Research Consortium
1419 Forest Drive
Suite 207
Annapolis, MD 21403

University of Maryland, Center for Environmental and
Estuarine Studies
ATTN: Karen Rutledge
P. O. Box 775
Horn Point Rd.
Cambridge, MD 21613

Virginia Institute of Marine Science
ATTN: Thomas Lochen
Gloucester Point, VA 23062

ANNEX I

Directory of Researchers

Shellfish Bed Closures

Bender, M. E. Virginia Institute of Marine Science	Eutrophication, water quality criteria for aquatic life, kepone, pesticides, heavy metals - Chesapeake Bay.
Birkner, F. B. University of Maryland	Heavy metals in oysters.
Boon, D. D. Marine Products Laboratory, University of Maryland	Heavy metal concentrations in shellfish - Chesapeake Bay.
Brands, R. U. S. Food and Drug Administration	Specialist for shellfish sanitation.
Cockey, R. R. Marine Products Laboratory, University of Maryland	Marine microbiological processes, public health aspects of pollution.
Cole, M. A. Chesapeake Biological Laboratory, University of Maryland	Aquatic microbiology.
Colwell, R. R. University of Maryland	Classification of marine bacteria, pollution degradation by micro-organisms, microbial ecology, incidence of pathogens.
Cooney, J. J. Chesapeake Biological Laboratory, University of Maryland	Microbial physiology and ecology, metabolism of hydrocarbons, photo-killing of bacteria and microbial transformations of metals.
Drobeck, K. G. Chesapeake Biological Laboratory, University of Maryland	Aquatic microbiology.

Dunnington, E. A. Chesapeake Biological Laborarory. University of Maryland	Shellfish biology.
Eisenberg, M. Maryland Department of Health and Mental Hygiene	Shellfish sanitation.
Gross, M. G. Chesapeake Bay Institute, Johns Hopkins University	Sediments and wastes in coastal and ocean environment, urban effects in ocean.
Haley, A. J. University of Maryland	Parasites and disease of Bay fauna.
Haven, D. S. Virginia Institute of Marine Science	Physiology of mollusks, natural sediments of oyster bars.
Heatfield, B. M. University of Maryland	Neoplasia and phagocytosis in bivalves.
Hetrick, F. M. University of Maryland	Human enteroviruses in Bay and Bay biota.
Hiegel, M. H. Chesapeake Biological Laboratory, University of Maryland	Benthic invertebrates.
Howard, L. V. University of Maryland	Human pathogens in aquatic environments.
Huggett, R. J. Virginia Institute of Marine Science	Heavy metals, pesticides, oil pollution, water quality criteria.
Ingling, A. L. University of Maryland	Microbiology and pathobiology of soft-shelled clams.
Kaiser, H. E. University of Maryland	Invertebrate toxicology.
Kator, H. E. Virginia Institute of Marine Science	Microbiology of hydrocarbon degradation, microbiology of estuaries and marshlands.

Kennedy, V. S. Horn Point Environmental Laboratory, University of Maryland	Benthic ecology, oyster reproduction and settlement.
Krantz, G. E. Horn Point Environmental Laboratory, University of Maryland	Shellfish biology, diseases of finfish and estuarine organisms, hatchery techniques.
Krantz, L. Horn Point Environmental Laboratory, University of Maryland	Shellfish histology.
Mountford, N. K. Chesapeake Biological Laboratory, University of Maryland	Benthic invertebrates.
Neilson, B. J. Virginia Institute of Marine Science	Dispersion reaeration and stratification in estuaries.
Perkins, F. O. Virginia Institute of Marine Science	Management of marine and estuarine resources, coastal zone management, cell biology of marine protists.
Pfitzenmeyer, H. T. Chesapeake Biological Laboratory, University of Maryland	Benthic invertebrate ecology, shellfish biology and management.
Phelps, H. Federal City College	Heavy metals, chelation and adsorption of cadmium by shellfish.
Rhodes, M. W. Virginia Institute of Marine Science	Bacteriology.
Roosenburg, W. H. Chesapeake Biological Laboratory, University of Maryland	Biology and toxicology of shellfish.
Rosenkranz, A. M. Chesapeake Biological Laboratory, University of Maryland	Biology and toxicology of shellfish.

Spoon, D. M. Georgetown University	Protozoans and pollutants in in the Potomac River.
Sprague, V. Chesapeake Biological Laboratory, University of Maryland	Protozoan diseases and disease agents.
Weiner, R. M. University of Maryland	Microbial, ecology, pathogen input, microbial degradative processes.
Wheaton, F. W. University of Maryland	Fisheries and shellfish, aquaculture, seafood processing.
Wiley, C. W. Virginia Department of Health	Shellfish sanitation.

ANNEX II

Data Files

Shellfish Bed Closures

ANNEX II

Data Files

Part A

Data Files

Shellfish Bed Closures

The data files included in this section are arranged by EDBD accession number. This number should be used in inquiries to EDBD or in specific citations of files. However, for the purposes of this report, these files were assigned unique page numbers.

Files of areas adjacent to the Chesapeake Bay such as North Carolina, Delaware, New Jersey and Pennsylvania have been included when encountered.

THE ENCLOSED LISTING IS A SELECTION OF FILE DESCRIPTIONS FROM THE ENDEX SYSTEM. ITS PURPOSE IS TO COMPARE USERS WITH REQUIREMENTS FOR HISTORICAL ENVIRONMENTAL DATA TO HOLDERS OF THOSE DATA.

THIS OUTPUT WAS SELECTED FROM THE ENTIRE FILE BASED ON CERTAIN CRITERIA SPECIFIED BY THE USER. THESE CRITERIA ARE REPEATED BELOW:

EDED

THE OUTPUT IS IN TWO PARTS. FIRST IS A LISTING OF ALL THE EDED'S SELECTED, PRINTED IN ID NUMBER ORDER. AT THE BACK OF EACH OUTPUT MAY BE A CROSS-INDEX, LISTING SUCH THINGS AS WHICH FILE DESCRIPTIONS DESCRIBE DATA COLLECTED ON EACH PLATFORM TYPE, OR WHICH FILE DESCRIPTIONS HAVE DATA IN EACH GRID LOCATOR. THIS SECTION WILL VARY DEPENDING ON THE REQUIREMENTS OF THE USER. THE ID NUMBER IS IN THE UPPER LEFT CORNER OF EACH FILE DESCRIPTION. THE FOLLOWING IS AN EXPLANATION OF FIELDS ON EACH PAGE.

FILE NAME -- TOP CENTER OF PAGE. IDENTIFIED BY DATA HOLDER. ALSO, TIME RANGE OF DATA COLLECTION.
PROJECTS -- LIST OF PROJECTS UNDER WHICH DATA CONTAINED IN FILES MAY HAVE BEEN COLLECTED.
GENERAL GEOGRAPHIC AREA -- BEGINS WITH CONTINENT OR OCEAN IN WHICH DATA WERE COLLECTED AND DESCRIBES SMALLER AND SMALLER AREAS TO GIVE USER A GENERAL AREA OF DATA COLLECTION.
ABSTRACT -- CONTAINS GENERAL INFORMATION ABOUT WHY THE DATA WERE COLLECTED AND WHERE, METHODS OF ANALYSIS AND PERTINENT CONCLUSIONS.
DATA AVAILABILITY -- CONTAINS RESTRICTIONS ON DATA USE, IF BLANK IT MEANS THERE ARE NO KNOWN RESTRICTIONS.
PLATFORM TYPES -- LIST OF TYPES OF PLATFORMS (IF ANY) USED TO COLLECT DATA.
ARCHIVE MEDIA -- MEDIA ON WHICH DATA ARE STORED AND A ROUGH ESTIMATE OF THE SIZE OF THE FILE.
FUNDING -- ORGANIZATION FUNDING THE DATA COLLECTION (IF KNOWN).
INVENTORY -- WHEN DETAILED INFORMATION ON STATION LOCATIONS, COUNTS OF OBSERVATIONS/SAMPLES, ETC. ARE AVAILABLE, IT WILL BE DENOTED HERE.
PUBLICATIONS -- PUBLICATIONS RESULTING FROM THIS DATA SET (LIST IS SOMETIMES CONDENSED).
CONTACT -- NAME, ADDRESS AND PHONE NUMBER OF PERSON TO CONTACT TO OBTAIN FURTHER INFORMATION OR ACTUAL COPIES OF DATA.
GRID LOCATOR -- A SERIES OF NUMBERS USED TO MAKE GEOGRAPHIC RETRIEVAL POSSIBLE ON A COMPUTER. LATITUDE AND LONGITUDE ARE COMBINED INTO A SINGLE NUMBER. THE WORLD METEOROLOGICAL ORGANIZATION (WMO) CODE IS USED TO IDENTIFY AREAS WHERE DATA WERE COLLECTED. THIS MAY BE A 4,6,8, OR 10 DIGIT NUMBER DEPENDING ON WHETHER THE DATA HOLDER CHOSE TO IDENTIFY AREAS DOWN TO 10-DEGREE SQUARES OF LATITUDE AND LONGITUDE OR TO 1-DEGREE, 10-MINUTE, OR 1-MINUTE SQUARES.
FOR A 4-DIGIT GRID LOCATOR THE NUMBERS ARE AS FOLLOWS:
DIGIT 1 -- QUADRANT OF WORLD: 1=NE, 3=SE, 5=SW, 7=NW.
DIGIT 2 -- TENS DIGIT OF LATITUDE.
DIGITS 3/4 -- HOW EDS A [redacted] DIGITS OF LONGITUDE.
THUS 7408 WOULD BE THE 10-DEGREE SQUARE OF WHICH THE POINT 40N AND 080W IS THE LOWER RIGHT HAND CORNER.
FOR A SIX DIGIT NUMBER, DIGITS 5 AND 6 REPRESENT THE UNITS DIGITS OF LATITUDE AND LONGITUDE. THUS 740303 WOULD IDENTIFY THE 1-DEGREE SQUARE OF 42N AND 083W.
WITH AN 8-DIGIT NUMBER, 74063041 REPRESENTS THE SQUARE AT 42-DEGREES, 30-MINUTES NORTH AND 083-DEGREES, 40-MINUTES WEST, OR 10-MINUTE SQUARE.

THE SMALLEST AREA IDENTIFIED IN THIS SYSTEM IS A 1-MINUTE SQUARE, OR A 4-DIGIT GRID LOCATOR (E.G., 7031 IS 42-DEGREES 31-MINUTES NORTH AND 065-DEGREES, 46-MINUTES WEST).

PARAMETER IDENTIFICATION SECTION -- THIS PORTION OF THE FILE DESCRIPTION CONTAINS A LIST OF PARAMETERS MEASURED, THE SPHERE IT WAS MEASURED IN, THE METHODS USED AND THE UNITS OF MEASUREMENT. IN ADDITION, SUCH INFORMATION AS THE NUMBER OF MEASUREMENTS OF EACH PARAMETER AND THE FREQUENCY (IF REGULARLY SPACED) ARE REPORTED. A SPECIALIZED INDEX VOCABULARY IS AVAILABLE DEFINING THE PARAMETER, SPHERE, AND METHOD TERMS USED.

QUESTIONS CONCERNING THIS OUTPUT SHOULD BE RELAYED TO THE NODC OCEANOGRAPHIC SERVICES BRANCH (202) 634-7500 OR TO THE DATA INDEX BRANCH (202) 634-7298.

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., CHESAPEAKE BAY, MARYLAND

ABSTRACT:
EXTENSIVE SURVEY OF SOFT CLAM POPULATION AND DISTRIBUTION AFTER THE PASSAGE OF HURRICANE AGNES. DATA COLLECTED BY COMMERCIAL CLAM FISHERMEN. MARKET AND SUB-MARKET COUNTS, VOLUME PER ACRE, SIZE IN INCHES FOR SUBMARET CLAMS.
(DATA SHEETS TO BE MICROFILMED FOR STORAGE)

DATA AVAILABILITY:
COST OF RETRIEVAL

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
MAGNETIC TAPE DIGITAL; DATA SHEETS
10 CUBIC FEET OF DATA SHEETS, 2-6 INCH THICK COMPUTOR PRINTOUTS

FUNDING:
MD DNR

INVENTORY:

PUBLICATIONS:

CONTACT:
F L HAMONS 301-267-5784
MARYLAND DEPARTMENT OF NATURAL RESOURCES
TAWES STATE OFFICE BUILDING
ANNAPOLIS MARYLAND USA 21401

GRID LOCATOR (LAT):
730785 730786 730796

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP	31000	STATIONS			
TIME	EARTH	STATION TIME	YMD	31000	STATIONS			
DEPTH	WATER	WIRE LENGTH	FEET	31000	OBS	1 TIME EACH STATION	BOTTOM	
BOTTOM TYPE	BOTTOM	VISUAL	SOFT, MEDIUM, HARD, OYSTER	31000	OBS	1 TIME EACH STATION	BOTTOM	
COUNT OF BENTHIC ANIMALS	BOTTOM	VISUAL	PER CENT OF SAMPLE THAT WAS MARKET SIZE	31000	OBS	1 TIME EACH STATION	BOTTOM	SOFT CLAM ONLY, 12 SQ FT SAMPLE WITH CUTTING HEAD DREDGE
VOLUME DETERMINA	BOTTOM	VISUAL	BUSHELS PER	31000	OBS	1 TIME EACH	BOTTOM	

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
TION OF BENTHIC ANIMALS			ACRE FOR MARKET AND SUBMARKET SIZE		STATION		
LENGTH OF BENTHIC ANIMALS	BOTTOM	DIRECT	INCHES, MEAN SIZE AND RANGE FOR MARKET AND SUBMARKET SOFT CLAMS	31000 OBS	1 TIME EACH STATION	BOTTOM	

DATA COLLECTED: MARCH 1972 10 FEBRUARY 1973 RECEIVED: JANUARY 01, 1978

PROJECTS:

GENERA GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, LOWER CHESAPEAKE BAY, VIRGINIA, JAMES RIVER, YORK RIVER

ABSTRACT:
ZINC, COPPER AND CADMIUM LEVELS WERE MEASURED IN HARD CLAMS (MERCENARIA MERCENARIA) COLLECTED AT 35 LOCATIONS IN THE LOWER CHESAPEAKE BAY OVER A ONE YEAR PERIOD BEGINNING MARCH 1972.

DATA AVAILABILITY:
THE RESULTS OF THE STUDY ARE AVAILABLE ON DATA SHEETS FROM VIMS.

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
DATA SHEETS
1200 OBS

FUNDING:

INVENTORY:

PUBLICATIONS:

CONTACT:
DR. PETER LARSEN 207 633 5572
MAINE DEPART ENT OF MARINE RESOURCES
WEST BOOTHBAY HARBOR MAINE USA 04575

GRID LOCATOR (LAT):
730776 730766

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	DM	35 STATIONS			
TIME	EARTH	STATION TIME	YMDL	35 STATIONS			
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	400 OBS			MERCENARIA MERCENARIA
COPPER IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	400 OBS			MERCENARIA MERCENARIA
CADMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	400 OBS			MERCENARIA MERCENARIA
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NAME	1 OBS			MERCENARIA MERCENARIA

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, CHESAPEAKE BAY, VIRGINIA, LOWER JAMES RIVER, NEWPORT NEWS SHIPYARD

ABSTRACT:
130 OBSERVATIONS OF HEAVY METALS IN HARD CLAMS AND OYSTERS WERE OBSERVED AT 20 STATIONS IN THE NEWPORT NEWS SHIPYARD. COPPER, ZINC, AND CADMIUM WERE DETECTED BY ATOMIC ABSORPTION SPECTROMETRY

DATA AVAILABILITY.

