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EFA 903/9-78-025



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

Region III Library Environmental Protection Agency

Chesapeake Research Consortium, Incorporated

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University of Maryla
Smithsonian Instituti
Virginia Institute of
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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

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, photokilling 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.

Benthic invertebrates.

Chesapeake Biological Laboratory, University of Maryland

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 LIGHTY TO A SELECTION OF FILL LESCRIPTIONS FACT THE ENDER SYSTEM. IT PROVIDE IS TO COLOR USERS WITH REQUIR VENTS FOR HISTORICAL ENVIRONMENTAL DATA TO FICOLOGY OF TISSED DATA.

THIS COTPUT THE SELECTION FROM THE ENTIRE FILE EXSED ON CERTAIN CRITERIA SPECIFIED BY THE UNER. THESE CRITERIA ARE REPEATED BELOW:

EULO

THE OUTPUT IS IN TWO PATES. FIRST IS A LISTING OF ALL THE EDGD'S SELECTED, PRINTED IN ID NO MER CROSER. AT THE BACK OF EACH OUTPUT MAY BE A CHOSE-IND X, LISTING SUCH THINGS AS MHOOM FILE DESCRIPTIONS MASCRIBE DATA. DELECTED OF FACH PLAT-COM THEE, OR MOOCH FILE DESCRIPTIONS HAVE DATA IN EACH GRID MUCCATOR. THIS SECTION WILL VARY DEFENDING 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 PALE. 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 -- BELINS WITH CONTINENT OR OCEAN IN WHICH DATA WERE COLLECTED AND DESCRIBES SMALLER AND SMALLER AREAS TO GIVE USER A GENERAL AREA OF LATA COLLECTION.

ABSTRACT TH CONTAINS GENERAL INFORMATION ABOUT WHY THE DATA WERE COLLECTED AND WHERE, METHODS OF A ALYSIS AND PERTINENT CONCLUSIONS.

DATA AVAILABILITY -- CONTAINS RESTRICTIONS ON DATA USE, IF BLANK IT MEANS THERE A'E NO KILL 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 (WYO) 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 COAN TO TO-DEGREE SQUAPES UPLATITUDE AND LONGITUDE OR TO THE DECREE. TO-MINUTE, OR 1-MINUTE SQUARES.

FOR A 4-DIGIT GRID LOCATOR THE NUMBERS ARE AS FOLLOWS: DIGIT 1 -- QUADRATE OF WOLLD: 1-NE, 3-SE, 5-SW, 7-NW.

DIGIT 2 -- TENS D. AT OF LATITUDE.
DIGITS 3/4 -- HULL EDS A SITE DIGITS OF LONGITUDE.

THUS 7408 WOULD BE THE 10-3 LGRE - JULY & OF WHICH THE POINT 40N AND 080W IS THE LOWER RIGHT HAY JULIES

FOR A SIX DIGIT NUBBER. DIGITS 5 AND 6 REPRESENT THE UNITS DIGITS OF LATITUDE AND LONGITUDE. THUS 748313 WOULD IDENTIFY THE 1-DEGREE SPIRE OF 42N MOD GEST.

WITH AN E-DIGIT NUVBER, 740015 OF REPRESENTS THE SQUARE AT 42-DEGREES, 30-MINUTES NORTH AND 183-30. I.L., 40-NONTES AND DE TO-MINUTE SQUARE.

THE SWALLEST AREA IDENTIFIED IN TO SUITE IS A 1-MINUTE SQUARE,

UR A 1-DIGIT CRID & CATCR (E.C., FIC., CAIS, CAIS IS 42-CLORESS

31-MILLIES NORTH AND 085-DEGRESS, AS-MINUTES (EST).

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 PREQUENCY (IF HIGGLARLY SPACED) ARE REPORTED. A SPECIALIZED ENDEX

VOCABBLEARY 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.

C.0172

HURRICANE AGNES CLAM SURVEY PROGRAM DATA COLLECTED: JANUARY 1973 TO MARCH 1973

PAGE 01 RECEIVED: NOVEMBER 14, 1973

PROJECTS:

GENERA' GEOGRAPHIC AREA:

NURTH 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 PRINTOUIS

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

	NAME	SPHERE	METHOD	UNITS	DATA AMO	JNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
	POSITION TIME	EARTH EARTH	FIXED POINT STATION TIME	MAP YMD	31000 31000	STATIONS STATIONS	• • • • • • • • • • • •	••••••	•••••
	DEPTH	WATER	WIRE LENGTH	FEET	31000	OBS	1 TIME EACH STATION	BOTTOM	
	BOTTOM TYPE	BOTTOM .	VÍSUÁL	SOFT, MEDIUM, HARD, DYSTER	31000	085	1 TIME EACH	BOTTOM	
	COUNT OF BENTHIC ANIMALS	BOTTOM	VISUAL	PER CENT OF SAVPLE THAT WAS MARKET SIZE	31000	NBS	1 TIME EACH STATION	BOTTOM	SOFT CLAM ONLY, 12 SQ FT SAMPLE WITH CUTTING HEAD DREDGE
•	VOLUME DETERMINA	BOTTON	VISUAL	BUSHELS PER	31000	OBS	1 TIME EACH	BOTTOM	DAEOGE

HEDRICANE ACH & CLAM SULVEY PROGRAM (CONT.)

PAGE 02

PARAMETER IDENTIFICATION SECTION:

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

007

HEAVY METALS IN HARD CLAMS
DATA COLLECTED: MARCH 1972 10 FEBRUARY 1973

PAGE 01 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 DBS

FUNDING:

INVENTORY:

PUBLICATIONS:

CONTACT:

ANIMALS

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 AMO	UNT	FREQUENCY	HE IGHT/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	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	400	OBS			MERCENARIA MERCENARIA
CADMIUM IN BIO	WATER	ATOMIC ABSORPTION SPECTROMETRY		400	OBS			MERCENARIA MERCENARIA
SPECIES DETERMINATION OF BENTHIC	BOTTOM	KEY	NAME	1	OBS		•	MERCENARIA MERCENARIA

800

HEAVY SETALS IN HARE CLAMS AND DYSTERS DATA COLLECTED: MOVEMBER 1972 TO DECEMBER 1972

PAGE 01 RECEIVED: MAY 16, 1973

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 DYSTERS 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

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION TIME	EARTH EARTH	FIXED POINT STATION TIME	MAP LOCATIONS	20 20	STATIONS STATIONS	,	••••••	• • • • • • • • • • • • • • • • • • • •
COPPER IN BIO MATERIAL	YATER	ATOMIC ABSORPTION SPECTROMETRY	PARIS PER MILLION	130	085			CRASSOSTREA VIRGINICA, MERCENARIA
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER WILLION	130	OBS			MERCENARIA CRAJSOSTREA VIRGINICA, MERCENARIA
CADMIUM IN BIO	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	130	CBS			MERCENARIA CRASSOSTREA VIRGINICA, MERCENARIA
SPECIES	BOTTOM	KEY	NAME	130	08\$			MERCENARIA CRASSOSTREA

HEAVY METALS IN HARD CLAMS AND DYSTERS (CONT.)

DAGE /

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		*************	• • • • • • • • • • • • • • • • • • • •	•••••	• • • • • • • • • • • • • • • • • • • •
DETERMINATION							VIRGINICA.
OF BENTHIC							MERCENARIA
ANIMALC							MEDCENADIA

) [(

HEAVY META'S IN DYSTERS
DATA COLLECTED: DECEMBER 1970 TO FEBRUARY 1971

PAGE 01 RECEIVED: MAY 16, 1973

PROJECTS:

GENERA' GEOGRAPHIC AREA:

U.S., COASTAL, NORTH ATLANTIC, CHESAPEAKE BAY, VIRGINIA, JAMES RIVER, YORK RIVER, RAPPAHANNOCK RIVER, VIRGINIA

ABSTRACT:

HEAVY METALS IN DYSTERS (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

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION TIME	EARTH EARTH	FIXED POINT STATION TIME	MAP LOCATIONS	95 450	STATIONS STATIONS	•••••		•••••
COPPER IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY		450	OBS	,	BOTTOM	CRASSOSTREA VIRGINICA
CADMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	— -	450	OBS		BOTTOM	CRASSOSTREA VIRGINICA
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARIS PER MILLION, BODY WET WEIGHT	450	085		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 PAGE 01 RECEIVED: MAY 01, 1978

PROJECTS:

GENERAL GEOGRAPHIC ALCA:

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 IM THE JAMES AND RAPFIHANNOCK 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

NAME	SPHERE	METHOD	UNITS	DATA AMOU	JNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION	EARTH		RIVER MILES	60	STATIONS		•••••••	• • • • • • • • • • • • • • • • • • • •
TIME	EARTH	STATION TIME	YMDL	60	STATIONS			
COPPER IN BIO Material	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARIS PER MILLION	600	OBS			RANGIA CUNEATA
ZINC IN BIO Material	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	600	08\$			RANGIA CUNEATA
CADMIU : IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARIS PER MILLION	600	08\$			RANGIA CUNEATA
SIZE ANALYSIS	SEDIMENT	SETTLING/VISUAL	PERCENT SAND. SILT, CLAY	60	08\$			
LENGTH OF BE:\THIC ANIMALS	BOTTOM	DIRECT	CENTIMETERS	600	OBS			RANGIA CUNEATA
BIOMASS OF BENTHIC ANIMALS	BOTTOM	WET WEIGHT	GRAMS	600	CBS			RANGIA CUNEATA

HEAVY METALS IN RANGIA CUNEATA (CONT.)

PAGE 02

NAME	SPHERE	METHOD	UNITS	DATA AMOU			REMARKS
SPECIES DETERMINATION DF BENTHIC ANIMALS	BOTTOM	KEY	NAME	60	OBS		RANGIA CUNEATA

PAGE 01 RECEIVED: JUNE 04, 1973

PROJECTS:

GENERA' 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:

INVENTURY:

PUBLICATIONS:

SPECIAL SCIENTI C 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

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMOL	TNL	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 ORUER COMMON NAME INCLUDED	1005	OBS			FREE LIVING INVERTEBRATES INCLUDED
TAXONOMIC LIST OF PHYTOPLANKTO N	WATER	KEY	NAMED AND LISTED IN TAXONOMIC ORDER COMMON NAME INCLUDED	1171	nas			NUMBER INCLUDES HIGHER BENTHIC PLANTS AND PHYTOPLANKTON
TAXONOMIC LIST	WATER	KEY	NAMED AND	286	085			NUMBER INCLUDES

014

A CHECKLIST OF THE BIOTA OF LOWER CHESAPLAKE BAY (CONT.)