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
DATA SHEETS; REPORTS
DATA SHEETS FOR 20 STATIONS MEASURED FOR 2 MONTHS

FUNDING:

INVENTORY:

PUBLICATIONS:
REPORT TO BE SENT TO NEWPORT NEWS SHIPBUILDING AND DRYDOCK COMPANY

CONTACT:
ROBERT HUGGETT 703-642-2111
VIRGINIA INSTITUTE OF MARINE SCIENCE
GLOUCESTER POINT VIRGINIA USA 23062

GRID LOCATOR (LAT):
730776 730766

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATIONS	20	STATIONS			
TIME	EARTH	STATION TIME	YMDL	20	STATIONS			
COPPER IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	130	OBS			CRASSOSTREA VIRGINICA, MERCENARIA MERCENARIA
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	130	OBS			CRASSOSTREA VIRGINICA, MERCENARIA MERCENARIA
CADMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	130	OBS			CRASSOSTREA VIRGINICA, MERCENARIA MERCENARIA
SPECIES	BOTTOM	KEY	NAME	130	OBS			CRASSOSTREA

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
DETERMINATION OF BENTHIC ANIMALS							VIRGINICA, MERCENARIA MERCENARIA

DATA COLLECTED: DECEMBER 1970 TO FEBRUARY 1971 RECEIVED: MAY 16, 1973

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, CHESAPEAKE BAY, VIRGINIA, JAMES RIVER,YORK RIVER, RAPPAHANNOCK RIVER, VIRGINIA

ABSTRACT:
HEAVY METALS IN OYSTERS (CRASSOSTREA VIRGINICA) WERE SAMPLED AT 95 STATIONS IN THE LOWER CHESAPEAKE BAY. DATA APPEARS IN WATER RESEARCH 1973, VOL 7 PP451-460

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
DATA SHEETS
DATA SHEETS FOR 95 DAILY STATIONS

FUNDING:

INVENTORY:

PUBLICATIONS:
WATER RESEARCH 1973 VOL 7, 451-460

CONTACT:
ROBERT HUGGETT 703-642-2111 X83
VIRGINIA INSTITUTE OF MARINE SCIENCE
GLOUCESTER POINT VIRGINIA USA 23062

GRID LOCATOR (LAT):
730766 730776

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATIONS	95	STATIONS			
TIME	EARTH	STATION TIME	YMDL	450	STATIONS			
COPPER IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION, BODY WET WEIGHT	450	OBS		BOTTOM	CRASSOSTREA VIRGINICA
CADMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION, BODY WET WEIGHT	450	OBS		BOTTOM	CRASSOSTREA VIRGINICA
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION, BODY WET WEIGHT	450	OBS		BOTTOM	CRASSOSTREA VIRGINICA
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NAME	450	OBS		BOTTOM	CRASSOSTREA VIRGINICA

HEAVY METALS IN RANGIA CUNEATA
DATA COLLECTED: SEPTEMBER 1972 TO PRESENT
RECEIVED: MAY 01, 1978

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, CHESAPEAKE BAY, VIRGINIA, JAMES RIVER, RAPPAHANNOCK RIVER

ABSTRACT:
HEAVY METALS IN THE CLAM (RANGIA CUNEATA) AT 60 STATIONS FROM 1972 TO THE PRESENT IN THE JAMES AND RAPPAHANNOCK RIVERS

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
DATA SHEETS
DATA SHEETS FOR 7 PARAMETERS AT 60 STATIONS

FUNDING:

INVENTORY:

PUBLICATIONS:
VIMS SPECIAL SCIENTIFIC REPORT NO 44

CONTACT:
ROBERT CROONENBERG 703-642-2111
VIRGINIA INSTITUTE OF MARINE SCIENCE
GLOUCESTER POINT VIRGINIA USA 23062

GRID LOCATOR (LAT):
730776 730787

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	RIVER MILES	60	STATIONS			
TIME	EARTH	STATION TIME	YMDL	60	STATIONS			
COPPER IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	600	OBS			RANGIA CUNEATA
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	600	OBS			RANGIA CUNEATA
CADMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	600	OBS			RANGIA CUNEATA
SIZE ANALYSIS	SEDIMENT	SETTLING/VISUAL	PERCENT SAND, SILT, CLAY	60	OBS			
LENGTH OF BENTHIC ANIMALS	BOTTOM	DIRECT	CENTIMETERS	600	OBS			RANGIA CUNEATA
BIOMASS OF BENTHIC ANIMALS	BOTTOM	WET WEIGHT	GRAMS	600	OBS			RANGIA CUNEATA

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NAME	60 OBS			RANGIA CUNEATA

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, LOWER CHESAPEAKE BAY, VIRGINIA

ABSTRACT:
A REPORT OF BIOTA DISTRIBUTION IN THE LOWER CHESAPEAKE BAY. TAXONOMIC LISTS OF BENTHIC ANIMALS, BENTHIC PLANTS, PHYTOPLANKTON, PELAGIC FISH, MICROBIOTA, MAMMALS, BIRDS, REPTILES, AND AMPHIBIANS.

DATA AVAILABILITY:

PLATFORM TYPES:

ARCHIVE MEDIA:
REPORTS
10 PARAMETERS, 3111 OBSERVATIONS.

FUNDING:

INVENTORY:

PUBLICATIONS:
SPECIAL SCIENTIFIC REPORT NO 65 REPORT INCLUDES COMMENTS ON THE DISTRIBUTION OF EACH SPECIES, LITERATURE CITATIONS, COMMON NAMES, INDEX

CONTACT:
LIBRARIAN 703-642-2111
VIRGINIA INSTITUTE OF MARINE SCIENCE
GLOUCESTER POINT VIRGINIA USA 23062

GRID LOCATOR (LAT):
730766 730765 730776 730775

014

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATIONS	4	STATIONS			LOCATION OCCURRENCE OF EACH SPECIES NOTED
TAXONOMIC LIST OF BENTHIC ANIMALS	BOTTOM	KEY	NAMED AND LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED	1005	OBS			FREE LIVING INVERTEBRATES INCLUDED
TAXONOMIC LIST OF PHYTOPLANKTON	WATER	KEY	NAMED AND LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED	1171	OBS			NUMBER INCLUDES HIGHER BENTHIC PLANTS AND PHYTOPLANKTON
TAXONOMIC LIST	WATER	KEY	NAMED AND	286	OBS			NUMBER INCLUDES

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
OF PELAGIC FISH			LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED					PELAGIC AND DEMERSAL FISH
TAXONOMIC LIST OF DEMERSAL FISH	WATER	KEY	NAMED AND LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED	286	OBS			NUMBER INCLUDES PELAGIC AND DEMERSAL FISH
TAXONOMIC LIST OF MICROBIOTA	WATER	KEY	NAMED AND LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED	25	OBS			
TAXONOMIC LIST OF MICROBIOTA	SEDIMENT	KEY	NAMED AND LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED	25	OBS			
TAXONOMIC LIST OF MAMMALS	WATER	KEY	NAMED AND LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED	41	OBS			MAMMALS OF WATER WETLANDS AND BARRIER ISLANDS
TAXONOMIC LIST OF BIRDS	AIR	KEY	NAMED AND LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED	220	OBS			
TAXONOMIC LIST OF REPTILES	LAND	KEY	NAMED AND LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED	59	OBS			COASTAL PLAIN OF VA AND MD
TAXONOMIC LIST OF AMPHIBIANS	WATER	KEY	NAMED AND LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED	43	OBS			COASTAL PLAIN OF VA AND MD

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, CHESAPEAKE BAY, MARYLAND, CALVERT CLIFFS

ABSTRACT:
DATA SHEETS OF RADIOACTIVITY STUDIES OF SEDIMENTS AT CALVERT CLIFFS, CHESAPEAKE BAY, VIRGINIA. STUDIES INCLUDED SPECIES DETERMINATIONS AND MEASUREMENTS OF BETA ACTIVITY OF BENTHIC PLANTS AND PELAGIC AND DEMERSAL FISH, AND STUDIES OF SALINITY, PH, AND TURBIDITY. SAMPLING HAS BEEN DONE FOUR TIMES/YEAR AT SIX STATIONS SINCE NOVEMBER 1971.

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
DATA SHEETS
12 PARAMETERS, 818 OBSERVATIONS, AT 6 STATIONS.

FUNDING:

INVENTORY:

PUBLICATIONS:
DATA TO BALTIMORE GAS AND ELECTRIC DATA BANK

CONTACT:
DENNIS BURTON 301-274-3194
BENEDICT ESTUARINE LABORATORY
BENEDICT MARYLAND USA 20612

GRID LOCATOR (LAT):
730786

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	6	STATIONS	4/YEAR		
TIME	EARTH	STATION TIME	YMDL	72	STATIONS	4/YEAR		
PH	WATER	SPECIFIC ION ELECTRODE	UNITS	72	OBS	4/YEAR	SURFACE AND BOTTOM	
SALINITY	WATER	CONDUCTIVITY	PARTS PER THOUSAND	72	OBS	4/YEAR	SURFACE AND BOTTOM	
LIGHT ATTENUATION	WATER	SPECTROPHOTOMETRY	PARTS PER MILLION	72	OBS	4/YEAR	SURFACE AND BOTTOM	
BETA ACTIVITY	SEDIMENT	PLANCHET GAS FLOW COUNTER	PICOCURIES PER GRAM	126	OBS	4/YEAR	SURFACE AND BOTTOM	ACTIVITY MEASURED RELATIVE TO CESIUM 137
BETA ACTIVITY IN BENTHIC	BOTTOM	PLANCHET GAS FLOW COUNTER	PICOCURIES PER GRAM	100	OBS	4/YEAR	BOTTOM	BLUE CRABS, OYSTERS AND

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
ANIMALS								VARIOUS OTHER ORGANISMS
BETA ACTIVITY IN PELAGIC FISH	WATER	PLANCHET GAS FLOW COUNTER	PICOCURIES PER GRAM	120	OBS	4/YEAR	SURFACE AND BOTTOM	WHITE PERCH, BLUE FISH, STRIPED BASS, SPOT, BAY ANCHOVY, MEMDIA, VARIANCE COMPUTED BETWEEN AND WITHIN SPECIES
BETA ACTIVITY IN DEMERSAL FISH	WATER	PLANCHET GAS FLOW COUNTER	PICOCURIES PER GRAM	120	OBS	4/YEAR	SURFACE AND BOTTOM	WHITE PERCH, BLUE FISH, STRIPED BASS, SPOT, BAY ANCHOVY, MEMDIA, VARIANCE COMPUTED BETWEEN AND WITHIN SPECIES
BETA ACTIVITY IN BENTHIC PLANTS	BOTTOM	PLANCHET GAS FLOW COUNTER	PICOCURIES PER GRAM	120	OBS	4/YEAR	BOTTOM	ULVA SP, MONOSTOMA SP, ECTEROMORPHA SP, ECTOCARPUS SP
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NAME	100	OBS	4/YEAR	BOTTOM	BLUE CRABS, OYSTERS AND VARIOUS OTHER ORGANISMS
SPECIES DETERMINATION OF PELAGIC FISH	WATER	KEY	NAME	6	OBS	4/YEAR	SURFACE AND BOTTOM	WHITE PERCH, BLUE FISH, STRIPED BASS, SPOT, BAY ANCHOVY, MEMDIA, VARIANCE COMPUTED BETWEEN AND WITHIN SPECIES
SPECIES DETERMINATION OF DEMERSAL FISH	WATER	KEY	NAME	6	OBS	4/YEAR	SURFACE AND BOTTOM	WHITE PERCH, BLUE FISH, STRIPED BASS, SPOT, BAY ANCHOVY, MEMDIA, VARIANCE COMPUTED BETWEEN AND WITHIN SPECIES
SPECIES DETERMINATION	BOTTOM	KEY	NAME	4	OBS	4/YEAR	BOTTOM	ULVA SP, MONOSTOMA SP,

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
OF BENTHIC PLANTS							ECTEROMORPHA SP, ECTOCARPUS SP

DATA COLLECTED: JANUARY 1969 TO AUGUST 1969 RECEIVED: JULY 13, 1973

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, CHESAPEAKE BAY, VIRGINIA, ELIZABETH RIVER

ABSTRACT:
STUDY OF BENTHIC MACROINVERTEBRATE COMMUNITIES OF ELIZABETH RIVER, HAMPTON ROADS, VIRGINIA AS INDICATORS OF POLLUTION. BIOLOGICAL INDEX OF DOMINANCE, DENSITY, FREQUENCY, DISPERSAL, DOMINANCE AFFINITY COMPUTED.

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
REPORTS
12 STATIONS; 36 SAMPLES AND MEASUREMENTS TAKEN

FUNDING:

INVENTORY:

PUBLICATIONS:
VIMS THESIS 1971, M D RICHARDSON

CONTACT:
LIBRARIAN 804-642-2111
VIRGINIA INSTITUTE OF MARINE SCIENCE
GLOUCESTER POINT VIRGINIA USA 23062

GRID LOCATOR (LAT):
730766

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	12 STATIONS			
TIME	EARTH	STATION TIME	YMDL	36 STATIONS			
DISSOLVED OXYGEN GAS	WATER	TITRATION	MILLIGRAMS PER LITER	12 OBS		BOTTOM	
SIZE ANALYSIS	SEDIMENT	SETTLING/VISUAL	PERCENT SILT, CLAY SAND	36 OBS		BOTTOM	SAMPLES OBTAINED WITH A 0.06 M SQ PETERSON GRAB AND A 0.07 M SQ VAN VEEN GRAB
DEPTH	WATER	WIRE LENGTH	METERS	36 OBS			
COUNT OF BENTHIC	BOTTOM	VISUAL	NUMBER OF INDIVIDUALS	36 OBS		BOTTOM	SAMPLES OBTAINED WITH

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
ANIMALS			PER M SQ PER STATION PER SAMPLING PERIOD					A 0.06 M SQ PETERSON GRAB AND A 0.07 M SQ VAN VEEN GRAB
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NUMBER OF SPECIES PER STATION, NUMBER OF INDIVIDUALS PER SPECIES PER SAMPLING PERIOD	36	OBS		BOTTOM	BIOLOGICAL INDEX OF DOMINANCE, DENSITY, FREQUENCY, DISPERSAL, DOMINANCE AFFINITY COMPUTED
DIVERSITY INDEX OF BENTHIC ANIMALS	BOTTOM	SHANNON-WEAVER	NUMBERS	36	OBS		BOTTOM	

020

DATA COLLECTED: JANUARY 1972 TO JANUARY 1973 RECEIVED: JULY 31, 1973

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, DELAWARE BAY, DELAWARE

ABSTRACT:
SURVEY OF TRACE METAL CONCENTRATIONS IN SEDIMENTS COLLECTED FROM THE DELAWARE BAY. REPORT CHARACTERIZES TRACE METALS TO THEIR PRIMARY SOURCE AND THE MAJOR FACTOR INFLUENCING THEIR DISTRIBUTION

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
REPORTS
46 PAGES, MAPS ON THE DISTRIBUTION OF TRACE METALS

FUNDING:

INVENTORY:

PUBLICATIONS:
DELAWARE BAY REPORT SERIES VOL 3 REPORT NO 2 UNIV OF DEL, NEWARK, DEL

CONTACT:
FREDERICK BOPP 302-738-2842
COLLEGE OF MARINE STUDIES
UNIVERSITY OF DELAWARE
NEWARK DELAWARE USA 19711

GRID LOCATOR (LAT):
730785 730795 730794 730784

021

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	DMT	92 STATIONS			
TIME	EARTH	STATION TIME	YML	1 STATIONS			
IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92 OBS			63 MICRON SEDIMENT FRACTION, HCL EXTRACTION
MAGNESIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92 OBS			63 MICRON SEDIMENT FRACTION, HCL EXTRACTION
ZINC	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92 OBS			63 MICRON SEDIMENT FRACTION, HCL EXTRACTION

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
CHROMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	OBS			63 MICRON SEDIMENT FRACTION, HCL EXTRACTION
COPPER	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	OBS			63 MICRON SEDIMENT FRACTION, HCL EXTRACTION
LEAD	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	OBS			63 MICRON SEDIMENT FRACTION, HCL EXTRACTION
CADMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	OBS			63 MICRON SEDIMENT FRACTION, HCL EXTRACTION
NICKEL	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	OBS			63 MICRON SEDIMENT FRACTION, HCL EXTRACTION
STRONTIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	OBS			63 MICRON SEDIMENT FRACTION, HCL EXTRACTION
MERCURY	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER BILLION	92	OBS			63 MICRON SEDIMENT FRACTION, HCL EXTRACTION

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, LOWER CHESAPEAKE BAY, VIRGINIA

ABSTRACT:
WATER QUALITY AND HYDROGRAPHIC SURVEY OF THE CHESAPEAKE BAY ON TRANSECTS FROM THE BAY MOUTH TO ANNAPOLIS, MD.