PAGE 02

	NAME	SPHERE	METHOD	UNITS	DATA AMO	TAUC	FREQUENCY	HEIGHT/DEPTH	REMARKS
	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
	OF PELAGIC FISH			LISTED IN TAXOHOMIC ORUER COMMON NAME INCLUDED					PELAGIC AND DEMERSAL FISH
	TAXONOMIC LIST OF DEMERSAL FISH	WATER	KEY	NAMED AND LISTED IN TAXONOMIC GRUER COMMON NAME INCLUDED	286	OBS			NUMBER INCLUDES PELAGIC AND DEMERSAL FISH
	TAXONOMIC LIST OF MICROBIOTA	WATER	KEA	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 GROER 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

RADIOACTIVITY STUDIES OF SEDIMENTS AT CALVERT CLIFFS DATA COLLECTED: OCTOBER 1971 TO PRESENT

PAGE C. RECEIVED: JUNE 04, 1973

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, PM. 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

OF GRID LOCATOR (LAT):

730786

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	6	STATIONS	4/YEAR	••••••	
T I ME H4	EARTH WATER	STATION TIME SPECIFIC ION ELECTRODE	YMDL UNITS	72 72	STATIONS OBS	4/YEAR 4/YEAR	SURFACE AND BOTTOM	
SALINITY	KSTAW	CONDUCTIVITY	PARIS PER THOUSAND	72	089	4/YEAR	SURFACE AND BOTTOM	
LICHT ATTENUATIO	#ATE#	SPECTROPHOTOMETRY	PARIS PER MILLION	72	085	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	BOTTOM	PLANCHET GAS FLOW COUNTER	PICOCURIES PER GRAM	100	OBS	4/YEAR	BOTTOM	BLUE CRABS, OYSTERS AND





PAGE 02

PARAMETER :	IDENTIF	CATION	SECT	ION:

	NAME	SPHERE	METHOD	UNITS	DATA AMOU	NT	FREQUENCY	HE IGHT/DEPTH	REMARKS
	•••••	• • • • • • • • • • • • • • • • • • • •	*************	************	• • • • • • • •	• • • • • • • • •	•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
	ANIMALS								VARIOUS OTHER ORGANISMS
	BETA ACTIVITY IN PELAGIC FISH	WATER	PLANCHET GAS FLOW COUNTER	PICOCURIES PER GRAM		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
01		BOTTOM	PLANCHET GAS FLOW COUNTER	PICOCURIES PER GRAM	120	08S	4/YEAR	BOTTOM	ULVA SP, MONOSTOMA SP, ECTEROMORPHA
\sim		•						i	SP, ECTOCARPUS SP
	SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY .	NAME	100	OBS	4/YEAR	BOTTOM	BLUE CRABS, OYSTERS AND VARIOUS OTHER
	SPECIES DETERMINATION OF PELAGIC FISH	WATER	KEY	NAME	6	OBS	4/YEAR	SURFACE AND BOTTOM	ORGANISMS WHITE PERCH, BLUE FISH, STRIPED BASS, SPOT. BAY ANCHOVY, MEMDIA, VARIANCE COMPUTED BETWEEN AND
	SPECIES DETERMINATION OF DEMERSAL FISH	WATER	KEY	NAME	6	085	4/YEAR	SURFACE AND BOTTOM	WITHIN SPECIES WHITE PERCH, BLUE FISH, STRIPED BASS, SPOT, BAY ANCHOVY, MEMDIA, VARIANCE COMPUTED BETWEEN AND
	SPECIES DETERMINATION	BOTTOM	KEY	NAME	4	OBS	4/YEAR	BOTTOM .	WITHIN SPECIES ULVA SP. MONOSTOMA SP.

RADIOACTIVITY STUDIES OF SEDIMENTS AT CALVERT CLIFFS (CONT.)

PAGE 03

PARAMETER IDENTIFICATION SECTION:

NAME SPHERE METHOD UNITS DATA AMOUNT FREQUENCY HEIGHT/DEPTH REMARKS

OF BENTHIC PLANTS

ECTEROMORPHA SP, ECTOCARPUS SP

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e01118

BENTHIC MACROINVERTERRATE COMMUNITIE: AS INDICATORS OF POLLUTION IN THE ELIZABETH RIVER, HAMPTON ROADS, VIRGINIA

DATA COLLECTED: JANUARY 1965 TO AUGUST 1969

PAGE 01

RECEIVED: JULY 13, 1973

2 .

PROJECTS:

GENERAL GEOGRAPHIC AREA:

U.S., COASTAL, NORTH ATLANTIC, CHESAPEAKE BAY, VIRGINIA, ELIZEBETH 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

CO GRID LOCATOR (LAT):

730766

PARAMETER IDENTIFICATION SECTION:

	NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
	POSITI +	EARTH EASTH	FIXED POINT STATION TIME	MAP LOCATION	12 36	STATIONS STATIONS	• • • • • • • • • • • • •	••••••	
	DISSOLVED OXYGEN GAS	WATER	TITRATION	MILLIGRAMS PER LITER	12	OBS		BOTTOM	
•	SIZE ANALYSIS	SEDLMENT	SETTLING/VISUAL	PERCENT SILT, CLAY SAND	36	OBS		BÛTTÛM	SAMPLES OBTAINED WITH A 0.06 M SQ PETERSON GRAB AND A 0.07 M SQ VAN VEEN GRAB
	DEPTH COUNT OF BENTHIC	WATER BOTTOM	WIRE LENGTH VISUAL	METERS NUMBER OF INDIVIDUALS	36 36	08 S 08 S		BOTTOM	SAMPLES OBTAINED WITH

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BENTHIC MACROINVERTEBRATE COMMUNITIES AS INDICATORS OF POLLUTION IN THE (CONT.) ELIZABETH RIVER, HAMFTON ROADS, VIRGINIA

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AN	OUNT	FREQUENCY	HE IGHT/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 DETERMINATI OF BENTHIC ANIMALS	BOTTOM Ion	KEY	NUMBER OF SPECIES PER STATION, NUMBER OF INDIVIDUALS PER SPECIES PER SAMPLING PERIOD	36	OBS		BOTTOM	GRAB BIOLOGICAL INDEX OF DOMINANCE, DENSITY, FREQUENCY, DISPERSAL, DOMINANCE AFFINITY
DIVERSITY IN OF BENTHIC ANIMALS	NDEX BCTTOM	SHANNON-WEAVER	NUMBERS	36	OBS		BOTTOM	COMPUTED

020

001062

TRACE METAL ENVIRONMENTS NEAR SHELL BANKS IN DELAWARE BAY DATA COLLECTED: JANUARY 1972 TO JANUARY 1973

PAGE 01
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 CHARACTERIZEC 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

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION TIME IRON	EARTH EARTH SED:MENT	FIXED POINT STATION TIME	OMT YML PARTS PER MILLION	92 1 92	STATIONS STATIONS OBS	•••••	*******	63 MICRON SEDIMENT FRACTION. HCL
MAGNESIUM	SEDIMENT	ATOMIC ABSORPTION SPE: TROMETRY	PARIS DER MILLION	92	0 9 \$			EXTRACTION 63 MICRON SEDIMENT FRACTION, HCL
ZINC	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARIS PER MILLION	92	OBS			EXTRACTION 63 MICRON SEDIMENT FRACTION, HCL EXTRACTION

TRACE METAL ENVIRONMENTS HEAR SHELL BANKS IN DELAWARE BAY (CONT.)

-AGE .)

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
CHROMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	OBS			63 MICRON SEDIMENT FRACTION. HCL
COPPER	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	OBS			EXTRACTION 63 MICRON SEDIMENT
LEAD	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARIS PER MILLION	92	OBS			FRACTION, HCL EXTRACTION 63 MICRON SEDIMENT
CADMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	088			FRACTION, HCL EXTRACTION 63 MICRON SEDIMENT
NICKEL	SED ! MENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	OBS			FRACTION, HCL EXTRACTION 63 MICRON SEDIMENT FRACTION, HCL
STRONTIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	92	OBS			EXTRACTION 63 MICRON SEDIMENT FRACTION, HCL
MERCURY	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER BILLION	92	08\$			EXTRACTION 63 MICRON SEDIMENT FRACTION, HCL EXTRACTION

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WATER QUALITY SURVEY OF LOWER CHESAPEAKE BAY DATA COLLECTED: MARCH 1973 TO MARCH 1973

PAGE 0: RECEIVED: JULY 31, 1973

3. 1

PROJECTS:

GENERA' 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:

INVENTURY:

PUBLICATIONS:

CONTACT:

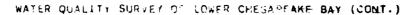
DONALD ADAMS 804-489-8000
OLD DOMINION UNI ERSITY
INSTITUTE OF OCEANOGRAPHY
NORFOLK VIPGINIA USA 23508

GRID LOCATOR (LAT): 730776 730775

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	20	STATIONS	• • • • • • • • • • • • •	••••••	•••••
: iME	EARTH	STATION TIME	YMDL	1	STATIONS			
TEMPERATURE	WATER	NON-REVERSING THERMOMETER	DEG C	66	08\$		SURFACE TO BOTTOM	
SALINITY	WATER	CONDUCTIVITY	PARTS PER THOUSAND	66	0-5		SURFACE TO BOTTOM	
PH	WATER	SPECIFIC ION ELECTRODE	PH UNITS	66	OBS		SURFACE TÜ 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 PEP LITER	66	OBS		SURFACE TO BOTTOM	
PARTICULATE	WATER	MEMBRANE	MILLIGRAMS PER	68	08\$		SURFACE TO	

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PARAMETER IDENTIF SATION SECTION:

NAME	SPHFOR	METHOD	UNITS	DATA AMO	DUNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
		•••••		• • • • • • •	• • • • • • • • • •		••••••••••	
VATTER		FILTRATION	LITER				BOTTOM	
DEPTH	WATER	WIRE LENGTH	FEET	66	OBS			DEPTH OF SAMPLE
BIOCHEMICAL	WATER	TITR/TION	MILLIGRAMS PER	66	OBS		SURFACE TO	
OXYGEN DEMAND			LITER				BOTTOM	
CHEMICAL DXYGEN	WATER	TITRATION	MILLIGRAMS PER	66	OBS		SURFACE TO	
DEMAND			LITER				BOTTOM	
COUNT OF	WATER	VISUAL	NUMBER PER 100	66	08\$		SURFACE TO	FECAL COLIFORM
MICROBIOTA			MILLILITERS				BOTT OM	
METHANE IN BIO	WATER	GAS CHROMATOGRAPH	ML X10 -5 PER	60	OBS		SURFACE TO	
MATERIAL		Y	LITER				BOTTOM	

220

CJ 1083

PESCH OFFICHS OF FECAL PELLETS OF SOME COMMON INVERTEBRATES IN THE LOWER YORK

RIVER AND LOWER CHESAFEAKE BAY, VIRGINIA

DATA COLLECTED: 1964 TO OCTOBER 1965

RECEIVED: JULY 31, 1973

2 .