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
DATA SHEETS
20 STATIONS

FUNDING:

INVENTORY:

PUBLICATIONS:

CONTACT:
DONALD ADAMS 804-489-8000
OLD DOMINION UNIVERSITY
INSTITUTE OF OCEANOGRAPHY
NORFOLK VIRGINIA USA 23508

GRID LOCATOR (LAT):
730776 730775

023

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	20 STATIONS			
TIME	EARTH	STATION TIME	YMDL	1 STATIONS			
TEMPERATURE	WATER	NON-REVERSING THERMOMETER	DEG C	66 OBS		SURFACE TO BOTTOM	
SALINITY	WATER	CONDUCTIVITY	PARTS PER THOUSAND	66 OBS		SURFACE TO BOTTOM	
PH	WATER	SPECIFIC ION ELECTRODE	PH UNITS	66 OBS		SURFACE TO BOTTOM	
DISSOLVED OXYGEN GAS	WATER	TITRATION	MILLIGRAMS PER LITER	66 OBS		SURFACE TO BOTTOM	PERCENT SATURATION COMPUTED
ORTHOPHOSPHATE	WATER	SPECTROPHOTOMETRY	MICROGRAM ATOMS PER LITER	66 OBS		SURFACE TO BOTTOM	
NITRATE	WATER	SPECTROPHOTOMETRY	MICROGRAM ATOMS PER LITER	66 OBS		SURFACE TO BOTTOM	
PARTICULATE	WATER	MEMBRANE	MILLIGRAMS PER	66 OBS		SURFACE TO	

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
WATTER		FILTRATION	LITER			BOTTOM	
DEPTH	WATER	WIRE LENGTH	FEET	66 OBS			DEPTH OF SAMPLE
BIOCHEMICAL OXYGEN DEMAND	WATER	TITRATION	MILLIGRAMS PER LITER	66 OBS		SURFACE TO BOTTOM	
CHEMICAL OXYGEN DEMAND	WATER	TITRATION	MILLIGRAMS PER LITER	66 OBS		SURFACE TO BOTTOM	
COUNT OF MICROBIOTA	WATER	VISUAL	NUMBER PER 100 MILLILITERS	66 OBS		SURFACE TO BOTTOM	FECAL COLIFORM
METHANE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPHY	ML X10 -5 PER LITER	60 OBS		SURFACE TO BOTTOM	

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DATA COLLECTED: 1964 TO OCTOBER 1965

RECEIVED: JULY 31, 1973

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, CHESAPEAKE BAY, VIRGINIA, YORK RIVER

ABSTRACT:
FECAL MATERIAL VOIDED BY 71 INVERTEBRATE SPECIES IS DESCRIBED. PELLET MEASUREMENTS RELATED TO SIZE OF ANIMALS. PELLET CHARACTERISTICS DESCRIBED ARE CROSS-SECTIONAL SHAPE, SCULPTURE, DIFFERENTIATION, COMPOSITION AND SHAPE.

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
REPORTS
48 PAGES; 3 PLATES

FUNDING:

INVENTORY:

PUBLICATIONS:
FECAL PELLETS OF COMMON INVERTEBRATES OF LOWER YORK RIVER AND LOWER CHESAPEAKE BAY, VIRGINIA, J N KRAEUTER, D S HAVEN, 1970, CHES SCI, 11 (3): 159-173, VIMS THESIS, 1966, J N KRAEUTER

CONTACT:
LIBRARIAN 804-642-2111
VIRGINIA INSTITUTE OF MARINE SCIENCE
GLOUCESTER POINT VIRGINIA USA 23062

GRID LOCATOR (LAT):
730776

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	2 STATIONS			COLLECTION AREAS OF LOWER YORK RIVER AND HAMPTON ROADS CONSIDERED AS TWO STATIONS
TIME	EARTH	STATION TIME	YL	2 STATIONS			COLLECTION AREAS OF LOWER YORK RIVER AND HAMPTON ROADS CONSIDERED AS TWO STATIONS
FECAL ANALYSIS	BOTTOM	VISUAL	VARIABLE	71 OBS			FECAL PELLET

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
OF BENTHIC ANIMALS							ANALYSIS OF 71 INVERTEBRATE SPECIES; SIZE, SHAPE AND COMPOSITION NOTED
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NAMES	71 OBS			71 SPECIES
TAXONOMIC LIST OF BENTHIC ANIMALS	BOTTOM	KEY	TAXA	1 OBS			ANNOTATED TAXONOMIC LIST, COMMENTS ON GENERAL DESCRIPTION OF FECAL PELLETS, SIZE OF ANIMAL

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, CHESAPEAKE BAY, VIRGINIA, CRANEY ISLAND, BUCKROE BEACH

ABSTRACT:
COMPARATIVE STUDY OF BIOTIC AND ABIOTIC PARAMETERS OF CRANEY ISLAND AND BUCKROE BEACH AREAS. SURVEY OF FISH, INVERTEBRATES AND HEAVY METALS

DATA AVAILABILITY.

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
DATA SHEETS
120 SAMPLING EFFORTS

FUNDING:
US ARMY CORPS OF ENGINEERS

INVENTORY:

PUBLICATIONS:
REPORT SENT TO U S ARMY CORPS OF ENGINEERS

CONTACT:
RAY BIRDSONG 804-489-8000
OLD DOMINION UNIVERSITY
INSTITUTE OF OCEANOGRAPHY
NORFOLK VIRGINIA USA 23508

GRID LOCATOR (LAT):
730776 730 36

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	2	STATIONS			
TIME	EARTH	STATION TIME	YMDHL	12	STATIONS	MONTHLY		
SALINITY	WATER	CONDUCTIVITY	PARTS PER THOUSAND	120	OBS	MONTHLY	SURFACE	
SALINITY	WATER	HYDROMETER	PARTS PER THOUSAND	120	OBS	MONTHLY	SURFACE	
TEMPERATURE	WATER	NON-REVERSING THERMOMETER	DEG C	120	OBS	MONTHLY	SURFACE	
SPECIES DETERMINATION OF DEMERSAL FISH	WATER	KEY	NUMBER OF SPECIES PER SAMPLE, NUMBER OF INDIVIDUALS PER SPECIES	120	OBS	MONTHLY	SURFACE	10 FOOT OTTER TRAWL, 1 INCH MESH, BEACH SEINE

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
COUNT OF DEMERSAL FISH	WATER	VISUAL	NUMBER OF INDIVIDUALS PER STATION	120	OBS	MONTHLY	SURFACE	
BIOMASS OF DEMERSAL FISH	WATER	WET WEIGHT	WEIGHT PER STATION	120	OBS	MONTHLY	SURFACE	10 FOOT OTTER TRAWL, 1 INCH MESH, BEACH SEINE
LENGTH OF DEMERSAL FISH	WATER	STANDARD LENGTH	MILLIMETERS	120	OBS	MONTHLY	SURFACE	SUBSAMPLE FROM EACH TRAWL
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NUMBER OF SPECIES PER SAMPLE, NUMBER OF INDIVIDUALS PER SPECIES	120	OBS	MONTHLY	BOTTOM	BAG DREDGE, OTTER TRAWL, PETERSON GRAB
COUNT OF BENTHIC ANIMALS	BOTTOM	VISUAL	NUMBER OF INDIVIDUALS PER STATION	120	OBS	MONTHLY	BOTTOM	
CADMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	4	OBS			VARIETY OF SPECIES OF FISH, 4 SAMPLES PER YEAR
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	4	OBS			VARIETY OF SPECIES OF FISH, 4 SAMPLES PER YEAR
LEAD IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	4	OBS			VARIETY OF SPECIES OF FISH, 4 SAMPLES PER YEAR
MERCURY IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	4	OBS			VARIETY OF SPECIES OF FISH, 4 SAMPLES PER YEAR

DATA COLLECTED: JUNE 1972 TO PRESENT

RECEIVED: AUGUST 08, 1973

PROJECTS:

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, LOWER CHESAPEAKE BAY, VIRGINIA, LYNNHAVEN BAY, ELIZABETH RIVER

ABSTRACT:
SURVEY OF HYDROGRAPHIC AND BIOLOGICAL PARAMETERS OF LOWER CHESAPEAKE BAY, LYNNHAVEN BAY AND ELIZABETH RIVER, VA. DATA COLLECTED IN CONJUNCTION WITH CONTRACT WORK FOR CONTRACTORS AND LAND DEVELOPERS

DATA AVAILABILITY:
ON APPROVAL FROM CONTRACTOR

PLATFORM TYPES:

ARCHIVE MEDIA:
DATA SHEETS
200 STATIONS

FUNDING:

INVENTORY:

PUBLICATIONS:

CONTACT:
PAUL KIRK 804-489-8000
OLD DOMINION UNIVERSITY
INSTITUTE OF OCEANOGRAPHY
NORFOLK VIRGINIA USA 23508

GRID LOCATOR (LAT):
730776 730775 730766

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	200 STATIONS			
TIME	EARTH	STATION TIME	YMDL	200 STATIONS			
SPECIES DETERMINATION OF BENTHIC PLANTS	LAND	KEY	NUMBER OF INDIVIDUALS PER SPECIES	200 OBS			MARSH PLANTS
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NUMBER OF INDIVIDUALS PER SPECIES	200 OBS			
COUNT OF BENTHIC PLANTS	LAND	VISUAL	NUMBER PER ACRE	200 OBS			
COUNT OF BENTHIC	BOTTOM	VISUAL	NUMBER PER ACRE	200 OBS			

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
NIMALS								
BIOMASS OF BENTHIC PLANTS	LAND	DRY WEIGHT	POUNDS PER ACRE	200	OBS			
BIOMASS OF BENTHIC ANIMALS	BOTTOM	DRY WEIGHT	POUNDS PER ACRE	200	OBS			
SALINITY	WATER	HYDROMETER	PARTS PER THOUSAND	14	OBS		SURFACE AND BOTTOM	LYNNHAVEN AREA
TEMPERATURE	WATER	NON-REVERSING THERMOMETER	DEG C	14	OBS		SURFACE AND BOTTOM	LYNNHAVEN AREA
DISSOLVED OXYGEN GAS	WATER	TITRATION	MILLIGRAMS PER LITER	14	OBS		SURFACE AND BOTTOM	LYNNHAVEN AREA
PH	WATER	SPECIFIC ION ELECTRODE	PH UNITS	14	OBS		SURFACE AND BOTTOM	LYNNHAVEN AREA
COUNT OF MICROBIOTA	WATER	VISUAL	CULTURE GROWTH (MPN)	14	OBS		SURFACE AND BOTTOM	COLIFORM, LYNNHAVEN AREA
ORTHOPHOSPHATE	WATER	SPECTROPHOTOMETRY	MILLIGRAMS PER LITER	14	OBS		SURFACE AND BOTTOM	LYNNHAVEN AREA
NITRATE	WATER	SPECTROPHOTOMETRY	MILLIGRAMS PER LITER	14	OBS		SURFACE AND BOTTOM	LYNNHAVEN AREA
SECCHI DISC DEPTH	WATER	AVERAGE DEPTH	FEET	14	OBS			LYNNHAVEN AREA
SIZE ANALYSIS	SEDIMENT	SIEVE	PERCENT COMPOSITION	7	OBS		BOTTOM	LYNNHAVEN AREA

030

PROJECTS:
CHESTER RIVER STUDY

GENERAL GEOGRAPHIC AREA:
U.S., COASTAL, NORTH ATLANTIC, CHESAPEAKE BAY, MARYLAND, CHESTER RIVER

ABSTRACT:
THIS PORTION OF THE CHESTER RIVER, (MARYLAND) STUDY WAS CONCERNED WITH THE PRESENCE OF CHLORINATED HYDROCARBONS IN THE BIOTA AND SEDIMENT IN THE RIVER. RESEARCH EFFORTS WERE DIRECTED TO DETERMINE THE EXISTING LEVELS OF CHLORINATED HYDROCARBONS. THEIR SOURCES, SINKS AND FLUCTUATIONS. CHLORINATED HYDROCARBONS FOUND IN SEDIMENT WERE CORRELATED TO MEAN GRAIN SIZE DIAMETER AND WITH RESPECT TO DISTRIBUTION ALONG THE MAIN RIVER COURSE.

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
DATA SHEETS
150 SEDIMENT SAMPLES; 100 SAMPLES OF THE BIOTA

FUNDING:
WESTINGHOUSE, MARYLAND DEPT OF NATURAL RESOURCES

INVENTORY:

PUBLICATIONS:
CHESTER RIVER STUDY, WESTINGHOUSE, VOL 1, 2, 3

CONTACT:
THOMAS MUNSON 301-765-1000
WESTINGHOUSE ELECTRIC CORPORATION
OCEAN RESEARCH LABORATORY, BOX 1771
ANNAPOLIS MARYLAND USA 21404

GRID LOCATOR (LAT):
730796

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	25 STATIONS	QUARTERLY		
TIME	EARTH	STATION TIME	YMDL	150 STATIONS	25 STATIONS ON A QUARTERLY BASIS		
LINDANE	SEDIMENT	GAS CHROMATOGRAPHY	PARTS PER BILLION	150 OBS	25 STATIONS ON A QUARTERLY BASIS	BOTTOM	CHLORINATED HYDROCARBONS
ALDRIN	SEDIMENT	GAS CHROMATOGRAPHY	PARTS PER BILLION	150 OBS	25 STATIONS ON A QUARTERLY BASIS	BOTTOM	

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
DIELDRIN	SEDIMENT	GAS CHROMATOGRAPH Y	PARTS PER BILLION	150 OBS	25 STATIONS ON A QUARTERLY BASIS	BOTTOM	
ENDRIN	SEDIMENT	GAS CHROMATOGRAPH Y	PARTS PER BILLION	150 OBS	25 STATIONS ON A QUARTERLY BASIS	BOTTOM	
DDT	SEDIMENT	GAS CHROMATOGRAPH Y	PARTS PER BILLION	150 OBS	25 STATIONS ON A QUARTERLY BASIS	BOTTOM	
DDD	SEDIMENT	GAS CHROMATOGRAPH Y	PARTS PER BILLION	150 OBS	25 STATIONS ON A QUARTERLY BASIS	BOTTOM	
DDE	SEDIMENT	GAS CHROMATOGRAPH Y	PARTS PER BILLION	150 OBS	25 STATIONS ON A QUARTERLY BASIS	BOTTOM	
TOXAPHENE	SEDIMENT	GAS CHROMATOGRAPH Y	PARTS PER BILLION	150 OBS	25 STATIONS ON A QUARTERLY BASIS	BOTTOM	
CHLORDANE	SEDIMENT	GAS CHROMATOGRAPH Y	PARTS PER BILLION	150 OBS	25 STATIONS ON A QUARTERLY BASIS	BOTTOM	
POLYCHLORINATED BIPHENYLS	SEDIMENT	GAS CHROMATOGRAPH Y	PARTS PER BILLION	150 OBS	25 STATIONS ON A QUARTERLY BASIS	BOTTOM	
LINDANE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100 OBS			MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTREA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH
ALDRIN IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100 OBS			MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTREA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH
DIELDRIN IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100 OBS			MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
							EA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH
ENDRIN IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	OBS		MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR EA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH
DDT IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	OBS		MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR EA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH
DDD IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	OBS		MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR EA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH
DDE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	OBS		MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR

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PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
							OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH
TOXAPHENE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	OBS		MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTREA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH
CHLORDANE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	OBS		MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTREA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH
POLYCHLORINATED BIPHENYLS IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	OBS		MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTREA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH

DATA COLLECTED: JANUARY 1947 TO DECEMBER 1967 RECEIVED: MARCH 28, 1974

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, U.S., COASTAL, LOWER CHESAPEAKE BAY, TRIBUTARIES AND TIDAL CREEKS

ABSTRACT:
ANNUAL POPULATION ASSESSMENTS OF OYSTERS IN THE LOWER CHESAPEAKE BAY AND NUMEROUS TRIBUTARIES HAVE BEEN MADE SINCE 1947. DATA ALSO INCLUDES COUNTS OF OYSTER SPATFALL AT BOTH SEASONAL INTERVALS AND WITHIN SEASON INTERVALS FOR NUMEROUS STATIONS WITHIN THESE AREAS. OCCURRENCE, ABUNDANCE AND DISTRIBUTION OF PREDATORS, FOULING ORGANISMS, SCAVENGERS AND OTHER ASSOCIATES OF OYSTER BED COMMUNITIES IS AVAILABLE BUT NOT SUMMARIZED EXCEPT GENERALLY. DATA ON PARASITES SUCH AS PEA CRABS, SACCULINIDS, MUD CRABS (PARASITIZED) IS AVAILABLE BUT NOT EASILY ACCESSIBLE.

DATA AVAILABILITY:

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
DATA SHEETS
FIFTEEN YEARLY FILES EACH WITH 200 DATA SHEETS; FIFTEEN YEARLY SUMMARIES EACH APPROXIMATELY FIVE PAGES FOR SPATFALL DATA

FUNDING:
STATE OF VIRGINIA

INVENTORY:

PUBLICATIONS:
NUMEROUS PUBLICATIONS BASED ON THIS WORK OVER THE PAST 20 YEARS

CONTACT:
DR. JAY D. ANDREWS 804 642 2111 X67
VIRGINIA INSTITUTE OF MARINE SCIENCE
GLOUCESTER POINT VIRGINIA USA 23062

GRID LOCATOR (LAT):
730766 730776 730775

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	170	STATIONS			50 OYSTER COUNT STATIONS, 120 SPATFALL COUNT STATIONS
TIME	EARTH	STATION TIME	YMD	6150	OBS			
COUNT OF BENTHIC ANIMALS	BOTTOM	VISUAL	NUMBER OF OYSTERS PER BUSHEL	1050	OBS	ANNUAL		ANNUAL FALL POPULATION ASSESMENTS; OYSTERS CLASSED AS MARKET, SMALL,

035

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
COUNT OF ZOOPLANKTON	WATER	VISUAL	NUMBER OF OYSTERS PER BUSHEL	1500 OBS	ONE MONTH TO ONE YEAR		YEARLING, SPAT SEASONAL SETTING OF OYSTER SPAT; DATA FOR THESE YEARS ONLY: 1947-1953, 1958, 1961-1967; SHELLBAG TECHNIQUE
COUNT OF PERIPHYTON ON BENTHIC ANIMALS	BOTTOM	VISUAL	COUNT PER SHELL FACE	3600 OBS	WEEKLY		1 JUNE TO 1 OCTOBER OF EACH YEAR ONLY; SHELLBAGS, SHELLSTRINGS, AND SETTING PLATES USED

DATA COLLECTED: JANUARY 1,[illegible] TO DECEMBER 972 RECEIVED: JUNE 18, 1974

PROJECTS:

GENERA GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., CHESAPEAKE BAY, EASTERN SHORE, YORK, RAPPAHANNOCK, JAMES, ELIZABETH RIVERS, LYNNHAVEN BAY

ABSTRACT:
RESULTS OF PESTICIDE ANALYSES PERFORMED BY THE VIRGINIA INSTITUTE OF MARINE SCIENCE AND THE VIRGINIA STATE WATER CONTROL BOARD ON OYSTERS OBTAINED FROM THE LOWER CHESAPEAKE BAY AND TRIBUTARIES ARE ON FILE AT THE BUREAU OF SHELLFISH SANITATION (ANALYSES WERE PERFORMED BY THE VIRGINIA INSTITUTE OF MARINE SCIENCE AND THE VA. STATE WATER CONTROL BOARD)

DATA AVAILABILITY:
GENERALLY AVAILABLE TO ANY CITIZEN OR AGENCY IN THE COMMONWEALTH UPON DECISION OF THE DIRECTOR

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
DATA SHEETS
2 DATA SHEETS

FUNDING:
STATE OF VIRGINIA

INVENTORY:

PUBLICATIONS:

CONTACT:
CLOYDE W. WILEY, DIRECTOR 804 770 7937
BUREAU OF SHELLFISH SANITATION
JAMES MADISON BLDG., 109 GOVERNOR STREET
RICHMOND VIRGINIA USA 23219

GRID LOCATOR (LAT):
730776 730766 730775

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	10	STATIONS			
TIME	EARTH	STATION TIME	YMD	680	OBS	MONTHLY UNTIL 1970, QUARTERLY ~~FROM 1971-~~ 1972		1 OBS PER ~~STATION~~
DDT IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PPM	680	OBS	MONTHLY UNTIL 1970, QUARTERLY FROM 1971-1972		WET WEIGHT IN OYSTER FLESH
DDD IN BIO	WATER	GAS CHROMATOGRAPH	PPM	680	OBS	MONTHLY UNTIL		WET WEIGHT IN

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PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
MATERIAL		Y				1970, QUARTERLY FROM 1971-1972		OYSTER FLESH
DDE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PPM	680	OBS	MONTHLY UNTIL 1970, QUARTERLY FROM 1971-1972		WET WEIGHT IN OYSTER FLESH
DIELDRIN IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PPM	680	OBS	MONTHLY UNTIL 1970, QUARTERLY FROM 1971-1972		WET WEIGHT IN OYSTER FLESH

DATA COLLECTED: JUNE 1974 TO PRESENT RECEIVED: JUNE 18, 1974

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., CHESAPEAKE BAY, JAMES, YORK, POTOMAC, ELIZABETH RIVERS, WILLOBY BAY

ABSTRACT:
SAMPLES OF OYSTERS ARE OBTAINED FROM FORTY STATIONS IN THE LOWER CHESAPEAKE BAY AND ITS TRIBUTARIES AND ANALYSED FOR CU, CD, ZN, HG AT SIX MONTH INTERVALS. THE PROGRAM ATTEMPTS TO MONITOR SHELLFISH CONTAMINATION IN VIRGINIA WATERS BY HEAVY METALS

DATA AVAILABILITY:
GENERALLY AVAILABLE TO ANY CITIZEN OR AGENCY IN THE COMMONWEALTH UPON DECISION OF THE DIRECTOR

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
DATA SHEETS
100 DATA SHEETS PER YEAR

FUNDING:
VA DEPARTMENT OF HEALTH

INVENTORY:

PUBLICATIONS:

CONTACT:
CLOYDE W. WILEY, DIRECTOR 804 770 7937
BUREAU OF SHELLFISH SANITATION
JAMES MADISON BLDG., 109 GOVERNOR STREET
RICHMOND VIRGINIA USA 23219

GRID LOCATOR (LAT):
730766 730776 730786

039

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	40	STATIONS			
TIME	EARTH	STATION TIME	YMD	160	OBS	TWICE A YEAR		
COPPER IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	160	OBS	TWICE A YEAR		3 OBS PER STATION FROM A MIXTURE OF 10 OYSTERS; WET WEIGHT IN OYSTER TISSUE
CADMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	160	OBS	TWICE A YEAR		3 OBS PER STATION FROM A MIXTURE OF 10 OYSTERS; WET WEIGHT IN

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	160	OBS	TWICE A YEAR		OYSTER TISSUE 3 OBS PER STATION FROM A MIXTURE OF 10 OYSTERS; WET WEIGHT IN OYSTER TISSUE
MERCURY IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	36	OBS	TWICE A YEAR		SAMPLES FROM ONLY 9 STATIONS

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., CHESAPEAKE BAY, EASTERN SHORE, VIRGINIA TIDAL TRIBUTARIES

ABSTRACT:
BIOLOGICAL DATA INCLUDING VARIOUS BACTERIOLOGICAL ANALYSES AND HYDROGRAPHIC DATA ARE OBTAINED FROM SELECTED STATIONS ALONG THE TIDAL COASTLINE OF VIRGINIA AT MONTHLY INTERVALS. HISTORIC DATA GOES BACK TO 1925 FOR SOME STATIONS AT INTERVALS RANGING FROM MONTHS TO YEARS. THE INFORMATION IS OBTAINED AS PART OF THE SANITARY SURVEY WHICH MONITORS THE FITNESS OF VIRGINIA TIDAL AREAS FOR OBTAINING SHELLFISH FOR DIRECT MARKETING

DATA AVAILABILITY:
GENERALLY AVAILABLE TO ANY CITIZEN OR AGENCY IN THE COMMONWEALTH UPON DECISION OF THE DIRECTOR

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
DATA SHEETS
6 FILE CABINET DRAWERS OF DATA SHEETS

FUNDING:
VIRGINIA DEPARTMENT OF HEALTH

INVENTORY:

PUBLICATIONS:

CONTACT:
CLOYDE W. WILEY, DIRECTOR 804 770 7937
BUREAU OF SHELLFISH SANITATION
JAMES MADISON BLDG., 109 GOVERNOR STREET
RICHMOND VIRGINIA USA 23219

GRID LOCATOR (LAT):
730776 730766 730775

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	4000	STATIONS			THE SHORELINE OF VIRGINIA HAS BEEN DIVIDED INTO 107 AREAS AND EACH OF THESE AREAS CONTAIN A NUMBER OF STATIONS
TIME	EARTH	STATION TIME	YMD	75000	OBS			MONTHLY SINCE 1972; QUARTERLY

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
								SINCE 1969; VARIOUS INTERVALS FROM MONTHS TO YEARS DEPENDING ON AREA AND STATION BEFORE 1969
COUNT OF MICROBIOTA	WATER	VISUAL	MPN	75000	OBS			1 OBS PER STATION FOR TOTAL COLIFORM DATING BACK TO 1925; FECAL COLIFORM DATING BACK TO APPROXIMATELY 1964; FECAL STREPTOCOCCI MEASURED SINCE 1972 IN ONLY THOSE AREAS WHICH SHOWED HIGH COLIFORM COUNTS
TEMPERATURE	WATER	VARIOUS	DEG F	20000	OBS	1 TO 5 IN EACH AREA	SURFACE	MONTHLY SINCE 1972; QUARTERLY SINCE 1969; VARIOUS INTERVALS FROM MONTHS TO YEARS DEPENDING ON AREA AND STATION BEFORE 1969
SALINITY	WATER	CONDUCTIVITY	PPT	20000	OBS	1 TO 5 IN EACH AREA	SURFACE	MONTHLY SINCE 1972; QUARTERLY SINCE 1969; VARIOUS INTERVALS FROM MONTHS TO YEARS DEPENDING ON AREA AND STATION BEFORE 1969
WEATHER	AIR	VISUAL	TYPE	10000	OBS	1 TO 5 IN EACH AREA		ALSO INCLUDED ARE WIND SPEED AND DIRECTION ESTIMATES AND TIDAL DIRECTION AND STAGE ESTIMATES

PROJECTS:

GENERA GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., CHESAPEAKE BAY, EASTERN SHORE, VIRGINIA TIDAL TRIBUTARIES

ABSTRACT:
THE TIDAL SHORELINE OF VIRGINIA HAS BEEN DIVIDED INTO 107 AREAS AND EVERY PROPERTY WITHIN THE WATERSHED OF EACH AREA IS VISITED BY INSPECTORS TO DETERMINE SOURCES OF WASTE WHICH MIGHT CONTRIBUTE TO SURFACE WATER POLLUTION. EACH AREA WILL BE SURVEYED AT SIX YEAR INTERVALS. HISTORICALLY THE SURVEY WORK WAS LESS FREQUENT, AND THE ENTIRE WATERSHED WAS NOT SURVEYED

DATA AVAILABILITY:
GENERALLY AVAILABLE TO ANY CITIZEN OR AGENCY IN THE COMMONWEALTH UPON DECISION OF THE DIRECTOR

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
DATA SHEETS
6 FILE CABINET DRAWERS OF DATA SHEETS

FUNDING:
VIRGINIA DEPARTMENT OF HEALTH

INVENTORY:

PUBLICATIONS:

CONTACT:
CLOYDE W. WILEY, DIRECTOR 804 770 7937
BUREAU OF SHELLFISH SANITATION
JAMES MADISON BLDG., 109 GOVERNOR STREET
RICHMOND VIRGINIA USA 23219

GRID LOCATOR (LAT):
730776 730766 730775

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	107	STATIONS			THE TIDAL SHORELINE OF VIRGINIA HAS BEEN DIVIDED INTO 107 SECTIONS WITH EACH SECTION BEING A STATION
TIME	EARTH	STATION TIME	YMD	300	OBS			HISTORICALLY, EACH SECTION OF SHORELINE

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
							WAS SURVEYED INFREQUENTLY, FROM 1973 ON EACH AREA WILL BE SURVEYED AT SIX YEAR INTERVALS
LAND USE	LAND	VISUAL	POLLUTION SOURCE CATEGORY	100000 OBS			EACH PROPERTY WITHIN THE WATERSHED OF EACH SECTION OF SHORELINE IS VISITED BY INSPECTORS AND EACH SOURCE OF WASTE WHICH MIGHT CONTRIBUTE TO SURFACE WATER POLLUTION IS NOTED AND EVALUATED

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., CHESAPEAKE BAY, EASTERN SHORE, VA TIDAL RIVERS AND BAYS

ABSTRACT:
OYSTERS OBTAINED AT SIX MONTH INTERVALS FROM STATIONS LOCATED IN TIDAL TRIBUTARIES AND BAYS OF VIRGINIA ARE ANALYSED FOR DDT, DDD, DDE, DIELDRIN, PCB. THE DATA IS USED TO MONITOR SHELLFISH CONTAMINATION BY THE CHEMICALS.

DATA AVAILABILITY:
GENERALLY AVAILABLE TO ANY CITIZEN OR AGENCY IN THE COMMONWEALTH UPON DECISION OF THE DIRECTOR

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
DATA SHEETS
20 DATA SHEETS PER YEAR

FUNDING:
STATE OF VIRGINIA

INVENTORY:

PUBLICATIONS:

CONTACT:
CLOYDE W. WILEY, DIRECTOR 804 770 7937
BUREAU OF SHELLFISH SANITATION
JAMES MADISON BLDG., 109 GOVERNOR STREET
RICHMOND VIRGINIA USA 23219

045

GRID LOCATOR (LAT):
730776 730766 730775

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	18	STATIONS			
TIME	EARTH	STATION TIME	YMD	36	OBS	TWO SAMPLINGS PER YEAR		
DDT IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PPM	36	OBS	TWO SAMPLINGS PER YEAR		14 STATIONS EACH SAMPLED BY ONE ANALYSIS OF A MIXTURE OF 30 OYSTERS FROM EACH STATION; 4 STATIONS EACH SAMPLED BY ONE

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
DDD IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PPM	36 OBS	TWO SAMPLINGS PER YEAR		ANALYSIS OF A MIXTURE OF 10 OYSTERS FROM EACH STATION 14 STATIONS EACH SAMPLED BY ONE ANALYSIS OF A MIXTURE OF 30 OYSTERS FROM EACH STATION; 4 STATIONS EACH SAMPLED BY ONE
DDE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PPM	36 OBS	TWO SAMPLINGS PER YEAR		ANALYSIS OF A MIXTURE OF 10 OYSTERS FROM EACH STATION 14 STATIONS EACH SAMPLED BY ONE ANALYSIS OF A MIXTURE OF 30 OYSTERS FROM EACH STATION; 4 STATIONS EACH SAMPLED BY ONE
DIELDRIN IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PPM	36 OBS	TWO SAMPLINGS PER YEAR		ANALYSIS OF A MIXTURE OF 10 OYSTERS FROM EACH STATION 14 STATIONS EACH SAMPLED BY ONE ANALYSIS OF A MIXTURE OF 30 OYSTERS FROM EACH STATION; 4 STATIONS EACH SAMPLED BY ONE
POLYCHLORINATED BIPHENYLS IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PPM	36 OBS	TWO SAMPLINGS PER YEAR		ANALYSIS OF A MIXTURE OF 10 OYSTERS FROM EACH STATION 14 STATIONS EACH SAMPLED BY ONE ANALYSIS OF A MIXTURE OF 30 OYSTERS FROM EACH STATION;