PAGE 01

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 *HESIS, 1966, J N KRAEUTER

CONTACT:

LIBRARIAN 804-642-2111

VIRGINIA INSTITUTE OF MARINE SCIENCE

GLOUCESTER POINT VIRGINIA USA 23062

GRID LOCATOR (LAT):

NAME	SPHERE	METHOD	UNITS	DATA AMO	JNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	2	STATIONS	•••••	••••••	COLLECTION AREAS OF LOWER YORK RIVER AND HAMPION ROADS CONSIDERED AS
TIME	EARTIS	STATION TIME	YL	2	STATIONS			TWO STATIONS COLLECTION AREAS OF LOWER YORK RIVER AND HAMPTON ROADS
FECAL ANALYSIS	BOTTOM	VISUAL	VARIABLE	71	088			CONSIDERED AS TWO STATIONS FECAL PELLET

DESCRIPTIONS OF FECAL PELLETS OF SOME COMMON INVERTES IN THE LOWER YORK (CONT.) RIVER AND LOWER CHESAFEAKE UA. VIRUINIA

PAGE 01

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIG. T/DEPTH	REMARKS
OF BENTHIC ANIMALS		•••••		•••••	••••	• • • • • • • • • • • • • • • • • • • •	***************************************	ANALYSIS OF 71 INVERTEBRATE SPECIES; SIZE, SHAPE AND COMPOSITION
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NAMES	71	OBS			NOTED 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

PAGE 01
RECEIVED: AUGUST 08, 1973

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

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS	
POSITION	5 1RTH	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	PARIS PER THOUSAND	120	OBS	MONTHLY	SURFACE	•	
TEMPERATURE	WATER	NON-RL/ERSING THERMOMETER	DEG C	120	085	MONTHLY	SURFACE		
SPECIES DETERMINATION OF DEMERSAL FISH	WATER	KEY	NUMBER OF SPECIES PER SAMPLE, NUMBER OF INDIVIOUALS PER SPECIES	120	CBS	MONTHLY	SURFACE	10 FOOT OTTER TRAWL, 1 INCH MESH, BEACH SEINE	

	NAME	SPHERE	METHOD	UNITS	DATA AMO	TNU	FREQUENCY	HE IGHT/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	QBS	MONTHLY	BOTTOM	,
	CADMIUM IN BIO MATER.AL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PARTS PER MILLION	4	OBS			VARIETY OF - * SPECIES OF FISH, 4 SAMPLES PER YEAR
	ZINC IN BIO MAIERIAL	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

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ENVIRONMENTAL CONSULTATION - WETLANDS LYNN - AVEN AREA OF LOW . CHESAPEAKE BAY AND

ELIZABETH RIVER

DATA COLLECTED: JUNE 1972 TO PRESENT

PAGE 0

RECEIVED: AUGUST 08, 1973

PROJECTS:

SENERAL 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

NAME	SPHERE	METHOD	UNITS	DATA AMOU	TNL	FREQUENCY	HE IGHT/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	OSS			MARSH PLANTS
SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM .	KEA	NUMBER OF INDIVIDUALS PER SPECIES	200	OBS			
COUNT OF BENTHIC PLANTS	LAND	VISUAL	NUMBER PER ACRE	200	OBS			
COUNT OF BENTHIC	BOTTOM	VISUAL	NUMPER PER ACRE	300	085			

003:81 ENVIRONMENTAL CONSULTATION-WETLANDS LYN. AVEN AVEN LOWER CHESAPEAKE BAY AND (CONT.)
ELIZABETH RIVER

NA"E	SPHERE	METHOD	UNITS	DATA AMOUNT	τ	FREQUENCY	HE IGHT/DEP	TH	REMARKS
	• • • • • • • • • • • • • • • • • • • •	•••••		• • • • • • • • •		• • • • • • • • • • • •	• • • • • • • • •	• • • •	• • • • • • • • • • • • • • • • • • • •
NIMALS									
BIJMASS OF CENTHIC PLANTS	LAND	DRY WEIGHT	POUNDS PER ACRE	200 0	BS				
BIOMASS OF BENTHIC ANIMALS	BOTTOM	DRY WEIGHT	POUNDS PER ACRE	200 01	35				
SALINITY	WATER	HYDROMETER	PARTS PER THOUSAND	14 0	BS		SURFACE A	ND	LYNNHAVEN AREA
TEMPERATURE	WATER	NON-REVERSING THERMOMETER	DEG C	14 0	BS		SURFACE A BOTTOM	ND	LYNNHAVEN AREA
DISSOLVED OXYGEN GAS	WATER	TITRATION	MILLIGRAMS PER LITER	14 0	BS		SURFACE A BOTTOM	ND	LYNNHAVEN AREA
РН	WATER	SPECIFIC ION ELECTRODE	PH UNITS	14 0	BS		SURFACE A BOTTOM	OM	LYNNHAVEN AREA
COUNT OF MICROBIOTA	WATER	VISUAL	CULTURE GROWTH (MPN)	14 0	RS .		SURFACE A BOTTOM	ND	COLIFORM, LYNNHAVEN AREA
ORTHOPHOSPHATE	WATER	SPECTROPHOTOMETRY	MILLIGRAMS PER LITER	14 0	BS		SURFACE A BOTTOM	ND	LYNNHAVEN AREA
NITRATE	WATER	SPECTROPHOTOMETRY	MILLIGRAMS PER LITER	14 0	BS		SURFACE A BOTTOM	ND	LYNNHAVEN AREA
SECCHÍ DISC DEPTH	WATER	AVERAGE DEPTH	FEET	14 0	BS				LYNNHAVEN AREA
SIZE ANALYSIS	SEDIMENT	SIEVE	PERCENT COMPOSITION	7 0	BS		BOTTOM		LYNNHAVEN AREA

⊒ 20.287

INVENTURY OF CHECKINATED HYDROCARBONS IN THE CHESTER RIVER DATA COLLECTED: NOVEMBER 1971 TO JANUARY 1973

PAGE 01 RECEIVED: SEPTEMBER 17, 1973

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 ELEC RIC CORPORATION
DCEAN RESEARCH LABORATORY, BOX 1771
ANNAPOLIS MARYLAND USA 21404

GRID LOCATOR (LAT): 730796

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION TIME	EARTH EARTH	FIXED POINT STATION TIME	MAP LOCATION YMDL	25 150	STATIONS STATIONS	QUARTERLY 25 STATIONS ON A QUARTERL Y BASIS	* * * * * * * * * * * * * * * * * * *	
LINDANE	SEDIMENT	GAS CHROMATOGRAPH	PARTS PER BILLION	150	OBS	25 STATIONS ON A QUARTERL Y BASIS	BOTTOM	CHLORINATED HYDROCARBONS
ALDRIN	SEDIMENT	GAS CHROMATOGRAPH	PARTS PER BILLION	150	085	25 STATIONS ON A QUARTERL Y BASIS	BOTTOM	

INVENTORY OF CHEGRINATED HYDRICARBONS IN THE CHESTER RIVER (CONT.)

PAGE 0.

FARAMETER	COCHITETORITOR	SECTION.						
NAME	SPHERE	METHOD	UNITS	DATA AMOUN	iT	FREQUENCY	HE IGHT/DEPTH	REMARKS
DIELDRIN	SEDIMENT	GAS CHROMATOGRAPH	PARTS PER BILLION	150 0	BS	25 STATIONS ON A QUARTERL	BOTTOM	************
ENDRIN	SEDIMENT	GAS CHROMATOGRAPH	PARIS PER BILLION	150 0)BS	Y BASIS 25 STATIONS ON A QUARTERL Y BASIS	BOTTOM	
DDT	SEDIMENT	GAS CHROMATOGRAPH	PARTS PER BILLION	150 0	BS	25 STATIONS ON A QUARTERL Y BASIS	BOTTOM	
000	SEDIMENT	GAS CHROMATOGRAPH	PARTS PER BILLION	150 0	BS	25 STATIONS ON A QUARTERL Y BASIS	BOTTOM	
DDE	SEDIMENT	GAS CHROMATOGRAPH	PARTS PER BILLION	150 0)BS	25 STATIONS ON A QUARTERL Y BASIS	BOTTOM	
TOXAPHENE	SEDIMENT	GAS CHROMATOGRAPH	PARTS PER BILLION	150 0)BS	25 STATIONS ON A QUARTERL Y BASIS	BOTTOM	,
CHLORDANE	SEDIMENT	GAS CHROMATOGRAPH	PARTS PER BILLION	150 0)BS	25 STATIONS ON A QUARTERL Y BASIS	BOTTOM	>
POLYCHLORINATED BIPHENYLS	SEDIMENT	GAS CHROMATOGRAPH	PARTS PER BILLION	150 0	185	25 STATIONS ON A QUARTERL	BOTTOM	
LINDANE IN BIO Material	WATER .	GAS CHROMATOGRAPH	PARTS PER BILLION	100	OBS	Y BASIS		MYA ARENARIA, SOFT SHELL CLAM: CRASSOSTR EA VIRGINICA, DYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS,
ALDRIN IN BIO MATERIAL	WATED	GAS CHROMATOGRAPH	PARTS PER BILLION	100 0	OBS.			YELLOW PERCH MYA ARENARIA, SOFT SHELL CLAM: CRASSOSTR EA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS,
DIELDRIN IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH	PARTS PER BILLION	100 0	185			YELLOW PERCH MYA ARENARIA, SOFT SHELL CLAM: CRASSOSTR

INVENTORY OF CHLORING ED HYDRECARBONS IN THE CHESTER RIVER (CONT.)

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PAGE 03

	NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
	ENDRIN IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	OBS			EA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR EA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE
-	DOT IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	OB\$			AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR EA VIRGINICA, DYSTER;
た。 ・	DDD IN BIO MATERIAL	WATER .	GAS CHROMATOGRAPH Y	PARTS PER Rillion	100	o~s			CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR EA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH;
	DDE IN BIO Material	WATER .	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	OBS			MORONE PERCAFLAVIS, YELLOW PERCH MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR

INVENTORY OF CHLORINATED HYDROCARBONS IN THE CONT.)

PAGE 04

NAME	SPHERE	METHOD	UNITS	DATA AMO	JUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
TOXAPHENE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARTS PER BILLION	100	08\$			OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR EA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE
CHLORDANE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH	PARTS PER BILLION	100	OBS			PERCAFLAVIS, YELLOW PERCH MYA ARENARIA, SOFT SHELL
POLYCHLORINATED BIPHENYLS IN BIO MATERIAL	\\ATER	GAS CHROMATOGRAPH	PARTS PER BILLION	100	OBS			CLAM; CRASSOSTR EA VIRGINICA, OYSTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA, WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH MYA ARENARIA, SOFT SHELL CLAM; CRASSOSTR EA VIRGINICA, OYJTER; CALLINECTES SAPIDUS, BLUE CRAB; MORONE AMERICANA,
								WHITE PERCH; MORONE PERCAFLAVIS, YELLOW PERCH

00170C

POPULATION DINAMICS OF PRIVATE AND PUBLIC CYSTER BEDS IN VIRGINIA, 1947 TO 1967 PAGE 01

DATA COLLECTED: UNNUARY 1947 TO OSCEMBER 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 CYSTERS IN THE LOWER CHESAPEAKE BAY AND NUMEROUS TRIBUTARIES HAVE BEEN MADE SINCE 1947. DATA ALSO INCLUDED COUNTS OF CYSTER 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 CYSTER 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

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



PAGE 65

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

002007

PESTICH E DATA
DATA COLLECTED: JANUARY 128 TO DECEMBE 9/2

PAGE 01 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 DYSTERS 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

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	10	STATIONS			••••••
TIME	EARTH .	STATION TIME	YMD	680	OBS	MONTHLY UNTIL 1970, QUARTERLY FRC# 1971= 1972		1 OBS PER STATION
COT IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH	PPM	680	OBS	MONTHLY UNTIL 1970, QUARTERLY FROM 1971- 1972		WET WEIGHT IN OYSTER FLESH
DOD IN BIO	WATER	GAS CHROMATOGRAPH	PPM	680	OBS	MONTHLY UNTIL		WET WEIGHT IN

PAGE 02

NAME	SPHEFE	METHOD	UNITS	DATA AM		FREQUENCY	HE IGHT/DEPTH	REMARKS
MATERIAL		Y				1970, QUARTERLY F:JM 1971- 1972		OYSTER FLESH
DDE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH	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	MONT'-LY UNTIL 1970, QUARTERLY FROM 1971- 1972		WET WEIGHT IN OYSTER FLESH

MANAGER DATA COLLECTED: JUNE 1974 IC PRESENT

PAGE 0: 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 DYSTERS ARE OBTAINED FROM FORTY STATIONS IN THE LOWER CHESAPTAKE BAY AND ITS TRIBUTARIES AND ANALYSED FOR CU. CD, ZN. HG AT SIX MONTH INTERVALS. THE PROGRAM ATTEMPTS TO MONITOF 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

INVENTERY:

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

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION TIME COPPER IN BIO MATERIAL	EA-TH EARTH WATF?	FIXED POINT STATION TIME ATOMIC ABSORPTION SPECTROMETRY	MAP LOCATION YMD PPM	40 160 160	STATIONS OBS OBS	TWICE A YEAR TWICE A YEAR	***************************************	3 OBS PER STATION FROM A MIXTURE OF 10 OYSTERS; WET WEIGHT IN
CADMIUM IN BIO MATERIAL	MATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	160	OBS	TWICE A YEAR		OYSTER TISSUE 3 OBS PER STATION FROM A MIXTURE OF 10 OYSTERS; WET WEIGHT IN

HEAVY METALS MUNITORING PROCHAM (CCN. . .