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
MERCURY IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	100 OBS			IN GUT AND FLESH TISSUE CONCENTRATIONS DETERMINED IN FLESH OF BLUE CRABS, SHRIMP, OYSTERS, MUD CRABS, MUSSELS TAKEN AT EACH STATION
COPPER IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40 OBS			CONCENTRATIONS IN FLESH OF VARIOUS SPECIES OF FINFISH TAKEN AT EACH STATION
COPPER IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	20 OBS			CONCENTRATIONS IN FLESH OF SHRIMP, OYSTERS, MUSSELS
CHROMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40 OBS			CONCENTRATIONS IN FLESH OF VARIOUS SPECIES OF FINFISH TAKEN AT EACH STATION
CHROMIUM IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	20 OBS			CONCENTRATIONS IN FLESH OF SHRIMP, OYSTERS, MUSSELS
LEAD IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40 OBS			CONCENTRATIONS IN FLESH OF VARIOUS SPECIES OF FINFISH TAKEN AT EACH STATION
LEAD IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	20 OBS			CONCENTRATIONS IN FLESH OF SHRIMP, OYSTERS, MUSSELS
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40 OBS			CONCENTRATIONS IN FLESH OF VARIOUS SPECIES OF FINFISH TAKEN AT EACH STATION

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
ZINC IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40	OBS			CONCENTRATIONS IN FLESH OF SHRIMP, OYSTERS, MUSSELS
ALUMINUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40	OBS			CONCENTRATIONS IN FLESH OF VARIOUS SPECIES OF FINFISH TAKEN AT EACH STATION
ALUMINUM IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40	OBS			CONCENTRATIONS IN FLESH OF SHRIMP, OYSTERS, MUSSELS

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., DELAWARE BAY

ABSTRACT:
TRACE METAL CONDITIONS OF THE BOTTOM SEDIMENTS IN THE DELAWARE BAY NEAR EXISTING OYSTER BANKS WERE INVESTIGATED IN ORDER TO LOCATE AREAS SUITABLE FOR THE LOCATION OF CULTURED OYSTER BANKS.
(UNPUBLISHED M.S. THESIS OF FREDERICK BOPP III, JUNE 1973)

DATA AVAILABILITY:
INTERLIBRARY LOAN

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
REPORTS
ONE 135 PAGE THESIS

FUNDING:
UNIVERSITY OF DELAWARE

INVENTORY:

PUBLICATIONS:

CONTACT:
LIBRARIAN 302 738 2455
MORRIS LIBRARY
UNIVERSITY OF DELAWARE
NEWARK DELAWARE USA 19711

GRID LOCATOR (LAT):
730795 730794 730785 730784

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP	119 STATIONS			
TIME	EARTH	STATION TIME	YMD	119 OBS			
SIZE ANALYSIS	SEDIMENT	SIEVE	PERCENT	119 OBS			SAND, SILT, OR CLAY
IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	119 OBS			GREATER THAN 63U FRACTION OF SEDIMENT ONLY
MAGNESIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	119 OBS			GREATER THAN 63U FRACTION OF SEDIMENT ONLY

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PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
COPPER	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	119 OBS			GREATER THAN 63U FRACTION OF SEDIMENT ONLY
CHROMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	119 OBS			GREATER THAN 63U FRACTION OF SEDIMENT ONLY
LEAD	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	119 OBS			GREATER THAN 63U FRACTION OF SEDIMENT ONLY
ZINC	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	119 OBS			GREATER THAN 63U FRACTION OF SEDIMENT ONLY

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, U.S., CHESAPEAKE BAY, PATAPSCO RIVER, COASTAL

ABSTRACT:
ANALYSIS OF OYSTER MEATS FROM PATAPSCO RIVER, MARYLAND FOR GOLD AND MERCURY BY NEUTRON ACTIVATION ANALYSIS. SINGLE STATION SOURCE OF OYSTERS. PROGRAM INTENT WAS TO PROVIDE BASELINE DATA AND EVALUATE ANALYTIC TECHNIQUE. DATA FILE INCLUDES ENERGY SPECTRA FOR EACH SAMPLE.
(MS THESIS, R. T. MOHR, 1971)

DATA AVAILABILITY:
INTERLIBRARY LOAN

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
REPORTS
97 PAGES

FUNDING:
UNIVERSITY OF MARYLAND

INVENTORY:

PUBLICATIONS:

CONTACT:
LIBRARIAN 301 454 3011
MCKELDIN LIBRARY
UNIVERSITY OF MARYLAND
COLLEGE PARK MARYLAND USA 20742

GRID LOCATOR (LAT):
730796

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP	1 STATIONS			
TIME	EARTH	STATION TIME	YMD	1 STATIONS			
GOLD IN BIO MATERIAL	WATER	GAMMA RAY SPECTROMETRY	PPM DRY WEIGHT	14 OBS			OYSTER MEAT
MERCURY IN BIO MATERIAL	WATER	GAMMA RAY SPECTROMETRY	PPB DRY WEIGHT	14 OBS			OYSTER MEAT

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, U.S., CHESAPEAKE BAY, COASTAL

ABSTRACT:
SAMPLES OF OYSTERS TAKEN FROM 4 SITES IN MARYLAND WATERS ANALYZED FOR CADMIUM. INTENT OF STUDY WAS TO PROVIDE BASELINE DATA AND EVALUATE TECHNIQUE FOR ANALYSIS.
(MS THESIS BY P.H. GRAHAM, 1971, DEPARTMENT OF CIVIL ENGINEERING)

DATA AVAILABILITY:
INTERLIBRARY LOAN

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
REPORTS
45 PAGES

FUNDING:
UNIVERSITY OF MARYLAND

INVENTORY:

PUBLICATIONS:

CONTACT:
LIBRARIAN 301 454 3011
MCKELDIN LIBRARY
UNIVERSITY OF MARYLAND
COLLEGE PARK MARYLAND USA 20742

GRID LOCATOR (LAT):
730786

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP	4	STATIONS			
TIME	EARTH	STATION TIME	YMD	4	STATIONS			
CADMIUM IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM WET WEIGHT	16	OBS			OYSTERS ANALYZED
WEIGHT OF BENTHIC ANIMALS	BOTTOM	WET WEIGHT	GM	16	OBS			OYSTERS, MEAT ONLY

DATA COLLECTED: AUGUST 1973 TO AUGUST 1973 RECEIVED: SEPTEMBER 04, 197

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., CHESAPEAKE BAY

ABSTRACT:
OFFSHORES AREAS IN THE CHESAPEAKE BAY NEAR THE SITE OF THE PROPOSED CALVERT CLIFFS NUCLEAR GENERATING STATION WERE SURVEYED BY HYDRAULIC DREDGE TO LOCATE CLAM BEDS WHICH MIGHT POSSIBLY BE AFFECTED BY OPERATIONS OF THE POWER PLANT. RESULTS ARE AVAILABLE IN A 10 PAGE REPORT. DATA FROM THIS STUDY IS COMPARED TO A 1971 STUDY OF THE SAME AREA, WHICH IS ALSO AVAILABLE BUT CONTAINS NO DATA, AND AN INCREASE IN THE NUMBER OF SOFT SHELL CLAMS IS EVIDENT.
(CONTRACT WORK DONE FOR THE BALTIMORE GAS AND ELECTRIC COMPANY)

DATA AVAILABILITY:
REPORTS AVAILABLE ONLY FROM CONTRACT AGENCY

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
REPORTS
ONE 10 PAGE REPORT

FUNDING:
THE BALTIMORE GAS AND ELECTRIC COMPANY

INVENTORY:

PUBLICATIONS:

CONTACT:
DR. CLYDE E. GOULDEN 215 567 3700
THE ACADEMY OF NATURAL SCIENCES
NINETEENTH AND THE PARKWAY
PHILADELPHIA PENNSYLVANIA USA 19103

GRID LOCATOR (LAT):
730786

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP	18	STATIONS			
TIME	EARTH	STATION TIME	YMD	18	OBS	ONCE	BOTTOM	
COUNT OF BENTHIC ANIMALS	BOTTOM	VISUAL	NUMBER OF INDIVIDUALS	18	OBS	ONCE		SOFT SHELL CLAMS ONLY; OBTAINED WITH 32 FT COMMERCIAL DREDGE WITH 3 FT HEAD; 5 MIN DREDGE, 4 TIMES AT EACH

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
MORPHOMETRIC MEASURE OF BENTHIC ANIMALS	BOTTOM	DIRECT	SIZE RANGE	18	OBS	ONCE		STATION GREATER THAN 57 MM, LESS THAN 57 MM; SOFT SHELL CLAMS ONLY
DISSOLVED OXYGEN GAS	WATER	TITRATION	PPM	18	OBS	ONCE	BOTTOM	
SALINITY	WATER	TITRATION	PPT	18	OBS	ONCE	BOTTOM	
COUNT OF MICROBIOTA	WATER	VISUAL	VARIOUS	18	OBS	ONCE	BOTTOM	FECAL COLIFORM, NUMBER PER 100 G; TOTAL COLIFORM, NUMBER PER G

DATA COLLECTED: JUNE 1968 TO PRESENT

RECEIVED: SEPTEMBER 04, 1974

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., CHESAPEAKE BAY

ABSTRACT:
TO DETERMINE THE ECOSYSTEM STRUCTURE AND ITS ECOLOGICAL CHARACTERISTICS, PARTICULARLY DIVERSITY, IN CERTAIN SELECTED, SHALLOW-WATER AREAS IN THE VICINITY OF THE CALVERT CLIFFS NUCLEAR GENERATING STATION A BAY SURVEY IS BEING CARRIED OUT INCLUDING BIOLOGICAL, CHEMICAL, PHYSICAL, AND BACTERIOLOGICAL STUDIES OF THE WATER. THE STUDY IS TO DETERMINE A BASE LINE PICTURE OF CHESAPEAKE BAY CONDITIONS BEFORE PLANT OPERATIONS BEGIN.
(CONTRACT WORK DONE FOR THE BALTIMORE GAS AND ELECTRIC COMPANY)

DATA AVAILABILITY:
REPORTS AVAILABLE ONLY FROM CONTRACT AGENCY

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
REPORTS
FIVE 50 PAGE YEARLY REPORTS

FUNDING:
BALTIMORE GAS AND ELECTRIC COMPANY

INVENTORY:

PUBLICATIONS:

CONTACT:
DR. CLYDE E. GOULDEN 215 567 3700
THE ACADEMY OF NATURAL SCIENCES
NINETEENTH AND THE PARKWAY
PHILADELPHIA PENNSYLVANIA USA 19103

GRID LOCATOR (LAT):
730786

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP	4	STATIONS			
TIME	EARTH	SAMPLING TIME	YMDHM	40	OBS	TWICE PER YEAR		
SPECIES DETERMINATION OF BENTHIC PLANTS	BOTTOM	KEY	NUMBER OF SPECIES PER CLASS	40	OBS	TWICE PER YEAR	SHORE ZONE	ALGAE OBTAINED BY VARIED TECHNIQUES
SPECIES DETERMINATION	WATER	KEY	SPECIES, CLASS, TYPE	40	OBS	TWICE PER YEAR	SHORE ZONE	PROTOZOA OBTAINED BY

0572

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
OF MICROBIOTA								COLLECTING VARIOUS SUBSTRATES THAT WOULD PROVIDE MICROHABITATS; PLANKTON TOWS ALSO USED
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NUMBER OF SPECIES PER STATION	40	OBS	TWICE PER YEAR	SHORE ZONE	VARIOUS COLLECTING MECHANISMS USED TO SAMPLE ALL BOTTOM TYPES
SPECIES DETERMINATION OF DEMERSAL FISH	WATER	KEY	NUMBER OF SPECIES PER STATION	40	OBS	TWICE PER YEAR	SHORE ZONE	50 FT BAG SEINE WITH ONE-HALF INCH MESH USED; DENDROGRAMS OF SPECIES ASSOCIATIONS PRESENTED
TOTAL ALKALINITY	WATER	TITRATION	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
LIGHT ATTENUATION	WATER	COLORIMETRY	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
CHLORIDE	WATER	TITRATION	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
								A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
DISSOLVED OXYGEN GAS	WATER	TITRATION	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
BIOCHEMICAL OXYGEN DEMAND	WATER	TITRATION	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
SULFATE	WATER	TITRATION	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
SILICATE	WATER	COLORIMETRY	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
BICARBONATE ALKALINITY	WATER	CALCULATED	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER
CARBONATE ALKALINITY	WATER	CALCULATED	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER
PH	WATER	COLORIMETRY	PH UNITS	400	OBS	DAILY FOR ONE WEEK	SURFACE	A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER
ELECTRICAL CONDUCTIVITY	WATER	IN SITU CONDUCTIVITY CELL	MICROMHOS	400	OBS	DAILY FOR ONE WEEK	SURFACE	A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
							A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
SODIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	400 OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
POTASSIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	400 OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
IRON	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	400 OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
MANGANESE	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	400 OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
							A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
TEMPERATURE	WATER	NON-REVERSING THERMOMETER	PPM	400 OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
COUNT OF MICROBIOTA	WATER	VISUAL	COLONIES PER VOLUME SAMPLE	400 OBS	DAILY FOR ONE WEEK	SURFACE	TOTAL BACTERIA, COLIFORM BACTERIA
PHOSPHATE	WATER	COLORIMETRY	PPM	400 OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
NITRATE	WATER	COLORIMETRY	PPM	400 OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
NITRITE	WATER	COLORIMETRY	PPM	400 OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
AMMONIA	WATER	COLORIMETRY	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR; MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED .KJE LDAHL NITROGEN S-WATER M-COLORIMETRY U-PPM T-OBS Q-400 F-DAILY FOR ONE WEEK H-SURFACE R-SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A YEAR: MEAN STD ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
TOTAL SOLIDS	WATER	DRY WEIGHT	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
							ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED

PROJECTS:

GENERA GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., NORTH CAROLINA, CALICO CREEK

ABSTRACT:
SURVEY OF THE EFFECTS OF SEWAGE EFFLUENTS AND HEAVY METALS ON AGRICULTURAL AND MARINE ECOSYSTEMS OF NORTH CAROLINA
(INTENSIVE SURVEY OF 15 STATIONS ON CALICO CREEK AND STATIONS IN 20 OTHER COASTAL CITIES.)

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
REPORTS; DATA SHEETS
200 PAGES

FUNDING:
UNIVERSITY OF NORTH CAROLINA; NORTH CAROLINA OFFICE OF WATER RESOURCES RESEARCH PROGRAM

INVENTORY:

PUBLICATIONS:

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BEAUFORT NORTH CAROLINA USA 28516

GRID LOCATOR (LAT):
730748 730747 730746 730756 730755 730765

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	DM	35 STATIONS			LATITUDE & LONGITUDE
TIME	EARTH	STATION TIME	YMD	35 STATIONS	BIANNUAL		
MERCURY	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
CADMIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
SELENIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
LEAD	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
COPPER	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
ZINC	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
IRON	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
CHROMIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
NICKEL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
MERCURY	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
CADMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
SELENIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
LEAD	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
COPPER	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
ZINC	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
CHROMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
NICKEL	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OUTFALL PIPE
MERCURY IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
CADMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
~~SELENIUM IN BIO~~ MATERIAL	~~WATER~~	ATOMIC ABSORPTION SPECTROMETRY	PPB	~~35~~ ~~STATIONS~~	~~BIANNUAL~~		OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
LEAD IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35 STATIONS	BIANNUAL		OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
COPPER IN BIO	WATER	ATOMIC ABSORPTION	PPB	35 STATIONS	BIANNUAL		OYSTERS,

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
MATERIAL		SPECTROMETRY					LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35	STATIONS	BIANNUAL	OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
IRON IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35	STATIONS	BIANNUAL	OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
CHROMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35	STATIONS	BIANNUAL	OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
NICKEL IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35	STATIONS	BIANNUAL	OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
PRECIPITATION AMOUNT	AIR	RAIN GAGE	INCHES	35	STATIONS	BIANNUAL	
WATER TRANSPORT	WATER	FLOW METER		35	STATIONS	BIANNUAL	
PARTICULATE MATTER	WATER	GRAVIMETRY		35	STATIONS	BIANNUAL	

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH AMERICA, U.S., COASTAL, DELAWARE, DELAWARE BAY

ABSTRACT:
THE PRIMARY OBJECTIVE WAS TO TYPIFY THE TRACE METAL GEOCHEMICAL ASPECTS OF THE SEDIMENTARY ENVIRONMENTS WHICH SUPPORT OYSTERS IN DELAWARE BAY. THESE RESULTS PROVIDE BASELINE INFORMATION TO BE USED IN THE OYSTER EARLY-WARNING POLLUTION MONITORING SYSTEM BEING DEVELOPED BY THE STATE OF DELAWARE AND THE UNIVERSITY OF DELAWARE. IN ADDITION, A FURTHER OBJECTIVE IS TO CHARACTERIZE THE TRACE METALS DETERMINED WITH RESPECT TO THEIR GENERALIZED SOURCE, AND THE PRIMARY FACTORS CONTROLLING THEIR DISTRIBUTION. SAMPLES WERE COLLECTED FROM 118 DISCRETE LOCATIONS IN DELAWARE BAY. BASELINES ARE ESTABLISHED FOR IRON, MAGNESIUM, ZINC, CHROMIUM, COPPER, LEAD, CADMIUM, MERCURY, NICKEL, AND STRONTIUM.

DATA AVAILABILITY:

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
REPORTS
THE DATA OCCURS IN A TECHNICAL REPORT 47 PAGES IN LENGTH.

FUNDING:
NOAA, OFFICE OF SEA GRANT

INVENTORY:

PUBLICATIONS:
BOPP, F., III, 1972, TRACE METAL ENVIRONMENTS NEAR SHELL BANKS IN DELAWARE BAY, COLLEGE OF MARINE STUDIES, UNIVERSITY OF DELAWARE. DEL-SG-9-72, 47 PGS.

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NEWARK DELAWARE USA 19711

GRID LOCATOR (LAT,):
730795

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	DMT	118 STATIONS			
~~TIME~~	~~EARTH~~	~~STATION TIME~~		~~118~~ ~~STATIONS~~			
IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118 STATIONS			HYDROCHLORIC ACID EXTRACTION FROM SILT AND CLAY FRACTION
MAGNESIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118 STATIONS			HYDROCHLORIC ACID EXTRACTION FROM SILT AND

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
ZINC	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118 STATIONS			CLAY FRACTION HYDROCHLORIC ACID EXTRACTION FROM SILT AND
CHROMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118 STATIONS			CLAY FRACTION HYDROCHLORIC ACID EXTRACTION FROM SILT AND
COPPER	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118 STATIONS			CLAY FRACTION HYDROCHLORIC ACID EXTRACTION FROM SILT AND
LEAD	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118 STATIONS			CLAY FRACTION HYDROCHLORIC ACID EXTRACTION FROM SILT AND
CADMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118 STATIONS			CLAY FRACTION HYDROCHLORIC ACID EXTRACTION FROM SILT AND
MERCURY	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPB	118 STATIONS			CLAY FRACTION HYDROCHLORIC ACID EXTRACTION FROM SILT AND
NICKEL	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118 STATIONS			CLAY FRACTION HYDROCHLORIC ACID EXTRACTION FROM SILT AND
STRONTIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118 STATIONS			CLAY FRACTION HYDROCHLORIC ACID EXTRACTION FROM SILT AND CLAY FRACTION

DATA COLLECTED: JUNE 1971 TO OCTOBER 1973 RECEIVED: AUGUST 01, 1975

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, U.S., DELAWARE BAY, MISPILLION RIVER, COASTAL

ABSTRACT:
OYSTERS, CRASSOSTREA VIRGINICA WERE EXPOSED FOR 3 DAYS TO 203HGCL2 OR CH3 203HGCL ADDED DIRECTLY TO ARTIFICIAL SEA WATER OR ADDED PRECONCENTRATED ON THE MARINE DIATOM, PHAEODACTYLUM TRICORNUTUM. THE CONCENTRATION OF 203HG IN FIVE TISSUES WAS MEASURED FOR 45 DAYS AFTER MERCURY WAS REMOVED FROM THE AMBIENT WATER. TO STUDY THE KINETICS OF MERCURY UPTAKE IN OYSTERS, ADULT CRASSOTREA VIRGINICA (GMELIN) WERE HELD IN SEA WATER CONTAINING EITHER 10PPB OR 100PPB MERCURY FOR 45 DAYS. MERCURY CONCENTRATIONS IN TISSUES WERE DETERMINED BY ANALYSIS OF INDIVIDUALLY HOMOGENIZED OYSTER MEATS USING WET DIGESTION AND FLAMELESS ABSORPTION SPECTROPHOTOMETRY.

DATA AVAILABILITY:
LIBRARY LOAN

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
REPORTS
ONE 147 PAGE THESIS

FUNDING:

INVENTORY:

PUBLICATIONS:
DATA INCLUDED IN UNPUBL. PHD. DISSERTATION, 1974, BY PATRICIA ANN CUNNINGHAM

CONTACT:
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UNIVERSITY OF DELAWARE, MARINE STATION LIBRARY
LEWES DELAWARE USA 19958

GRID LOCATOR (LAT):
7307855270

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MIN	1	STATIONS			
TIME	EARTH	STATION TIME	YR	70	OBS			
MERCURY IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	350	OBS			MERCURY MEASURED IN TISSUES OF OYSTERS AND IN HOMOGINIZED OYSTERS AND FROM THIS DATA

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
							THE UPTAKE, DISTRIBUTION IN TISSUES AND DEPURATION OF MERCURY IN CRASSOSTREA VIRGINICA WAS CALCULATED

DATA COLLECTED: OCTOBER 1966 TO AUGUST 1969 RECEIVED: SEPTEMBER 22, 1975

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., DELAWARE, INDIAN RIVER AND REHOBOTH BAYS AND LEIPSIC, SIMONS, MISPILLION AND BROADKILL RIVERS AND BOWER'S BEACH

ABSTRACT:
DATA ON THE LEVELS OF DDD, DDE, DDT AND DIELDRIN IN THE GENERAL TISSUES OF THREE SHELLFISH, CRASSOSTREA VIRGINICA, MODIOLUS DEMISSUS AND MERCENARIA MERCENARIA, COLLECTED FROM OCTOBER 1966 THROUGH AUGUST 1969 FROM VARIOUS COASTAL WATERS ADJACENT TO THE STATE OF DELAWARE ARE PRESENTED IN REPORT FORM.
(ANALYSES CONDUCTED AT BUREAU OF COMMERCIAL FISHERIES BIOLOGICAL LABORATORY-GULF BREEZE, FLORIDA)

DATA AVAILABILITY:

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
REPORTS
52 PAGES

FUNDING:
UNITED STATES DEPARTMENT OF INTERIOR FISH AND WILDLIFE SURFACE, BUREAU OF COMMERCIAL FISHERIES

INVENTORY:

PUBLICATIONS:

CONTACT:
LAWRENCE CURTIS 302 738 2794
MARINE LABORATORIES, UNIVERSITY OF DELAWARE
NEWARK DELAWARE USA 19711

GRID LOCATOR (LAT):
7307853097 7307853150 7307854015 7307854075 7307854184 7307855168 7307950233 7307951234 7307951244

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	9	STATIONS			3 STATIONS FOR CRASSOSTREA VIRGINIA, 3 STATIONS FOR MERCENARIA, 3 STATIONS FOR MODIOLUS DEMISSUS
TIME	EARTH	STATION TIME	YMD	282	OBS	1 OBS PER STATION PER MONTH		

0172

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
DDD IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER MILLION PER SHELLFISH SPECIES TISSUE SAMPLE PER OBS PER STATION	282 OBS	1 OBS PER STATION PER MONTH		
DDE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER MILLION PER SHELLFISH SPECIES TISSUE SAMPLE PER OBS PER STATION	282 OBS	1 OBS PER STATION PER MONTH		
DDT IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER MILLION PER SHELLFISH SPECIES TISSUE SAMPLE PER OBS PER STATION	282 OBS	1 OBS PER STATION PER MONTH		
DIELDRIN IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER MILLION PER SHELLFISH SPECIES TISSUE SAMPLE PER OBS PER STATION	282 OBS	1 OBS PER STATION PER MONTH		

0273

DATA COLLECTED: JUNE 1972 TO PRESENT
RECEIVED: JUNE 21, 1976

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., CHESAPEAKE BAY

ABSTRACT:
STARTED IN JUNE OF 1972, THIS IS A CONTINUING SURVEY OF THE NEKTON AND BENTHIC ORGANISMS IN THE AREA AROUND THE CHESAPEAKE BAY BRIDGE TUNNEL. PARAMETERS INCLUDE TEMPERATURE, SALINITY SPECIES DETERMINATIONS AND COUNTS, WEATHER AND SECCHI DISC DEPTH.

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
REPORTS
1000 DATA SHEETS

FUNDING:
ANNE ARUNDEL COMMUNITY COLLEGE

INVENTORY:

PUBLICATIONS:

CONTACT:
HUGO G. GEMIGNAMI 301 647 7100
ANNE ARUNDEL COMMUNITY COLLEGE
101 COLLEGE PARKWAY
ARNOLD MARYLAND USA 21012

GRID LOCATOR (LAT):
730776

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	LONGITUDE AND LATITUDE	3 STATIONS			
TIME	EARTH	SAMPLING TIME	YMDHM	3 STATIONS	MONTHLY		
TEMPERATURE	AIR	MERCURY THERMOMETER	DEG C	3 STATIONS	MONTHLY		
TEMPERATURE	WATER	THERMISTOR	DEG C	3 STATIONS	MONTHLY		
SALINITY	WATER	CONDUCTIVITY	PPT	3 STATIONS	MONTHLY		
WEATHER	AIR	VISUAL		3 STATIONS	MONTHLY		
SECCHI DISC DEPTH	WATER	AVERAGE DEPTH		3 STATIONS	MONTHLY		
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY		3 STATIONS	MONTHLY		

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
COUNT OF BENTHIC ANIMALS	BOTTOM	VISUAL		3 STATIONS	MONTHLY		
SPECIES DETERMINATION OF MICROBIOTA	WATER	KEY		3 STATIONS	MONTHLY		
COUNT OF MICROBIOTA	WATER	VISUAL		3 STATIONS	MONTHLY		

DATA COLLECTED: JANUARY 1969 TO AUGUST 1969 RECEIVED: AUGUST 26, 1976

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH AMERICA, U.S., VIRGINIA, ELIZABETH RIVER

ABSTRACT:
THE PURPOSE OF THIS INVESTIGATION WAS TO STUDY BENTHIC MACROVERTEBRATE COMMUNITIES AS INDICATORS OF POLLUTION IN THE ELIZABETH RIVER OF HAMPTON, VIRGINIA. THE STUDY WAS CONDUCTED FROM JANUARY TO AUGUST 1969 AND WAS FUNDED BY THE HAMPTON ROADS SANITATION DISTRICT.

DATA AVAILABILITY:
ON SITE INSPECTION

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
REPORTS; SAMPLES
106 PAGES, AND 350 SAMPLES

FUNDING:
HAMPTON ROADS SANITATION DISTRICT

INVENTORY:

PUBLICATIONS:
RICHARDSON, M.S., A TECHNICAL ECOLOGICAL REPORT TO THE HAMPTON ROADS SANITATION DISTRICT COMMISSION, MS THESIS COLLEGE OF WILLIAM AND MARY, WILLIAMSBURG, 1969

CONTACT:
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OREGON STATE UNIVERSITY
SCHOOL OF OCEANOGRAPHY
CORVALIS OREGON USA 97331

GRID LOCATOR (LAT):
730776

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
TIME	EARTH	SAMPLING TIME		8	MOS			
POSITION	EARTH	FIXED POINT		8	MOS			
CATCH/EFFORT OF BENTHIC ANIMALS	BOTTOM	GRAB		8	MOS			SEVEN-HUNDRDTHS METER SQUARED VAN VEEN GRAB
DIVERSITY INDEX OF BENTHIC ANIMALS	BOTTOM	BRILLOUIN		8	MOS			
DIVERSITY INDEX	BOTTOM	MARGALEF		8	MOS			

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
OF BENTHIC ANIMALS							
DIVERSITY INDEX OF BENTHIC ANIMALS	BOTTOM	SHANNON-WEINER		8 MOS			
SAMPLE OF BENTHIC ANIMALS	BOTTOM	ALCOHOL		8 MOS			
SAMPLE OF BENTHIC ANIMALS	BOTTOM	FORMALIN		8 MOS			
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY		8 MOS			
TAXONOMIC LIST OF BENTHIC ANIMALS	BOTTOM	KEY		8 MOS			

220

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATANTIC, COASTAL, U.S., DELAWARE BAY

ABSTRACT:
DATA OBTAINED DURING A SURVEY CONDUCTED FROM 1971 TO THE PRESENT ON THE LIVE OYSTER BEDS OF THE DELAWARE BAY AND TRIBUTARIES ARE PRESENTED IN REPORT FORM. MEASURED PARAMETERS INCLUDE DISTRIBUTIONS OF SPAT AND OYSTERS, THE STATUS OF THE MSX INFECTION AND VOLUMES OF MARKET OYSTERS HARVESTED ANNUALLY. THE PURPOSE OF THE INVESTIGATION HAS BEEN TO DETERMINE THE LOCATIONS AND CONDITIONS OF NATURAL SEED BEDS IN ORDER TO AID IN THE PLANNING OF INCREASED OYSTER PRODUCTION.
(MSX-MINCHINIA NELSONI (OYSTER PARASITE))

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP; FIXED STATION

ARCHIVE MEDIA:
REPORTS
1/5 FILE DRAWER

FUNDING:
NOAA-PROJECT NO 3-142-R, CONTRACT NUMBER 14-17-0003-589

INVENTORY:

PUBLICATIONS:

CONTACT:
STAFF-DIVISION OF FISH AND WILDLIFE 302 678 4431
DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL
D STREET
DOVER DELAWARE USA 19901

GRID LOCATOR (LAT):
730795

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	11	STATIONS			11 OYSTER BEDS
TIME	EARTH	STATION TIME	YM	11	STATIONS			
BIOLOGICAL CONDITION OF BENTHIC ANIMALS	BOTTOM	VISUAL		11	STATIONS			
COUNT OF BENTHIC ANIMALS	BOTTOM	VISUAL		4	OBS			
COMMERCIAL FISHERIES	BOTTOM	VISUAL	NUMBER OF BUSHELS OF	4	OBS	ANNUALLY		

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
ACTIVITIES			MARKET OYSTERS LANDED PER YEAR				

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH AMERICA, U.S., MARYLAND, ANNE ARUNDEL COUNTY, BOOKIN NECK AREA

ABSTRACT:
BIOLOGICAL, PHYSICAL, AND CHEMICAL PARAMETERS WERE COLLECTED FROM SEPTEMBER THROUGH DECEMBER, 1973 TO PRODUCE A DATA BASELINE FOR THE QUEEN ANNE'S HARBOR, BROOKIN NECK AREA, MARYLAND. PARAMETERS INCLUDE SPECIES COUNT OF PLANTS, ANIMALS, AND FISH, NUTRIENTS, TEMPERATURE, SALINITY, METALS, TURBIDITY, AND DISSOLVED SOLIDS AND GASES.
(PROJECT CARRIED OUT BY JACK MCCORMICK AND ADDOCIATES FOR STATE OF MARYLAND)

DATA AVAILABILITY:
AVAILABLE UPON REQUEST FROM JACK MCCORMICK AND ASSOCIATES OFFICE IN BERWYN, PENNSYLVANIA

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
REPORTS
85 PAGES

FUNDING:
STATE OF MARYLAND, DEPARTMENT OF NATURAL RESURCES

INVENTORY:

PUBLICATIONS:

CONTACT:
JACK MCCORMICK 215 647 9000
JACK MCCORMICK AND ASSOCIATES
511 OLD LANCASTER ROAD
BERWYN PENNSYLVANIA USA 19312

GRID LOCATOR (LAT):
7307963100

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATIONS	13 STATIONS	1 SURVEY		
TIME	EARTH	STATION TIME	YMD	13 STATIONS	1 SURVEY		
TAXONOMIC LIST OF LAND PLANTS	LAND	KEY	QUALITATIVE	1 STATIONS	1 SURVEY		
COUNT OF BIRDS	AIR	VISUAL	QUALITATIVE	6 STATIONS	1 SURVEY		
SPECIES DETERMINATION OF BIRDS	AIR	KEY	QUALITATIVE	6 STATIONS	1 SURVEY		
COUNT OF AMPHIBIANS	WATER	VISUAL	QUALITATIVE	6 STATIONS	1 SURVEY		
SPECIES	WATER	KEY	QUALITATIVE	6 STATIONS	1 SURVEY		