PACE O.

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMO	iun,	FREQUENCY	HE IGHT/DEPTH	REMARKS
	• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • • • •	• • • • • • • • • • • •	••••••	• • • • • • • • • • • • • • • •
TING IN BIO	WATER	ATOMIC ABSORPTION SPECTROMETRY	РРМ	160	OBS	TWICE A YEAR		OYSTER TISSUE 3 OBS PER STATION FROM A MIXTURE OF 10 OYSTERS; WET
MERCURY IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	36	OBS	TWICE A YEAR		WEIGHT IN OYSTER TISSUE SAMPLES FROM ONLY 9 STATIONS

y. .

3- ·

BACTERIOLOGICAL AND HIDROGRAPHIC SEAWITER DATA DATA COLLECTED: JANUARY 1928 TO PRESENT

PAGE 01 RECEIVED: JUNE 18, 1974

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 ART 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 BLC:., 109 GOVERNOR STREET RICHMOND VIRGINIA USA 23219

GRID LOCATOR (LAT):

730776 730766 730775

NAME	STHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION	4000	STATIONS	•••••	•••••	THE SHORELINE OF VIRGINIA HAS BEEN DIVIUED INTO 107 AREAS AND EACH OF THESE AREAS CONTAIN A NUMBER OF
TIME	EARTH	STATION TIME	YMD	75000	085			STATIONS MONTHLY SINCE 1972; QUARTERLY

BACTERIOLOGICAL AND HYDFOGRAPHIC SEAWATER DATA (CONT.)



PAGE 02

2	ARAMETER	IDENTIFICATION	SECTION:						
NAME		SPHERE	METHOD	UNITS	DATA AMOU	NT	FREQUENCY	HE IGHT/DEPTH	REMARKS
. • • • • • •		• • • • • • • • • • • • • • • • • • • •	**************	*****	• • • • • • • •	• • • • • • • • •	•••••	••••••	• • • • • • • • • • • • • • • • • • • •
COUNT OF MICROBI		WATER	VISUAL	MPN	75000	OBS			SINCE 1969; VARIOUS INTERVALS FROM MONTHS TO YEARS DEPENDING ON AREA AND STATION BEFORE 1969 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
TEMPERAT	URE	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
SALINI · Y	•	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
WEATHER	•	AIR	VISUAL .	TYPE	10000	OBS	1 TO 5 IN EACH AREA		1969 ALSO INCLUDED ARE WIND SPEED AND DIRECTION ESTIMATES AND TIDAL DIRECTION AND STAGE ESTIMATES

002010

SHORELINE SUPVEY DATA
DATA COLLECTED: JANUARY 1940 TO PRESENT

PAGE 01 RECEIVED: JUNE 18, 1974

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

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

PAGE 02

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

PESTICIDE MONIFORING MAGGRAM DATA COLLECTED: SEPTEMBER 1974 O PRESENT

PAGE G1 RECEIVED: JUNE 18, 1974

PROJECTS:

GENERAL GEOGRAPHIC AREA:

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

ABSTRACT:

DYSTERS OBTAINED AT SIX MONTH INTERVALS FROM STATIONS LOCATED IN TIDAL "RIBUTARIES 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

GRID LOCATOR (LAT):

730776 730766 730775

NAME		SPHERE	METHOD L	UNITS	DATA AMOUNT		FREQUENCY	HEIGHT/DEPTH	REMARKS
	POSITION	EAPTH	FIXED POINT	MAP LOCATION	18	STATIONS	••••••	••••••	• • • • • • • • • • • • • • • • • • • •
	TIME	EARTH	STATION TIME	YMD	36	OBS	TWO SAMPLINGS PER YEAR		
	DOT 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

PESTICIDE MONITORING PROGRAM (CONT.)

PAGE 02

	NAME	SPHERE	METHOD	UNITS	DATA AMOL	JNT	FREQUENCY	HE IGHT/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
	DDE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH	PPM	36	OBS	TWO SAMPLINGS PER YEAR		EACH STATION; 4 STATIONS EACH SAMPLED BY ONE ANALYSIS OF A MIXTURE OF 10 OYSTERS FROM EACH STATION 314 STATIONS EACH SAMPLED BY ONE ANALYSIS OF A MIXTURE OF 30 OYSTERS FROM EACH STATION; 4 STATIONS
	DIELDRIN IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH	PPM	36	OBS	TWO SAMPLINGS PER YEAR		EACH SAMPLED BY ONE 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
٠	POLYCHLORINATED BIPHENYLS IN BIO MATERIAL	WATER .	GAS CHROMATOGRAPH Y	PPM	36	OBS	TWO SAMPLINGS PER YEAR		EACH SAMPLED BY ONE 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;



HEAVY METALS STUDIES FOR THE E.I. DUPONT DENEMOURS AND CO. JAN 1971 (CONT.)

	NAME	SPHERE	METHOD	UNITS	DATA AMO	DUNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
	MERCURY IN BIO MA:ERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	100	OBS			IN GUT AND FLESH TISSUE CONCENTRATIONS DETERMINED IN FLESH OF BLUE CRABS, SHRIMP,
	COPPER IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SHECTROMETRY	UG PER G	40	OBS			OYSTERS, MUD CRABS, MUSSELS TAKEN AT EACH STATION CONCENTRATIONS IN FLESH OF VARIOUS SPECIES OF FINFISH TAKEN
	COPPER IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	20	OBS			AT EACH STATION CONCENTRATIONS , IN FLESH OF SHRIMP,
	CHROMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40	OBS			OYSTERS, MUSSELS CONCENTRATIONS IN FLESH OF VARIOUS
i.					•				SPECIES OF FINFISH TAKEN AT EACH
	CHROMIUM IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	20	OBS			STATION CONCENTRATIONS IN FLESH OF SHRIMP, OYSTERS,
	LEAD IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40	OBS			MUSSELS CONCENTRATIONS IN FLESH OF VARIOUS SPECIES OF FINFISH TAKEN AT EACH
	LEAD IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	20	08\$			STATION CONCENTRATIONS IN FLESH OF SHRIMP, OYSTERS,
٠	ZINC IN BIO MATERIAL	WATER .	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40	OBS			MUSSELS CONCENTRATIONS IN FLESH OF VARIOUS SPECIES OF FINFISH TAKEN AT EACH STATION

PAGE 03

PARAMETER IDENTIFICATION SECTION:

NAME	SPHEZE	METHOD	UNITS	DATA AMOL	JNT	FREQUENCY	HE IGHT/DEPTH	REMARKS	
	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • •	• • • • • • • • • •	•••••	******	• • • • • • • • • • • • • • • • • • • •	
ZINC IN BIO Material	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40	OBS			CONCENTRATIONS IN FLESH OF SHRIMP, OYSTERS,	
ALUMINUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40	OBS			MUSSEL\$ CONCENTRATIONS IN FLESH OF VARIOUS SPECIES OF FINFISH TAKEN AT EACH	
ALUMINUM IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	UG PER G	40	OBS			STATION CONCENTRATIONS IN FLESH OF SHRIMP, OYSTERS. MUSSELS	

C U

PAGE 01 RECEIVED: AUGUST 09, 1574

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 DYSTER BANKS WERE INVESTIGATED IN ORDER TO LOCATE AREAS SUITABLE FOR THE LOCATION OF CULTURED DYSTER 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:

CON. ACT:

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

GRID LOCATOR (LAT):

730795 730794 730785 730784

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION TIME	EARTH EARTH	FIXED POINT STATION TIME	MAP YMD	119 119	STATIONS OBS	••••••		
SIZE ANALYSIS	SEDIMENT	SIEVE	PERCENT	119	OBS			SAND, SILT, DR CLAY
IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	P.P.M.	119	088			CREATER THAN 63U FRACTION OF SEDIMENT ONLY
MAGNESIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	119	OBS			GREATER THAN 63U FRACTION OF SEDIMENT ONLY



PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	ME THOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
	• • • • • • • • • • • • • • • • • • • •	••••••		• • • • • • •	• • • • • • • • • •	• • • • • • • • • • •	•••••	•••••
COPPER	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	119	088			GREATER THAN 63U FRACTION OF SEDIMENT ONLY
CHROMIUM .	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	119	08\$			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

3

GOLD AND MERCURY IN DYSTERS BY NEUTRON ACTIVATION DATA COLLECTED: APRIL 1970 TO APRIL 1970

PAGE 01
RECEIVED: SEPTEMBER 04, 1974

PROJECTS:

GENERAL GEOGRAPHIC AREA:

NORTH ATLANTIC, U.S., CHESAPEAKE BAY, PATAPSCO RIVER, COASTAL

ABSTRACT:

ANALYSIS OF DYSTER MEATS FROM PATAPSCO RIVER, MARYLAND FOR GOLD AND MERCURY BY NEUTPON ACTIVATION ANALYSIS. SINGLE STATION SOURCE OF DYSTERS, PROGRAM INTENT WAS TO PROVIDE BASELINE DATA AND EVALUATE ANALYTIC TECHNIQUE. DATA FILE INCLUDES ENERGY SPECTRA FOR EACH SAMPLE.

(MS THESIS, ?. 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

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UNIVERSITY OF MARTLAND

COLLEGE PARK MARYLAND USA 20742

GRID LOCATOR (LAT):

730796

PARAMETER IDENTIFICATION SECTION:

NAME	COHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION TIME	EARTH EARTH	FIXED POINT STATION TIME	MAP	1	STATIONS 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

053

DEFERMINATION OF CADMIUM IN CYSTERS DATA COLLECTED: JUNE 1968 TO OCTOBER 1970

PAGE RECEIVED: SEPTEMBER 04, 19:

PROJECTS:

GENERAL GEOGRAPHIC AREA:

NORTH ATLANTIC, U.S., CHESAPEAKE BAY, COASTAL

ABSTRACT:

SAMPLES OF CYSTERS 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

POSITION EARTH FIXED POINT MAP 4 STATIONS TIME EARTH STATION TIME YMD 4 STATIONS	*********
CADMIUM IN BIG BOT ATOMIC ABSORPTION PPM WET WEIGHT 16 OBS	DYSTERS ANALYZED
WEIGHT OF BOTTOM WET WEIGHT GM 16 OBS BENTHIC ANIMALS	CYSTERS, MEAT ONLY

BENTHIC SURVEY FOR SOFT-SHELL CLAM POPULATIONS NEAR CALVER! CLIFFS MARYLAND DATA COLLECTED: AUGUST 1973 TO AUGUST 1973

PAGE 01 RECEIVED: SEPTEMBER 04. 197

TIMES AT EACH

PROJECTS:

00:2442

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

ABSTRACT:

OFFSHORES AREAS IN THE CHESAPEAKE BAY NEAR THE SITE OF THE PROPOSED CALMERT CLIFFS NUCLEAR GENERATING STATION WERE SURVEYED BY HYDRAULIC DREDGE TO LOCATE CLAM BEDS WHICH MIGHT POSSIBLY BE #FFECTED 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 COMPAN)

DATA AVAILABILITY: .