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PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
DETERMINATION OF AMPHIBIANS							
SPECIES DETERMINATION OF MAMMALS	LAND	KEY	QUALITATIVE	6 STATIONS	1 SURVEY		
COUNT OF MAMMALS	LAND	VISUAL	QUALITATIVE	6 STATIONS	1 SURVEY		
TEMPERATURE	WATER	RESISTANCE THERMOMETER	DEG C	13 STATIONS	1 SURVEY		
SALINITY	WATER	CONDUCTIVITY	PARTS/THOUSAND	13 STATIONS	1 SURVEY		
ELECTRICAL CONDUCTIVITY	WATER	LAB CONDUCTIVITY CELL	MHOS/CENTIMETER	13 STATIONS	1 SURVEY		
PH	WATER	PH METER	PH UNITS	13 STATIONS	1 SURVEY		
DISSOLVED OXYGEN GAS	WATER	TITRATION	MILLIGRAM/LITER	13 STATIONS	1 SURVEY		
ORGANIC CARBON	WATER	AUTOANALYZER	MILLIGRAM/LITER	13 STATIONS	1 SURVEY		
KJELDAHL NITROGEN	WATER	SPECTROPHOTOMETRY	MILLIGRAM/LITER	13 STATIONS	1 SURVEY		
PHOSPHATE	WATER	SPECTROPHOTOMETRY	MILLIGRAM/LITER	13 STATIONS	1 SURVEY		
SULFATE	WATER	SPECTROPHOTOMETRY	MILLIGRAM/LITER	13 STATIONS	1 SURVEY		
SULFIDE	WATER	TITRATION	MILLIGRAM/LITER	13 STATIONS	1 SURVEY		
LIGHT ATTENUATION	WATER	COLORIMETRY	FTU	13 STATIONS	1 SURVEY		
COLOR	WATER	COLORIMETRY	PLATINUM-COBALT UNITS	39 OBS	3 OBS/STATION		
ZINC	WATER	ATOMIC ABSORPTION SPECTROMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
MERCURY	WATER	ATOMIC ABSORPTION SPECTROMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
COPPER	WATER	ATOMIC ABSORPTION SPECTROMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
IRON	WATER	ATOMIC ABSORPTION SPECTROMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
LEAD	WATER	ATOMIC ABSORPTION SPECTROMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
KJELDAHL NITROGEN	SEDIMENT	SPECTROPHOTOMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
SULFIDE	SEDIMENT	TITRATION	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
PHOSPHATE	SEDIMENT	SPECTROPHOTOMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
CHEMICAL OXYGEN DEMAND	SEDIMENT	DIGESTION	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
OILS	SEDIMENT	EXTRACTION/ WEIGHT	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
ZINC	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
MERCURY	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
COPPER	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		
LEAD	SEDIMENT	ATOMIC ABSORPTION	MILLIGRAM/LITER	39 OBS	3 OBS/STATION		

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
COUNT OF PELAGIC FISH	WATER	VISUAL	NUMBER/1000 SQUARE FOOT SEINE AREA	20	OBS	5 OBS/SURVEY		
SPECIES DETERMINATION OF PELAGIC FISH	WATER	KEY	NUMBER/1000 SQUARE FOOT SEINE AREA	20	OBS	5 OBS/SURVEY		
COUNT OF BENTHIC ANIMALS	BOTTOM	VISUAL	NUMBER/SQUARE FOOT	13	STATIONS	1 SURVEY		
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NUMBER/SQUARE FOOT	13	STATIONS	1 SURVEY		
COUNT OF ZOOPLANKTON	WATER	VISUAL	NUMBER/CUBIC METER	3	OBS	1 SURVEY		
SPECIES DETERMINATION OF ZOOPLANKTON	WATER	KEY	NUMBER/CUBIC METER	3	OBS	1 SURVEY		
COUNT OF PHYTOPLANKTON	WATER	VISUAL	NUMBER/CUBIC METER	3	OBS	1 SURVEY		
SPECIES DETERMINATION OF PHYTOPLANKTON	WATER	KEY	NUMBER/CUBIC METER	3	OBS	1 SURVEY		
COUNT OF MICROBIOTA	WATER	VISUAL	NUMBER/100 MILLILITER	39	OBS	3 OBS/STATION		TOTAL BACTERIA; FECAL BACTERIA; TOTAL COLIFORM; TOTAL STREPTOCOCCI
TOTAL DISSOLVED SOLIDS	DISSOLVED	DESICCATION WEIGHT	MILLIGRAM/LITER	39	OBS	3 OBS/STATION		
PARTICULATE MATTER	WATER	MEMBRANE FILTRATION	MILLIGRAM/LITER	39	OBS	3 OBS/STATION		

PROJECTS:
ENLARGEMENT OF THE CHESAPEAKE AND DELAWARE CANAL

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC, COASTAL, U.S., DELMARVA PENINSULA, CHESAPEAKE AND DELAWARE CANAL

ABSTRACT:
DATA COLLECTED ON THE PLANKTONIC AND BENTHIC ORGANISMS FOUND IN THE CHESAPEAKE AND DELAWARE CANAL AND ADJACENT WATERS DURING THE 1974 ECOLOGICAL STUDY OF THE AQUATIC ENVIRONMENT IN THE VICINITY OF THE PROPOSED SUMMIT POWER STATION ARE PRESENTED IN REPORT FORM. SPECIES DETERMINATIONS AND DISTRIBUTIONS OF PHYTOPLANKTON, ZOOPLANKTON AND BENTHIC ORGANISMS ARE GIVEN IN ORDER TO OBTAIN INFORMATION ABOUT DAILY AND SEASONAL CHANGES IN POPULATION STRUCTURE. VITALITY STUDIES ON THE ZOOPLANKTON ARE INCLUDED. THE RESULTS OF A COMPREHENSIVE ANALYSIS OF THE PHYSICAL/CHEMICAL ENVIRONMENT IN THE CANAL WATERS DURING THE BIOLOGICAL SAMPLING PROGRAM ARE ALSO AVAILABLE. MEASURED PARAMETERS INCLUDE COLIFORM COUNTS, NUTRIENTS, PIGMENTS, HEAVY METALS, OIL AND GREASE, TEMPERATURE, SALINITY, DISSOLVED OXYGEN GAS, PH, TURBIDITY AND TRANSPARENCY, HARDNESS, TOTAL ALKALINITY, CARBONATE ALKALINITY, SULFATE, TOTAL DISSOLVED SOLIDS, SUSPENDED SOLIDS, TOTAL PHOSPHORUS, DISSOLVED PHOSPHORUS, NITRATE-NITROGEN, NITRITE-NITROGEN, AMMONIA, ORGANIC NITROGEN, MAGNESIUM, CALCIUM AND TOTAL SILICA.

DATA AVAILABILITY:
UPON PERMISSION FROM DELMARVA POWER AND LIGHT COMPANY

PLATFORM TYPES:
SHIP; FIXED STATION

ARCHIVE MEDIA:
REPORTS
103 PAGES

FUNDING:
DELMARVA POWER AND LIGHT COMPANY

INVENTORY:

PUBLICATIONS:
INTERPRETIVE REPORT 1974 BY RAYTHEON COMPANY FOR UNITED ENGINEERS AND CONSTRUCTORS INC., CLIENT: DELMARVA POWER AND LIGHT COMPANY; COMPLETE REPORT OF RAW DATA IN ANNUAL DATA REPORT

CONTACT:
HUDSON HOEN 302 479 3205
DELMARVA POWER AND LIGHT COMPANY
800 KING STREET
WILMINGTON DELAWARE USA 19899

GRID LOCATOR (LAT):
73079533

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	7 STATIONS			
TIME	EARTH	STATION TIME	YMD	7 STATIONS			
TEMPERATURE	WATER	THERMISTOR	DEG F	686 OBS	BIWEEKLY TO MONTHLY	SURFACE, BOTTOM	1 SAMPLE PER OBS; 7 STATIONS; TAKEN WITH ALL BIOLOGICAL SAMPLINGS; JANUARY-DECEMBER
SALINITY	WATER	TITRATION	PPT	686 OBS	BIWEEKLY TO MONTHLY	SURFACE, BOTTOM	1 SAMPLE PER OBS; 7 STATIONS; TAKEN WITH ALL BIOLOGICAL SAMPLINGS; JANUARY-DECEMBER
DISSOLVED OXYGEN GAS	WATER	SPECIFIC ION ELECTRODE	MG/L	686 OBS	BIWEEKLY TO MONTHLY	SURFACE, BOTTOM	1 SAMPLE PER OBS; 7 STATIONS; TAKEN WITH ALL BIOLOGICAL SAMPLINGS; JANUARY-DECEMBER
PH	WATER	PH METER	PH UNITS	686 OBS	BIWEEKLY TO MONTHLY	SURFACE, BOTTOM	1 SAMPLE PER OBS; 7 STATIONS; TAKEN WITH ALL BIOLOGICAL SAMPLINGS; JANUARY-DECEMBER
LIGHT ATTENUATION	WATER	COLORIMETRY	PERCENT TRANSMITTANCE, JTU	686 OBS	BIWEEKLY TO MONTHLY	SURFACE, BOTTOM	1 SAMPLE PER OBS; 7 STATIONS; TAKEN WITH ALL BIOLOGICAL SAMPLINGS; JANUARY-DECEMBER
HARDNESS	WATER	EDTA TITRATION	MG/L	80 OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
TOTAL ALKALINITY	WATER	TITRATION	MG/L	80 OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER,	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
						DECEMBER, BIWEEKLY - MARCH-OCTOBER		
CARBONATE ALKALINITY	WATER	TITRATION	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
SULFATE	WATER	NEPHELOMETRY	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
TOTAL DISSOLVED SOLIDS	DISSOLVED	DESICCATION WEIGHT	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
TOTAL SOLIDS	WATER	DRY WEIGHT	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
PHOSPHORUS	WATER	COLORIMETRY	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
PHOSPHORUS	DISSOLVED	COLORIMETRY	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
AMMONIA	WATER	TITRATION	MG/L	80	OBS	MONTHLY -	SURFACE,	1 SAMPLE PER

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
						JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	BOTTOM	OBS; 2 STATIONS
ORGANIC NITROGEN	WATER	TITRATION	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
NITRATE	WATER	COLORIMETRY	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
NITRITE	WATER	COLORIMETRY	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
OILS	WATER	EXTRACTION/ WEIGHT	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
MAGNESIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
CALCIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY -	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
ALUMINUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG/L	80	OBS	MARCH-OCTOBER MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
SILICON	WATER	COLORIMETRY	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
OILS	SEDIMENT	EXTRACTION/ WEIGHT	UG/KG	5	OBS	MONTHLY		5 STATIONS; JULY; 1 SAMPLE PER OBS
BIOCHEMICAL OXYGEN DEMAND	WATER	TITRATION	MG/L	16	OBS	MONTHLY	SURFACE	4 STATIONS; APRIL, JUNE, AUGUST, OCTOBER; 1 SAMPLE PER OBS
CADMIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	OBS	MONTHLY	SURFACE	5 STATIONS; JULY; 1 SAMPLE PER OBS
CHROMIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	OBS	MONTHLY	SURFACE	5 STATIONS; JULY; 1 SAMPLE PER OBS
NICKEL	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	OBS	MONTHLY	SURFACE	5 STATIONS; JULY; 1 SAMPLE PER OBS
LEAD	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	OBS	MONTHLY	SURFACE	5 STATIONS; JULY; 1 SAMPLE PER OBS
ZINC	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	OBS	MONTHLY	SURFACE	5 STATIONS; JULY; 1 SAMPLE PER OBS
IRON	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	OBS	MONTHLY	SURFACE	5 STATIONS; JULY; 1 SAMPLE PER OBS
MERCURY	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	OBS	MONTHLY	SURFACE	5 STATIONS; JULY; 1 SAMPLE PER OBS
CHROMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		5 STATIONS; JULY; 1 SAMPLE PER OBS
NICKEL	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		5 STATIONS; JULY; 1 SAMPLE PER OBS

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
LEAD	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		5 STATIONS; JULY; 1 SAMPLE PER OBS
ZINC	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		5 STATIONS; JULY; 1 SAMPLE PER OBS
IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		5 STATIONS; JULY; 1 SAMPLE PER OBS
MERCURY	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		5 STATIONS; JULY; 1 SAMPLE PER OBS
COUNT OF MICROBIOTA	WATER	VISUAL	COLONIES PER 100 ML	64	OBS	MONTHLY	SURFACE, BOTTOM	TOTAL AND FECAL COLIFORM COUNT; 4 STATIONS; APRIL, JUNE, AUGUST, OCTOBER; 2 SAMPLES PER OBS
CHLOROPHYLL A	WATER	FLUOROMETRY	MG/M3	4	STATIONS	MONTHLY	SURFACE, BOTTOM	4 STATIONS; JANUARY, MARCH-OCTOBER; 2 SAMPLES PER OBS
TOTAL PHAEOPHYTIN	WATER	FLUOROMETRY	MG/M3	4	STATIONS	MONTHLY	SURFACE, BOTTOM	4 STATIONS; JANUARY, MARCH-OCTOBER; 2 SAMPLES PER OBS
COUNT OF PHYTOPLANKTON	WATER	FILTRATION	NUMBER PER SPECIES PER ML PER SAMPLE	560	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	7 STATIONS; 2 SAMPLES PER OBS
SPECIES DETERMINATION OF PHYTOPLANKTON	WATER	KEY	SPECIES PER ML PER SAMPLE	560	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	7 STATIONS; 2 SAMPLES PER OBS
COUNT OF ZOOPLANKTON	WATER	FIXED, STAINED, ALIQUOT	NUMBER PER SPECIES PER M3 PER SAMPLE	560	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY -	SURFACE, BOTTOM	7 STATIONS; 2 SAMPLES PER OBS; 5-TENTHS M, 500-MICRON MESH NET USED IN SAMPLING;

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
						MARCH-OCTOBER		DAY SAMPLING
SPECIES DE.ERMINATION OF ZOOPLANKTON	WATER	KEY	SPECIES PER M3 PER SAMPLE	560	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-OCTOBER	SURFACE, BOTTOM	COUNT OF ZOOPLANKTON
MORTALITY OF ZOOPLANKTON	WATER	VISUAL	PERCENT OF TOTAL INDIVIDUALS PER SPECIES DEAD AT TIME OF SAMPLING PER SAMPLE	16	OBS	MONTHLY	SURFACE, BOTTOM	2 STATIONS; 1 SAMPLE PER OBS; MARCH, JULY, SEPTEMBER, NOVEMBER
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	SPECIES PER SAMPLE	135	OBS	MONTHLY		5 STATIONS; 3 SAMPLES PER OBS; APRIL-NOVEMBER; 523 CM2 PONAR SAMPLER
COUNT OF BENTHIC ANIMALS	BOTTOM	MICROSCOPE	NUMBERS PER SPECIES PER SAMPLE	135	OBS	MONTHLY		5 STATIONS; 3 SAMPLES PER OBS; APRIL-NOVEMBER; 523 CM2 PONAR SAMPLER
REACTIVE PHOSPHATE	WATER	COLORIMETRY	UG/L	72	OBS	MONTHLY	SURFACE, BOTTOM	

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH AMERICA, U.S., MAINE TO NEW JERSEY, COASTAL