REPORTS AVAILABLE ONLY FROM CONTRACT AGENCY

PLATFORM TYPES:

FIXED STATION

ARCHIVE MEDIA:

REPORTS

ONE 10 PAGE HEPORT

FUNDING:

THE BALTIMORE GAS AND ELECTRIC COMPANY

INVENTORY:

PUL_ICATIONS:

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

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NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION TIME COUNT OF BENTHIC ANIMALS	EARIH EARTH BOTTOM	FIXED POINT STATION TIME VISUAL	MAP YMD NUMBER OF INDIVIDUALS	18 18 18	STATIONS OBS OBS	ONCE ONCE	BOTTOM	SOFT SHELL CLAMS ONLY; OBTAINED WITH 32 FT COMMERCIA L DREDGE WITH 3 FT HEAD; 5 MIN DREDGE. 4





PAGE 02

BENTHIC SURVEY FOR SOFT-SHELL CLAM POPULATIONS NEAR CALVERT CLIFFS MARYLAND (CONT.)

PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMO		FREQUENCY	HEIGHT/DEPTH	REMARKS .
MORPHOMETRIC MEASURE OF BENTHIC ANIMALS	BO1 TOM	DIRECT	SIZE RANGE	18	OBS	ONCE		STATION GREATER THAN 57 MM, LESS THAN 57 MM; SOFT SHELL CLAMS
DISSOLVED OXYGEN GAS	WATER	TITRATION	PPM	18	OBS	ONCE	BOTTOM	ONLY
SALINITY COUNT OF MICROBIOTA	WATER WATER	TITRATION VISUAL	PPT VARIOUS	18 18	OBS	ONCE ONCE	BOTTOM BOTTOM	FECAL COLIFORM, NUMBER PER 100 G; TOTAL COLIFORM, NUMBER PER G

3.

100

: (): 002446

CHESAPEAKE BAY, CALVERT CLIFFS SURVEY REPORTS FOR THE BALTIMORE GAS AND

ELECTRIC COMPANY

DATA COLLECTED: JUNE 1968 TO PRESENT

PAGE UT

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 BIJLOGICAL, 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. GOULZEN 215 567 3700
THE ACADEMY OF NATURAL SCIENCES
NINETEENTH AND THE PARKWAY
PHILADFLPHIA PENNSYLVANIA USA 19103

GRID LOCATOR (LAT): 730786

NAME	SPHERE	METHOD	UNITS '	DATA AMO	UNT	FREQUENCY	HEIC T/DEPTH	REMARKS
POSITION TIME	EARTH EARTH	FIXED POINT SAMPLING TIME	MAP YMÜHW	4 40	STATIONS OBS	TWICE PER	***********	· · · · · · · · · · · · · · · · · · ·
SPECIES DEFERMINATION OF BENTHIC	BOTTOM	KEY	NUMBER OF SPECIES PER CLASS	40	OBS	TWICE PER YEAR	SHORE ZONE	ALGAE OBTAINED BY VARIED TECHNIQUES
PLANTS SPECIES DETERMINATION	WATER	KEY	SPECIES, CLASS, TYPE	40	OBS	TWICE PER YEAR	SHORE ZONE	PROTOZOA OBTAINED BY



CHESAPEAKE BAY, CALVERT CLIFFS SURVEY REPORTS FOR THE BALTIMORE GAS AND (CONT.) ELECTRIC COMPANY



PAGE 03

	NAME	SPHERE	METHOD	UNITS	DATA AMOU	TNI	FREQUENCY	HE IGHT/DEPTH	REMARKS
	OF MICROBIOTA				••••			************	COLLECTING VARIOUS SUBSTRATES THAT WOULD PROVIDE MICROHABITATS; PLANKTON TOWS
	SPECIES DETERMINATION OF BENTHIC ANIMALS	BOTTOM	KEY	NUMBER OF SPECIES PER STATION	40	OBS	TWICE PER YEAR	SHORE ZONE	ALSO USED VARIOUS COLLECTING MECHANISMS USED TO SAMPLE ALL BOTTOM
	SPECIES DETERMINATION OF DEMERSAL FISH	WATER	KEY	NUMBER OF SPECIES PER STATION	40	OBS	TWICE PER YEAR	SHORE ZONE	TYPES 50 PT BAG SEINE WITH ONE-HALF INCH MESH 3 USED; DENDROGRA MS OF SPECIES ASSOCIATIONS PRESENTED
) T = 2	TOTAL ALKALINITY	WATER	TITRATION	PPM	•	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 DNE 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

CHESAPEAKE BAY, CALVERT CLIFFS SURVEY REPORTS FOR THE BALTIMORE GAS AND (CONT.) ELECTRIC COMPANY

PAGE 50

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

CHESAPEAKE BAY, CALVERT CLIFFS SURVE! REPORTS FOR THE BALTIMORE GAS AND (CONT.) ELECTRIC COMPANY

PAGE

NAME	SPHERE	METHOD	UNITS	DATA AMO	JNT	FREQUE	NCY	HEIGHT/DEPTH	REMARKS
BICARBONATE ALKALINITY	WATER	CALCULATED	PPM	400	OBS	DAILY	FOR ONE	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 A ONE WEEK PERIOD TWICE A
CARBONATE ALKALINITY	WATER	CALCULATED	PPM	400	υBS	DAILY	FOR ONE	SURFACE	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
РН	% ATER	COLORIMETRY	PH UNITS	400	OBS	MEEK	FOR ONE	SURFACE	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
ELECTRICAL CONDUCTIVITY	WATER	IN SITU CONDUCTIVITY CF1.L	MICROMHOS	400	OBS	DAILY WEEK	FOR ONE	SURFACE	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





CHESAPEARE BAY CALVERT TIFTS AURY REPORTS TO BE BALTIMORE GAS AND (CONT.)

ELECTRIC COMPANY

400

NAME	SPHERE	METHOD	LIMITE	D. #4. 4400				
************	> * * * * * * * * * * * * * * * * * * *	***************************************	UNITS	DATA AMOL	JNI	FREQUENCY	HEIGHT/DEPTH	REMARKS
SODIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	РРМ .	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 A ONE WEEK
POTASSIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	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
IRON	WA:ER	ATOMIC ABSORPTION SPECTROMETRY	PPM	400	OBS	DAILY FOR ONE WEEK	SURFACE	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
MANGANESE	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPM	400	OBS	DAILY FOR ONE WEE ^M	SURFACE	ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER



CHESAPEAKE BAY, CALVERT CLIFFS SURVEY REPORTS FOR THE BALTIMORE GAS AND (CONT.) ELECTRIC COMPANY



PAGE 1

	1 4444.40	1021112, 101111011	220,15,11						
	NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	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		DAILY FOR ONI WEEK	E 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 ON	E SURFACE	TOTAL BACTERIA, COLIFORM BACTERIA
	PHOSPHATE	WATER	COLORIMETRY	PPM	400	OBS	DAILY FOR ON WEEK	E 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 ON WEEK		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 ON	E SURFACE	SAMPLES OBTAINED AT 5

CHESAPLAKE LAY, CALMERT CLIFFS SURVER OFFORMS FOR THE BALTIMORE GAS AND (CONT.) ELECTRIC COMPANY

6)

PALL

	PARAMETER	IDENTIFICATION	SECTION:							
	NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUEN	ICY	HE IGHT/DEPTH	REMARKS
										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
	AMMONI A	WATER	COLORIMETRY	PPM	400	OBS	DAILY F WEEK	OR ONE	SURFACE .	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 STO ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED
•	TOTAL SOLIDS	WATER	ORY WEIGHT	PPM	400	OBS	DAILY F WEEK	OR ONE	SURFACE	SAMPLES OBTAINED AT 5 HIGH AND 5 LOW TIDES AT 4 STATIONS OVER A ONE WEEK PERIOD TWICE A

THE PAPER OF CALVERT CLIFFS DURVET REPORTS FOR THE BALTIMORE GAS AND (CONT.) ELECTRIC COMPANY

PAGE 08

PARAMETER IDENTIFICATION SECTION:

NAME SPHERE METHOD UNITS DATA AMOUNT FREQUENCY HEIGHT/DEPTH REMARKS

ERROR OF MEAN FOR HIGH AND LOW TIDE SAMPLINGS PRESENTED

064

C

D HEAVS MOTALS TATE MARINE F

PAGE 0 RECEIVED: FEBRUARY 07, 1975

ROLE OF SEWAGE EFFLUENT AND HEAVY METALS INTO MARINE ECOSISTEMS DATA COLLECTED: UNIVARY 1970 TO PRESENT

PROJECTS:

00317£

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.)

CATA AVAILABILITY:

PLATFORM TYPES:

SHIP

ARCHIVE MEDIA:

REPORTS; DATA SHEETS

200 PAGES

FUNDING:

UNIVERSITY OF MORTH CAROLINA; NORTH CAROLINA OFFICE OF WATER RESOURCES RESEARCH PROGRAM

INVENTORY:

PUBLICATIONS:

CONTACT:

RICHARD BARBER 919 728 2111
DUKE UNIVERSITY MARINE LABORATORY
BEAUFORT NORTH CAROLINA USA 28516

GRID LOCATOR (LAT):

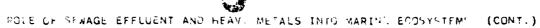
730748 730747 730746 730756 730755 730765

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	DM	35	STATIONS			LATITUDE &
TIME	EARTH	STATION TIME	YMD	35	STATIONS	BIANNUAL		
MERCURY	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35	S-ATIONS	BIANNUAL		OUTFALL PIPE
CADMIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35	STATIONS	BIANNUAL		OUTFALL PIPE
SELENIUM	WATER .	ATOMIC ABSORPTION SPECTROMETRY	PP8	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



NAME	SPHETE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
		• • • • • • • • • • • • • • • • • • • •		• • • • • • • •	• • • • • • • • •	• • • • • • • • • • • • •	***********	• • • • • • • • • • • • • •
IRON	WATER	ATOMIC ABSORPTION SPECTROMETRY	PP8	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	PP8	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	ATOWIC ABSORPTION SPECTROMETRY	PPB	35	STATIONS			OUTFALL PIPE
COPPER	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY		35	STATIONS	BIANNUAL	•	OUTFALL PIPE
ZINC	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY		35		BIANNUAL		OUTFALL PIPE
IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY		35		BIANNUAL .		OUTFALL PIPE
CHROMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY		35	STATIONS			OUTFALL PIPE
NICKEL	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY		35	STATIONS			OUTFALL PIPE
MERCURY IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY		3 5	STATIONS	BIANNUAL		OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
CADMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PP8	35	STATIONS	BIANNUAL		OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
SELENI A IN BIO MATERIAL	₩AT ER	ATOMIC ABSORPTION SPECTROMETRY	PP8	35	STATIONS	BI A NVU A L		OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
LEAD IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PP8	35	STATIONS	BIANNUAL		OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
COPPER IN BIO	WATER	ATOMIC ABSORPTION	PPB	35	STATIONS	BIANNUAL		CYSTERS,





PAGE 9

NAME	SPHERE	METHOD	UNITS	DATA AMOL	JNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
₩¶TERIAL		SPECTROMETRY						LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET,
ZINC IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35	STATIONS	BIANNUAL		PENEAUS 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, PEMEAUS
CHROMIUM IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PPB	35	STATIONS	BIANNUAL		OYSIERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
NICKEL IN BIO MATERIAL	WATER	ATOMIC ABSORPTION SPECTROMETRY	PP8	35	STATIONS	BIANNUAL		OYSTERS, LITTERINA, NASSERIA, SPARTINA, ULVA, UCA, MULLET, PENEAUS
PRECIF: TATION AMOUNT	AIR	RAIN GAGE	INCHES	35	STATIONS	BIANNUAL		
WATER TRANSPORT PARTICULATE MATTER	WATER Water	FLOW METER Gravimetry		35 35	STATIONS STATIONS	BIANNUAL BIANNUAL		

PAGE TRECEIVED: OCTOBER 11, 1974

PROJECTS:

GENERA' 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 DYSTERS IN DELAWARE BAY. THESE RESULTS PROVIDE BASELINE INFORMATION TO BE USED IN THE DYSTER EARLY-WARNING POLLUTION MONITORING SYSTEM BLING 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.

CONTACT:

DR. ROBERT B. BIGGS 302 738 2842

DEPARTMENT OF GEOLOGY. UNIVERSITY OF DELAWARE

NEWARK DELAWARE USA 19711

GRID LOCATOR (LAT):

730795

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
POSITION	EARTH EARTH	FIXED POINT STATION TIME	DMT	118	STATIONS STATIONS	•••••	•••••••	• • • • • • • • • • • • • • • • • • • •
IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118	STATIONS		,	HYDROCHLORIC ACID EXTRACTION FROM SILT AND CLAY FRACTION
MAGNES I UM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118	STATIONS			HYDROCHLORIC ACID EXTRACTION FROM SILT AND

20.29

TRACE MOTAL ENVIRONMENTS NEAR SHOUL BANKS IN DELA ARE BAY (CONT.)

PAGE 0:

		320,13,11						
NAME	=		UNITS	DATA AMO		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
LEAD	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118	STATIONS			FROM SILT AND CLAY FRACTION HYDROCHLORIC ACID EXTRACTION
CADMIUM	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	PPM	118	STATIONS			FROM SILT AND 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

ACTORS AFFECTING ACCUMULATION, TISSUE DISTRIBUTION AND ELIMINATION OF MERCURY IN THE AMERICAN DYSTER, CPA: SOSTREA VIRGINIA (GMELIN)

DATA COLLECTED: JUNE 1971 TO OCTOBER 1973

RECEIVED: AUGUST 01, 1975

PAGE 01

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 DYSTERS, ADULT CRASSOTREA VIRGINICA (GMELLA) WERE HELD IN SEA WATER CONTAINING EITHER 10PPB OR 10PPB MERCURY FOR 45 DAYS. MERCURY CONCENTRATIONS IN TISSUES WERE DETERMINED BY ANALYSIS OF INDIVIDUALLY HOMOGENIZED DYSTER MEATS USING WET DIGESTION AND FLAMELESS ABSORPTION SPECTROPHOTOMETRY.

DATA AVAILABILITY:

LIBRARY LOAN

PLATFORM TYPES: FIXED STATION

ARCHIVE MEDIA:

REPORTS

OHE 147 PAGE THESIS

FUNDING:

INVENTORY:

PUBLICATIONS:

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

CONTACT:

LIBRARIAN 302 645 667
UNIVERSITY OF DELAWARE, MARINE STATION LIBRARY
LEWES DELAWARE USA 19958

GRID LOCATOR (LAT): 7307855270

PARAMETER ICENTIFICATION SECTION:

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

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, '

TO SAS AFRETTING ACCUMULATION TISSUE DISTRIBUTION, AND ELIMINATION OF MERCURY (CONT.) IN THE AMERICAN DYSTER, CRASSUSTREA VIRGINIA (CHELIN)

PACE C

NAME		UNITS	DATA AMOUNT	•	REMARKS
					THE UPTAKE, DISTRIBUTION IN TISSUES AND DEPURATION OF MERCURY IN CRASSOSTREA VIRGINICA WAS CALCULATED
				•	,

RECEIVED: SEPTEMBER 22. 1975

PAGE UI

WATERS
DATA COLLECTED: OCTOBER 1966 TO AUGUST 1969

PROJECTS:

GENERAL GEOGRAPHIC AREA:

NORTH ATLANTIC, COASTAL, U.S., DELAWARE, INDIAN RIVER AND REHUBOTH 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 CONDUCTID AT BUREAU OF COMMERCIAL FISHERIES BIOLOGICAL LABORATORY-GULF BREEZE, FLORIDA)

DATA AVAILABILI"Y:

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 AMOU	INT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATION		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		DEWI 3303

MONTH

072





- THREE YE'R SURVEY OF THE PESTICIDE CONTENT OF SHILLFISH TH DELRWARE'S TIDAL (CONT.) WATERS

PAGE 6

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
		• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	************	• • • • • • • • • • • • • • • • • • • •
DOD IN BIO MATERIAL	WA) ER	GAS CHROMATOGRAPH	PARTS PER MILLION PER SHELLFISH SPECIES TISSUE SAVPLE PER OBS PER STATION	282 085	1 OBS PER STATION PER MONTH		
DDE IN BIO MATERIAL	WATER	GAS CHROMATOGRAPH Y	PARIS PER MILLION PER SHELLFISH SPECIES TISSUE SAMPLE PER OBS PER STATION	282 OBS	1 OBS PER STATION PER MONTH		
DDT IN BIO MATER: AL	WATER	GAS CHROMATOGRAPH Y	PARIS 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	PARTS PER MILLION PER SHELLFISH SPECIES TISSUE SAMPLE PER OBS PER STATION	282 OBS	1 OBS PER STATION PER MONTH		·

NEKTON AND BENTHIC SURVEY OF HACKEITS POLET, ICLLY POINT AND MATAPEAKE-MARYLAND DATA COLLECTED: JUNE 1972 TO PRESENT

RECEIVED: JUNE 21, 1976

PROJECTS:

CENERAL 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 AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
			•••••	• • • • • • • •	<i></i>		•••••	• • • • • • • • • • • • • • •
POSITI A	EARTH	FIXED POINT	LONGITUDE AND	3	STATIONS			
TIME	EARTH	SAMPLING TIME	YMDHM	3	STATIONS	MONTHLY		
TEMPERATURE	AIR	MERCURY THERMOMETER	DEG G	3	STATIONS	MONTHLY		
TEMPERATURE	WATER	THERMISTOR	DEG G	3	STATIONS	MONTHLY		
SALINITY	WATER	CONDUCTIVITY	PPT	3	STATIONS	MONTHLY		
WEATHER	AIR	VISUAL		3	STATIONS	MONTHLY		
SECCHI DISC DEPTH	WATER	AVERAGE DEPTH		3	STATIONS	MOTTHLY		•
SPECIES DETERMINATION	BOTTOM	KEY		3	STATIONS	MONTHLY		

OF BENTHIC ANIMALS

TON AND BENTHIC SURVEY OF HACKETTS FOINT, IGULT PO Nº AND MATAPEAKE-MARYLAND (CONT.)

PAGE C

NAME	SPHERE	METHOD	·	DATA AMOU		· -		REMARKS	
• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •		• • • • • • • •	• • • • • • • • •		* * * * * * * * * * * * * * * * * * * *		•
COUNT OF BENTHIC	MO1106	VISUAL		3	STATIONS	MONTHLY			
ANIMALS SPECIES DETERMINATION	WATER	KEY		3	STATIONS	MONTHLY		,	
OF MICROBIOTA COUNT OF	WATER	VISUAL		3	STATIONS	MONTHLY			

BINTHIC MACROINVERTEBRATE COMMUNITIE. AS INDICALUAS OF POLLUTION IN THE ELIZABETH RIVER, FAMPTON, VIAGINIA

DATA COLLECTED: JANUARY 1965 TO AUGUST 1969

RECEIVED: AUGUST 26, 1976

PAGE 11

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:

H JPTON 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:

MICHAEL D. RICHARDSON 503 754 4319
OREGON STATE UNIVERSITY
SCHOOL OF OCEANOGRAPHY
CORVALIS OREGON USA 97331

GRID LOCATOR (LAT):

730776

PARAMETER ID: NTIFICATION SECTION:

	NAME	SPHF7E	METHOD	UNITS	DATA AMO	TAUC	FREQUENCY	HE IGHT/DEPTH	REMARKS
	TIME	EARTH	SAMPLING TIME		8	MOS	*****	*******	
	POSITION CATCH/EFFORT OF	EARTH BOTTOM	FIXED POINT GRAB		8	MQS MOS			SEVEN-HUNDROTHS
•	BENTHIC ANIMALS DIVERSITY INDEX	BOTTOM	BRILLOUIN		o	Mas			METER SQUARED Van veen grab
	OF BENTHIC	BOTTOM	DRIECOIN		•	MUS			
	ANIMALS DIVERSITY INDEX	BOTTOM	MARGALEF		8	MOS			

076

BEWHIC MOUROINVESTABRATE COMMUNITIES AS INDICATORS OF POLLUTION IN THE (CONT.) ELIZABETH RIVER, HAMPTON, VIRGINIA

PAGE L.

PARAMETER IDESTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
• • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • •	• • • • • • • • • •	• • • • • • • • • • • •	************	• • • • • • • • • • • • • • • • • • • •
OF BENTHIC								
ANIMALS						·		
DIVERSITY INDEX	BOTTOM	SHANNON-WEINER		8	: * 0\$			•
OF BENTHIC								
ANIMALS								
SAMPLE OF	BOTTOM	ALCOHOL		8	MOS			
BENTHIC								
ANIMALS				_				
SAMPLE OF	BOTTOM	FORMALIN		8	MOS			
BENTHIC								
ANIMALS				_				
SPECIES	BOTTOM	KEY		8	MOS			
DETERMINATION								
OF BE-THIC								•
ANIMALS								•
TAXONOMIC LIST	BOTTOM	KEY		8	MOS			
OF BENTHIC								,
ANIMALS								3

077

J07450

LIVE DYSTER SED AND CLUTCH SURVEY OF THE DELAWARE BAY AND TRIBUTARIES
DATA COLLECTED: OCTOBER 1971 TO PRESENT

PAGE C RECEIVED: JUNE 21, 1976

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 DYSTER BEDS OF THE DELAWARE BAY AND TRIBUTARIES ARE PRESENTED IN REPORT FORM. MEASURED PARAMETERS INCLUDE DISTRIBUTIONS OF SPAT AND DYSTERS, THE STATUS OF THE MSX INFECTION AND VOLUMES OF MARKET DYSTERS 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 DYSTER PRODUCTION.

(MSX-MINCHINIA NELSONI (DYSTER 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

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

LIVE GYSTER BED AND CLUTCH SURVEY OF THE PELAWARE BAY AND TRIBUTARIES (CONT.)

PAGE UL

PARAMETER IDENTIFICATION SECTION:

NAME SPHERE METHOD UNITS DATA AMOUNT FREQUENCY HEIGHT/DEPTH REMARKS

ACTIVITIES

MARKET OYSTERS LANDED PER YEAR

PAGE 01 RECEIVED: JULY 26, 1976

PROJECTS:

GENERA'. GEOGRAPHIC AREA:

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

ABSTRACT:

BIDLOGICAL, 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. PAR/METERS INCLUDE SPECIES COUNT OF PLANTS, ANIMALS, AND FISH, NUTRIENTS, TEMPERATURE, SALINITY, METALS, TURBIDITY, AND DISSCIEVED 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:

PTPORTS 85 PAGES

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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

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION	EARTH	FIXED POINT	MAP LOCATIONS	13	STAT.JNS	1 SURVEY	***********	
TIME	EARTH	STATION TIME	Y MO	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 .		