ABSTRACT:
SINCE 1975, DR. SAUL B. SAILA AT THE UNIVERSITY OF RHODE ISLAND'S NARRAGANSETT BAY CAMPUS, NARRAGANSETT, RHODE ISLAND 02882. HAS BEEN OBSERVING NEOPLASM IN MYA ARENARIA (SOFT-SHELLED CLAM). NINE SITES FROM COASTAL MAINE TO NEW JERSEY WERE CHOSEN BY THE DEGREE OF ENVIRONMENTAL STRESS PRESENT. THESE POLLUTED, MODERATELY, AND HIGHLY POLLUTED STATIONS ARE VISITED AT QUARTERLY INTERVALS. PARAMETERS MEASURED INCLUDE: COUNT, SPECIES AND SEX DETERMINATION, LENGTH, WET AND SHUCKED WEIGHT, AND MORPHOMETRIC MEASUREMENT OF BENTHIC ANIMALS. HISTOLOGICAL SLIDES OF DISEASED CLAMS, AND STORED TISSUE OF NEOPLASTIC CLAMS ARE AVAILABLE. THE DATA ARE STORED ON PUNCHED CARDS, 1 CARD FOR EACH OF THE 1,800 CLAMS STUDIED SO FAR.
(NINE SITES FROM COASTAL MAINE TO NEW JERSEY WERE CHOSEN BY THE DEGREE OF ENVIRONMENTAL STRESS. THESE SITES ARE VISITED AT QUARTERLY INTERVALS)

DATA AVAILABILITY:
RESTRICTED TO QUALIFIED INVESTIGATORS AT COST OF REPRODUCTION

PLATFORM TYPES:
FIXED STATION

ARCHIVE MEDIA:
PUNCHED CARDS; SAMPLES
1,800 PUNCHED CARDS; 1800 SLIDES

FUNDING:

INVENTORY:

PUBLICATIONS:

CONTACT:
DR. SAUL B. SAILA 401 792 6239
UNIVERSITY OF RHODE ISLAND
NARRAGANSETT BAY CAMPUS, MARINE BUILDING
NARRAGANSETT RHODE ISLAND USA 02882

GRID LOCATOR (LAT):
730794 740619 740639 740647 740648 740702 740703 740710 740711 740712 740713 740720 740730

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
TIME	EARTH	STATION TIME	YMDL	9 STATIONS			
POSITION	EARTH	FIXED POINT	DM	9 STATIONS			
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY		9 STATIONS	4 OBS/YR		MYA ARENARIA (SOFT-SHELLED CLAMS)
COUNT OF BENTHIC	BOTTOM	VISUAL	INDIVIDUALS/ SPECIES	9 STATIONS	4 OBS/YR		1,800 CLAMS

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
ANIMALS							
MORPHOMETRIC MEASURE OF BENTHIC ANIMALS	BOTTOM	DIRECT	MM, TO THE NEAREST FIVE-TENTHS MM	9 STATIONS	4 OBS/YR		WIDTH, DEPTH OF MYA ARE MEASURED
LENGTH OF BENTHIC ANIMALS	BOTTOM	DIRECT	MM, TO THE NEAREST FIVE-TENTHS MM	9 STATIONS	4 OBS/YR		
WEIGHT OF BENTHIC ANIMALS	BOTTOM	WET WEIGHT	G	9 STATIONS	4 OBS/YR		
WEIGHT OF BENTHIC ANIMALS	BOTTOM	DRESSED WEIGHT	G	9 STATIONS	4 OBS/YR		SHUCKED WEIGHT IS THE WEIGHT OF THE CLAM WITHOUT THE SHELL
SEX DETERMINATION OF BENTHIC ANIMALS	BOTTOM	VISUAL		9 STATIONS	4 OBS/YR		
SAMPLE OF BENTHIC ANIMALS	BOTTOM	VARIOUS		9 STATIONS	4 OBS/YR		HISTOLOGICAL SLIDES AND STORED TISSUE OF DISEASED CLAMS ARE AVAILABLE
BIOLOGICAL CONDITION OF BENTHIC ANIMALS	BOTTOM	PATHOLOGICAL		9 STATIONS	4 OBS/YR		

PROJECTS:

GENERAL GEOGRAPHIC AREA:
NORTH ATLANTIC OCEAN

ABSTRACT:
THE ENVIRONMENTAL PROTECTION AGENCY, ENVIRONMENTAL RESEARCH LABORATORY, HAS BEEN COLLECTING DATA SINCE MARCH 1974 FROM TWO OCEAN DISPOSAL SITES APPROXIMATELY 60 MILES OFF THE COAST OF MARYLAND. THE PARAMETERS INCLUDED IN THIS STUDY ARE: ALUMINUM, CADMIUM, CHROMIUM, COBALT, COPPER, IRON, LEAD, MANGANESE, NICKEL, SILVER, TITANIUM, VANADIUM AND ZINC IN BOTH THE SEDIMENT AND ORGANISMS. MEASUREMENTS OF METALS IN CLAMS AND SCALLOPS ARE SEPARATED BY MUSCLE AND ORGANS. OTHER PARAMETERS INCLUDED ARE: SPECIES DETERMINATION OF BENTHIC ANIMALS, WEIGHT OF BENTHIC ANIMALS AND LENGTH OF BENTHIC ANIMALS. CONTACT DR. D.K. PHELPS, SCIENTIFIC AND TECHNICAL DIRECTOR, EPA ENVIRONMENTAL RESEARCH LABORATORY, SOUTH FERRY ROAD, NARRAGANSETT, RHODE ISLAND 02882.

DATA AVAILABILITY:

PLATFORM TYPES:
SHIP

ARCHIVE MEDIA:
MAGNETIC DISC
1 DISC (531200 BYTES)

FUNDING:

INVENTORY:

PUBLICATIONS:

CONTACT:
DR. D.K. PHELPS 401 789 1071
ENVIRONMENTAL PROTECTION AGENCY - REGION 1 ENVIRONMENTAL RESEARCH LABORATORY
SOUTH FERRY ROAD
NARRAGANSETT RHODE ISLAND USA 02882

GRID LOCATOR (LAT):
730773 730774 730783 730784

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
TIME	EARTH	STATION TIME	YMD	30 STATIONS			
POSITION	EARTH	LONG RANGE NAVIGATIONAL NET	DMS	30 STATIONS			
ALUMINUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			
CADMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			
CHROMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			
COBALT	SEDIMENT	ATOMIC ABSORPTION	PPM DRY WEIGHT	30 STATIONS			

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
MANGANESE IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
NICKEL IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
SILVER IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
TITANIUM IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
VANADIUM IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
ZINC IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY		30 STATIONS			CLAMS AND SCALLOPS
LENGTH OF BENTHIC ANIMALS	BOTTOM	DIRECT		30 STATIONS			
WEIGHT OF BENTHIC ANIMALS	BOTTOM	WET WEIGHT		30 STATIONS			
POSITION	EARTH	SHORT RANGE NAVIGATIONAL NET	DMS	30 STATIONS			MINI RANGER III

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
MANGANESE IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
NICKEL IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
SILVER IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
TITANIUM IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
VANADIUM IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
ZINC IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY		30 STATIONS			CLAMS AND SCALLOPS
LENGTH OF BENTHIC ANIMALS	BOTTOM	DIRECT		30 STATIONS			
WEIGHT OF BENTHIC ANIMALS	BOTTOM	WET WEIGHT		30 STATIONS			
POSITION	EART-	SHORT RANGE NAVIGATIONAL NET	OMS	30 STATIONS			MINI RANGER III

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ANNEX II

Data Files

Part B

Data File Index - Listed by Key Word

Shellfish Bed Closures

This index contains an alphabetical listing by key word of the data files in this annex. After some key words is a number or series of numbers which reference the page numbers of the particular file(s) within this report. Most of the files are referenced by more than one key word. Underlined numbers indicate files generated after January 1, 1973.

The key words which do not reference any relevant files are included to indicate the extent of the file search.

ANNEX II

Part B
Data File Index-Listed by Key Word

Shellfish Bed Closures

2,4-D (sediment) - herbicide
none

2,4-D (suspended)
none

2,4-D (water)
none

2,4-D in bio material (bottom)
none

2,4,5-T (sediment) - herbicide
none

2,4,5-T (suspended)
none

2,4,5-T (water)
none

2,4,5-T in bio material (sediment)
none

2,4,5-T in bio material (suspended)
none

2,4,5-T in bio material (water)
none

ABS
use surfactants

acaraben
use chlorobenzilate

aldrin (sediment) - insecticide
31

aldrin (water)
none

aldrin in bio material (bottom)
none

aldrin in bio material (water)
31

aliphatic hydrocarbons (dissolved)
none

aliphatic hydrocarbons (sediment)
none

aliphatic hydrocarbons (water)
none

aliphatic hydrocarbons in bio material (water)
none

alpha activity (dissolved)
none

alpha activity (sediment)
none

alpha activity (suspended)
none

alpha activity (water)
none

alpha B.H.C.
use lindane

ametryne (water) - herbicide
none

ammonia (dissolved)
none

ammonia (interstitial)
none

ammonia (sediment)
none

arsenic in bio material (bottom)
none

arsenic in bio material (water)
none

asbestos
use amphibol. chrysotile.

atrazine (water) - herbicide
none

atrazine in bio material (bottom)
none

atrazine in bio material (water)
none

benzopyrene (water)
none

beryllium (dissolved)
none

beryllium (sediment)
none

beryllium (suspended)
none

beryllium (water)
none

beryllium in bio material (bottom)
none

beryllium in bio material (water)
none

beta activity (dissolved)
none

beta activity (sediment)
16

beta activity (suspended)
none

cesium - 137 (water)
none

chlordane (sediment) - insecticide
31

chlordane (water)
none

chlordane in bio material (bottom)
none

chlordane in bio material (water)
31

chlorinated hydrocarbons (sediment) - pesticide
none

chlorinated hydrocarbons (water)
none

chlorinated hydrocarbons in bio material (water)
none

chlorine (sediment)
none

chlorine (water)
none

chlorine in bio material (bottom)
none

chlorine in bio material (water)
none

chlorobenside (water) - pesticide
none

chlorobenzilate (water) - insecticide
none

chloroform (water)
none

chromium (dissolved)
none

chromium (interstitial)
none

chromium (sediment)
21, 51, 65, 68, 83, 92

chromium (suspended)
none

chromium (water)
65, 83

chromium in bio material (bottom)
48, 92

chromium in bio material (sediment)
none

chromium in bio material (water)
48, 65

chrystile (water) - asbestos
none

coliform
use terms listed under microbiota

coliform index
use count of microbiota

commercial fisheries activities (bottom)
78

copper (dissolved)
none

copper (interstitial)
none

copper (sediment)
21, 51, 65, 68, 80, 92

copper (suspended)
none

copper (water)
65, 80

DDD in bio material (bottom)
none

DDD in bio material (water)
31, 37, 45, 72

DDE (sediment) - insecticide
31

DDE (water)
none

DDE in bio material (bottom)
none

DDE in bio material (water)
31, 37, 45, 72

DDT (dissolved) - insecticide
none

DDT (sediment)
31

DDT (water)
none

DDT in bio material (bottom)
none

DDT in bio material (water)
31, 37, 45, 72

delta B.H.C.
use lindane

detergents (water)
none

diazinon (sediment) - pesticide
none

diazinon (water)
none

diazinon in bio material (bottom)
none

diazinon in bio material (water)
none

dicamba (water) - herbicide
none

dicamba in bio material (water)
none

dichlone (water) - herbicide
none

dicofol (sediment) - insecticide
none

dicofol (water)
none

dieldrin (dissolved) - insecticide
none

dieldrin (sediment)
31

dieldrin (water)
none

dieldrin in bio material (bottom)
none

dieldrin in bio material (water)
31, 37, 45, 72

dilan (water) - insecticide
none

dilan in bio material (bottom)
none

dimethoate (water) - insecticide
none

dinitrophenol (water) - herbicide
none

dinitrophenol in bio material (water)
none

diquat (water) - herbicide
    none

diquat in bio material (water)
    none

distribution of benthic animals
    use count of benthic animals, species determination of benthic animals

diuron (water) - herbicide
    none

dylox
    use trichlorfon

dyrene (water) - fungicide
    none

endosulfan
    use thiodan

endrin (sediment)
    31

endrin (water)
    none

endrin in bio material (bottom)
    none

endrin in bio material (water)
    31

epsilon B.H.C.
    use lindane

ethion (sediment) - pesticide
    none

ethion (water)
    none

fecal coliform
    use terms listed under microbiota

fishing
use catch/effort, commercial fisheries activities

folpet (water) - fungicide
none

fuel oil (water)
none

fungicide
use captan, dyrene, folpet

furadan
use carbofuran

gamma activity (sediment)
none

gamma activity (water)
none

gamma activity in benthic animals (bottom)
none

gamma activity in bio material (water)
none

gamma B.H.C.
use lindane

gasoline (water)
none

grease
use oils

gross activity (suspended)
none

gross alpha activity
use alpha activity

gross beta activity
use beta activity

gross gamma activity
use gamma activity

growth studies of microbiota (water)
    none

guthion (water) - pesticide
    none

guthion in bio material (water)
    none

heavy metals
    use cadmium, copper, lead, mercury, nickel, zinc

heptachlor (sediment) - insecticide
    none

heptachlor (water)
    none

heptachlor epoxide (sediment) - insecticide
    none

heptachlor epoxide (water)
    none

heptachlor epoxide in bio material (bottom)
    none

heptachlor epoxide in bio material (water)
    none

heptachlor in bio material (bottom)
    none

heptachlor in bio material (water)
    none

herbicide
    use 2,4-D, 2,4,5-T, ametryne, atrazine, CDEC, dacthal, dicamba, dichlone, dinitrophenol, diquat, diuron, hexachlorobenzene, neburon, paraquat, silvex, simazine, trifluralin

hexachlorobenzene (water) - herbicide
    none

hexachlorobenzene in bio material (water)
    none

nickel in bio material (sediment)
none

nickel in bio material (water)
65

oil degradation (sediment)
none

oil degradation (water)
none

oil slick coverage (water)
none

oil slick occurrence (sediment)
none

oil slick occurrence (water)
none

oils (sediment)
80, 83

oils (water)
83

oils in bio material (bottom)
none

oils in bio material (water)
none

ortho-para DDD
use DDD

ortho-para DDE
use DDE

ortho-para DDT
use DDT

para-para DDD
use DDD

para-para DDE
use DDE

para-para DDT
use DDT

paraquat (water) - herbicide
none

parathion (sediment)
none

parathion (water)
none

parathion in bio material (bottom)
none

parathion in bio material (water)
none

PCB
use polychlorinated biphenyls

perthane (water) - insecticide
none

pesticide
use carbaryl, chlorinated hydrocarbons, chlorobenside, diazinon, ethion, guthion, melathion, methylparathion, methyltrichion, mirex, trithion

phenols (dissolved)
none

phenols (sediment)
none

phenols (water)
none

phenols in bio material (water)
none

phorate
use thimet

phosdrin (water) - insecticide
none

standing crop
use count

surfactants (water)
none

tar balls (water)
none

taxonomic list of benthic animals (bottom)
14, 25, 76

taxonomic list of microbiota (sediment)
14

taxonomic list of microbiota (water)
14

TDE
use DDD

tedion (water) - insecticide
none

telodrin (sediment)
none

telodrin (water)
none

tetradifon
use tedion

thallium (sediment)
none

thallium (water)
none

thallium in bio material (water)
none

thimet (water) - insecticide
none

thiodan (sediment) - insecticide
none

thiodan (water)
none

thorium - 228 (water)
none

total 2,4-D
use 2,4-D

total 2,4,5-T
use 2,4,5-T

toxaphene (sediment) - insecticide
31

toxaphene (water)
none

toxaphene in bio material (bottom)
none

toxaphene in bio material (water)
31

toxins in bio material (bottom)
none

toxins in bio material (water)
none

trichlorfon (water) - insecticide
none

trifluralin in bio material (bottom) - herbicide
none

trifluralin in bio material (water)
none

trithion (sediment) - pesticide
none

trithion (water)
none

vegadex
use CDEC

volume determination of microbiota (sediment)
none

volume determination of microbiota (water)
none

weight of microbiota (sediment)
none

weight of microbiota (water)
none

zinc (dissolved)
none

zinc (interstitial)
none

zinc (sediment)
21, 51, 65, 68, 80, 83, 92

zinc (suspended)
none

zinc (water)
65, 80, 83

zinc in bio material (bottom)
48, 92

zinc in bio material (sediment)
none

zinc in bio material (water)
8, 9, 11, 12, 27, 39, 48, 65

ANNEX III

Monitoring Program

Shellfish Bed Closures