LEAD

SEDIMEN

PAGE 02

PARAMETER	IO_NTIFICATION	SECTION:						
NAME	SPHETE	METHOD	UNITS	DATA AM	OUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
	• • • • • • • • • • • • • • • • • • • •	•••••	• • • • • • • • • • • • • • • • • • • •	• • • • • •	• • • • • • • • •			
DETERMINATION OF AMPHIBIANS SPECIES	LAND	KEY	QUALITATIVE	6	STATIONS	1 CHRVEY	-	
DETERMINATION OF MANNALS		·· <u>-</u> ·	40001101110		317/10/13	1 304454		 ,
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		1 SURVEY		
ORGANIC CARBON	WATER	AUTOANALYZER	MILLIGRAM/LITER	13	STATIONS	1 SURVEY		,
KJELDAHL NITROGEN	WATER	SPECTROPHOTOMETRY	MILLIGRAM/LITER	13		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 ATTENUATIO	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		39	OBS	3 OBS/STATION		
COPPER	WATER	ATOMIC ABSORPTION SPECTROMETRY		39	088	3 OBS/STATION		
IRON	WATER	ATOMIC ABSORPTION SPECTROMETRY		39	OBS	3 OBS/STATION		
LEAD	WATER	ATOMIC ABSORPTION SPECTROMETRY		39	OBS	3 OBS/STATION		
KJELDAHL NITROGEN	CEDIMENT	SPECTROPHOTOMETRY		39	OBS	3 OBS/STATION		
SULFIDE	SEDIMENT	TITRATION	MILLIGRAM/LITER	39	OBS	3 OBS/STATION		
PHOSPHE	SEDIMENT	SPECTROPHOTOMETRY		39	OBS	3 OBS/STATION		
CHEMICAL OXYGEN DEMAND	SEDIMENT	DIGESTION	MILLIGRAM/LITER	39	OBS	3 OBS/STATION		•
0115	SEDIMENT	EXTRACTION/ WEIGHT	MILLIGRAM/LITER	39	OBS	3 OBS/STATION		
ZINC	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY		39	CBS	3 OBS/STATION		
MERCURY	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	, -	39	OBS	3 OBS/STATION		
COPPER	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	• •	39	OBS	3 OBS/STATION		
IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY			OBS	3 OBS/STATION		
LEAD	SEDIMER .	ATUATO ARCODOTION	MILLICOAM/LITED	20	Oos	2 DOC/CTATION		

OBS

3 OBS/STATION

ATUMIC ABSORPTION MILLIGRAM/LITER 39

AN ENVIRONMENTAL INVENTORY OF THE QUEEN ANNE'S HARBOR TRACT (CONT.)

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/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 ZOOPLANKT on	WATER	VISUAL	NUMBER/CUBIC METER	3	OBS	1 SURVEY		,
SPECIES DETERMINATION OF ZO PLANKTON	POTER	KEY	NUMBER/CUBIC METER	3	OBS	1 SURVEY		> *
COUNT OF PHYTOPLANKTON	WATER	VISUAL	NUMBER/CUBIC METER	3	OBS	1 SURVEY		
SPECIES DETERMINATION OF PHYTOPLANKTO	WATER	KEY	NUMBER/CUBIC METER	3	OBS	1 SURVEY	·	
N			<u>.</u>	•				
COUNT OF MICROBIOTA	WATER	VISUAL	NUMBER/100 MILLILITER	39	OBS	3 OBS/STATION		TOTAL BACTERIA; FECAL BACTERIA; TOTAL COLIFORM; TOTAL STREPTOCO CCI
TOTAL DISSOLVED SOLIDS	DISSOLVED	DES.CCATION WEIGHT	MILLIGRAM/LITER	39	OBS	3 OBS/STATION		
PARTICULATE Matte:	WATER	MEMBRANE FILTRATION	MILLIGRAM/LITER	39	OBS	3 OBS/STATION		

DELMARVA ECOLOGICAL SURVEY PLA. KTONIC AND BENTHIC ORGANISMS DATA COLLECTED. JANUARY 1974 TO DECEMBER 1974

PAGE 01 RECEIVED: AUGUST 12, 1976

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 PHYTCPLANKTON, ZOOPLANKTON AND BENTHIC ORGANISMS ARE GIVEN IN ORDER TO OBTAIN INFORMATION ABOUT DAILY AND SEASONAL CHANGES IN POPLLATION 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 PARAMIETERS INCLUDE COLIFORM COUNTS, NUTRIENTS, PIGMENTS, HEAVY METALS, OIL AND GREASE, TEMPERATURE, SALINITY, DISSOLVED DAYGIETERS INCLUDE COLIFORM 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:

UNDN 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

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800 KING STREET
WILMINGTON DELAWARE USA 19899

GRID LOCATOR (LAT): 73079533



PAGE 02

NAME	SPHECE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
POSITION TIME	EARTH EARTH	FIXED POINT STATION TIME	MAP LOCATION YMD	7 7	STATIONS STATIONS	• • • • • • • • • • • • •	••••••	•••••
TEMPERATURE	WATEN	THERMISTOR	DEG F	686	OBS	BIWEEKLY TO	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 DXYGEN 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	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-
HARDNESS	WATER	EDTA TRATION	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH- OCTOBER	SURFACE, BOTTOM	DECEMBER 1 SAMPLE PER OBS; 2 STATIONS
TOTAL ALKALINITY	WATER	TITRATION	MG/L	80	085	MONTHLY - JANUARY, FEBRUARY, NOVEMBER,	SURFACE. BOTTOM	1 SAMPLE PER OBS; 2 STATIONS

085

DELMARVA ECOLOGICAL SURVEY PLA KTONIC AND BENTHIC ORGANISMS (CONT.)

PAGE 03

PARAMETER	LUENTIFICAT	ION	SECTION:
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NAME	SPHERE	METHOD	UNITS	DATA A	MOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
CARBONATE ALKALINITY	WATER	TITRATION	MG/L	80	OBS	DECEMBER, BIWEEKLY - MARCH- OCIOBER MONIHLY - JANUARY, FEBRUARY, NUVEMBER, DECEMBER, BIWEEKLY -	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
SULFATE	WATER	NEPHELOMETRY	MG/L	80	OBS	MARCH- OCTOBER MONTHLY - JANUARY, FEURUARY, NOVEMBER, DECEMBER, BIWEEKLY -	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
TOTAL DISSOLVED SOLIDS	DISSOLVED	DESICCATION WEIGHT	MG/L	80	OBS	MARCH- OCIOBER MONIHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
TOTAL SOLIDS	WATER .	DRY WEIGHT	MG/L	80	OBS	OCTOBER MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
PHOSPHORUS	WATER	COLORIMETRY	MG/L	80	OBS	OCTOBER MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
PHOSPHORUS .	DISSOLVED	COLORIMETRY .	MG/L	80	OBS	OCTOBER MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWFEKLY - MARCH-	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
AMMONIA	WATER	TITRATION	MG/L	80	OBS	OCTOBER MONTHLY -	SURFACE,	1 SAMPLE PER



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PARAMETE	R IDENTIFICATION	SECTION:						
NAME	SPHERE	METHOD	UNITS	DATA	AMOUNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
						JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH- OCIOBER	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	HATER	COLORIMETRY	MG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH- OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
otrż	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 ABSORPTIQU	ñ ử∖ Γ	8Û	<u>grs</u>	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH- OCTOBER	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
CALCIUM	WATEP .	ATOMIC ABSORPTION SPECTROMETRY	UG/L	80	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEFKLY -	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS

DELMARVA ECOLOGICAL SURVEY PLANKTONIC AND BENTHIC ORGANISMS (CONT.)

PAGE 05

PER ORS

000017		DELIMARYA ECGE	OGICAL SURVEY PLAN	KIUNIC	AND BUNIATO	URGANISMS (CU	NI.)	PAGE 05
PARAMETER	ID_NTIFICATION	SECTION:						
NAME	SPHECE	METHOD	UNITS	DATA AN		FREQUENCY	HE IGHT/DEPTH	REMARKS
ALUMINUM	WATER	ATOMIC ABSORPTION SPECTROMETRY		80	OBS	MARCH- OCTOBER MO"THLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH-	SURFACE, BOTTOM	1 SAMPLE PER OBS; 2 STATIONS
SILICON	WATER	COLORIMETRY	MG/L	80	OBS	OCTOBER 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 .		S STATIONS;
BIOCHEMICAL DXYGEN DEMAND	WATER	TITRATION	MG/L	16	OBS	MONTHLY	SURFACE	PER OBS 4 STATIONS; APRIL, JUNE, AUGUST, OCTOBER; 1
CADMIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	OBS	MONTHLY	SURFACE	SAMPLE PER OBS 5 STATIONS; JULY; 1 SAMPLE
CHROMIUM	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	OBS	MONTHLY	SURFACE	PER OBS 5 STATIONS; JULY; 1 SAMPLE
NICKEL	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	085	MONTHLY	SURFACE	PER OBS 5 STATIONS; JULY; 1 SAMPLE
LEAD	V 'TER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	OBS	MONTHLY	SURFACE	PER OBS 5 STATIONS; JULY; 1 SAMPLE PER ORS
ZINC	WATER	ATOMIC ABSORPTION SPECTROMETRY	MG/L	5	085	MONTHLY	SURFACE	5 STATIONS; JULY: 1 SAMPLE PER OBS
1RON	WATER	ATOMI 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	085	MONTHLY		5 STATIONS; JULY; 1 SAMPLE PER OBS
MICKEL	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		5 STATIONS; JULY; 1 SAMPLE PER ORS

DELMARVA ECOLOGICAL SURVEY PLANKTONIC AND BENTHIC ORGANISMS (CONT.)



AGE OR

	NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
	LEAD	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		S STATIONS: JULY: 1 SAMPLE
	ZINC	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		PER OBS 5 STATIONS; JULY; 1 SAMPLE
	IRON	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		PER OBS 5 STATIONS; JULY; 1 SAMPLE
	MERCURY	SEDIMENT	ATOMIC ABSORPTION SPECTROMETRY	UG/KG	5	OBS	MONTHLY		PER OBS 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	WA1 ER	FLUORCMETRY	MG/M3	•	STATIONS	MONTHLY	SURFACE, BOTTOM	4 STATIONS: JANUARY, MARCH- OCTOBER; 2 SAMPLES PER OBS
	TOTAL PHAEOPHYTI	WATER	FLUOROMETRY	MG/M3	4	STATIONS	MONTHLY	SURFACE, BOTTOM	4 STATIONS; JANUARY, MARCH- OCTOBER; 2 SAMPLES PER OBS
	COUNT OF PHYTOPLANKTON	WATER .	FIL:RATION	NUMBER PER SPECIES PER ML PER SAMPLE	560	OBS	MONTHLY - JANUARY, FEBRUARY, NOVEMBER, DECEMBER, BIWEEKLY - MARCH- OCTOBER	SURFACE, DOTTOM	7 STATIONS; 2 SAMPLES PER OBS
,	SPECIES DETERMINATION OF PHYTOPLANKTO N	₩ATER	₩£ À	SPECIES PER ML PER SAMPLE	560	085	MONIHLY - JANUARY, FEBRUARY, NOVEMBER, DLCEMBER, 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;

DELMARVA ECOLOGICAL SURVEY PLANKTONIC AND BENTHIC ORGANISMS (CONT.)

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PARAMETER IDENTIFICATION SECTION:

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HE IGHT/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 ZOUPLANKTON
MORTALITY OF Zooplankton	WATER	VISUAL	PERCENT OF TOTAL INDIVIDUA LS 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 5 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	Shiff ber

083

NEOPLASM IN FYA ARENARIA DATA COLLECTED: 1975 TO PRESENT

PAGE 01 RECEIVED: JANUARY 27, 1977

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 DRSCRVING 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

NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
TIME POSITION	EARTH EARTH	STATION TIME FIXED POINT	YMDL DM	9	STATIONS 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

NEOPLASM IN LYA ARENARIA (CONT.)

PAGE .

PARAMETER IDENTIFICATION SECTION:

	NAME	SPHERE	METHOD	UNITS	DATA AMO	UNT	FREQUENCY	HEIGHT/DEPTH	REMARKS
	•••••				•••••	• • • • • • • • •	************	***********	
	ANIMALS					0.5.5.5			
	MORPHOMETRIC MEASURE OF BENTHIC ANIMALS	BOTTOM	DIRECT	MM, TO THE NEAREST FIVE- TENTHS MM	9	STATIONS	4 UBS/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 BENTH.C 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 SHE'LL
	SEX DETERMINATION OF BENTHIC ANIMALS	BUT?3M	VISUAL		9	STATIONS	4 OBS/YR		3
_	SAMPLE OF BENTHIC ANIMALS	BOTTOM	VARIOUS		9	STATIONS	4 OBS/YR		HISTOLOGICAL SLIDES AND STORED TISSUE OF DISEASED
101	BIOLOGICAL CONDITION OF BENTHIC ANIMALS	BOTTOM	PATHOLOGICAL		ý	STATIONS	4 OBS/YR		CLAMS ARE AVAILABLE

80

OCEAN DISPOSAL SITE OFF THE COAST OF MARYLAND DATA COLLECTED: MARCH 1974 TO PRESENT

PAGE 0: RECEIVED: MARCH 04. 1977

PROJECTS:

GENERA! 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

NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HE IGHT/DEPTH	REMARKS
TIME	EARTH	STATION TIME	YMD	30 STATIONS	• • • • • • • • • • • • • • • • • • • •	***********	• • • • • • • • • • • • • • • • • • • •
POSITION	EARTH	LONG RANGE NAVIGATIONAL NEI	DWS	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			

OCEAN DISPOSAL SITE OFF THE COAST OF MARYLAND (CONT.)

PAGE U3

PARAMETER :	IDENT	IFIC	ATION	SECT	lon:
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MANGANES IN BOTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SPECTROMETRY NICKEL IN BIO MATERIAL SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SILVER IN BIO MATERIAL SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SPECTROMETRY NICKEL IN BIO MATERIAL SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS NICKEL IN BIO MATERIAL NICKEL IN BIO MATERIAL SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SPECTROMETRY VANADIUM IN BIO MATERIAL ZINC IN BIO MATERIAL ZINC IN BIO MATERIAL SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SPECTROMETRY ANOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY AND CHERTIFIC ANIMALS SPECTROMETRY SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SPECTROMETRY AMOUNTS IN ORGANS AND ORGANS		CDUCRE	METHOD	10176	D. T. AMOUNT	50500500	, 	DEMAGUE
MANGANESE IN BIO MATERIAL BIO MATERIAL NICKEL IN BIO MOTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS NICKEL IN BIO MUSCLE DETERMINED SEPARATELY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SILVER IN BIO MATERIAL SPECTROMETRY SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SILVER IN BIO MATERIAL SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS AND MUSCLE DETERMINED SEPARATELY ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS AND MUSCLE DETERMINED SEPARATELY WANADIUM IN BIO MUTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS AND MUSCLE DETERMINED SEPARATELY AND MUSCLE DETERMINED SEPARATELY ADOMITS IN ORGANS AND MUSCLE DETERMINED SEPARATELY CLAMS AND SEPARATELY CLAMS AND SEPARATELY CLAMS AND SCALLOPS SCALLOPS SEPARATELY AND MUSCLE DETERMINED SEPARATELY CLAMS AND SCALLOPS SCALLOPS SEPARATELY AND MUSCLE DETERMINED SEPARATELY CLAMS AND SCALLOPS SEPARATELY AND MUSCLE DETERMINED SEPARATELY CLAMS AND SCALLOPS SEPARATELY AND MUSCLE DETERMINED SEPARATELY CLAMS AND SEPARATELY CLAMS AND SCALLOPS SEPARATELY AND MUSCLE DETERMINED SEP	• • • • • • • • • • • • • • • • • • • •	=		· -		• -	•	REMARKS
MANGAMÉSE IN BOTTOM SPECTROMETRY NICKEL IN BIO NATERIAL SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT SPECTROMETRY SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT SPECTROMETRY VANADIUM IN BIO NATERIAL VANADIUM IN BIO NATERIAL VANADIUM IN BIO NATERIAL SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT SPECTROMETRY VANADIUM IN BIO NATERIAL SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT SPECTROMETRY SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT SPECTROMETRY SPECTROMETRY SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT SPECTROMETRY SPECTROMETRY SPECTROMETRY SPECTROMETRY ATOMIC ABSORPTION PPM DRY WEIGHT SPECTROMETRY SPECTROMET			• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •			
NICKEL IN BIO MATERIAL NICKEL IN BIO MATERIAL MATERIAL SPECTROMETRY TITANIUM IN BIO MUTCH SPECTROMETRY SPECTROMETRY TOWN ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS AND WISCLE DETERMINED SEPARATELY AMOUNTS IN ORGANS AND WISCLE DETERMINED SEPARATELY SPECIES DETERMINED SEPARATELY AMOUNTS IN ORGANS AND WISCLE DETERMINED SEPARATELY SPECIES DETERMINED SEPARATELY AMOUNTS IN ORGANS AND WISCLE DETERMINED SEPARATELY AMOUNTS IN ORGANS AND WISCLE DETERMINED SEPARATELY AMOUNTS IN ORGANS AND WISCLE DETERMINED SEPARATELY SPECIES DETERMINED SEPARATELY AMOUNTS IN ORGANS AND WISCLE DETERMINED SEPARATELY AMOUNTS IN ORGANS AND ORGANS AND ORGANS AND ORGANS AND ORGANS AND	The state of the s	BOTTOM		PPM DRY WEIGHT	30 STATIONS		i.	AMOUNTS IN ORGANS AND
SILVER IN BIO BOTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SILVER IN BIO BOTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY DETERMINED SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY SEPAR				PPM DRY WEIGHT	30 STATIONS			DETERMINED SEPARATELY AMOUNTS IN ORGANS AND
TITANIUM IN BIO BUTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS MATERIAL VANADIUM IN BIO BUTTOM SPECTROMETRY VANADIUM IN BIO BUTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS VANADIUM IN BIO BUTTOM SPECTROMETRY VANADIUM IN BIO BUTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS ZINC IN BIO BUTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS ZINC IN BIO BUTTOM SPECTROMETRY VANADIUM IN BIO BUTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SPECIES BUTTOM KEY 30 STATIONS SPECIES BUTTOM KEY 30 STATIONS SPECIES BUTTOM DIRECT 30 STATIONS BETTHIC ANIMA 3 LENGTH OF BUTTOM DIRECT 30 STATIONS	· -	BOTTOM	- -	PPM DRY WEIGHT	30 STATIONS			DETERMINED SEPARATELY AMOUNTS IN ORGANS AND MUSCLE
VANADIUM IN BIO BGTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS MATERIAL ZINC IN BIO BOTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS ZINC IN BIO BOTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SPECIES BOTTOM KEY 30 STATIONS DETERMINATION OF BENTHIC ANIMA 3 LENGTH OF BOTTOM DIRECT 30 STATIONS BENTHIC ANIMA 3 LENGTH OF BOTTOM WET WEIGHT 30 STATIONS		MCTTUM		PPM DRY WEIGHT	30 STATIONS			SEPARATELY AMOUNTS IN ORGANS AND MUSCLE
ZINC IN BIO BOTTOM ATOMIC ABSORPTION PPM DRY WEIGHT 30 STATIONS SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED SEPARATELY MUSCLE DETERMINED SEPARATELY SPECIES BOTTOM KEY 30 STATIONS CLAMS AND DETERMINATION OF BENTHIC ANIMA 3 LENGTH OF BCTTOM DIRECT 30 STATIONS WEIGHT OF BOTTOM WET WEIGHT 30 STATIONS		BG: TOM	· -	PPM DRY WEIGHT				SEPARATELY Amounts in Organs and Muscle
SPECIES BOTTOM KEY DETERMINATION OF BENTHIC ANIMA 3 LENGTH OF BCTTOM DIRECT BENTHIC ANIMALS WEIGHT OF BOTTOM WET WEIGHT 30 STATIONS SEPARATELY SEPARATEL		воттом		PPM DRY WEIGHT				SEPARATELY AMOUNTS IN ORGANS AND MUSCLE
LENGTH OF BCTTOM DIRECT 30 STATIONS BENTHIC ANIMALS WEIGHT OF BOTIOM WET WEIGHT 30 STATIONS	DETERMINATION OF BENTHIC	BOTTOM .	KEY		30 STATIONS			SEPARATELY CLAMS AND
WEIGHT OF BOTISM WET WEIGHT 30 STATIONS	LENGTH OF BENTHIC	BCTTOM	DIRECT		30 STATIONS			
RENTHIC ANIMALS	WEIGHT OF RENTHIC	BOTIOM	WET WEIGHT		30 STATIONS			
	POSITION	EART:	NAVIGATIONAL	DMS	30 STATIONS			MINI RANGER III



NAME	SPHERE	METHOD	UNITS	DATA AMOUNT	FREQUENCY	HE IGHT/DEPTH	
MANGANESE IN BIO MATERIAL	BOTTOM		PPM DRY WEIGHT			· ·	SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED
NICKEL IN BIO MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED
SILVER IN BEQ MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED
TITANIUM IN BIO MATERIAL	MCTTUd	ATOMIC ABSORPTION SPECTROMETRY	I PPM DRY WEIGHT	30 STATIONS			SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED
VANADIUM IN BIO MATERIAL	8G7TQM	ATOMIC ABSORPTION SPECTROMETRY	I PPM DRY WEIGHT	30 STATIONS		·	SEPARATELY AMOUNTS IN DRGANS AND MUSCLE DETERMINED
ZINC IN BIG MATERIAL	BOTTOM	ATOMIC ABSORPTION SPECTROMETRY	PPM DRY WEIGHT	30 STATIONS			SEPARATELY AMOUNTS IN ORGANS AND MUSCLE DETERMINED
SPECIES DETERMINATION OF BENTHIC	BOTTOM .	KEY		30 STATIONS			SEPARATELY CLAMS AND SCALLOPS
ANIMA 3 LENGTH OF BENTHIC	BCTTOM	DIRECT		30 STATIONS			
ANIMALS WEIGHT OF BENTHIC	MC1 TOB	WET WEIGHT		30 STATIONS			
ANIMALS POSITION	EART.	SHORT RANGE NAVIGATIONAL NET	DMS	30 STATIONS			MINI RANGER 111

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)
- 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)
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
```

```
ammonia (water)
     57, <u>83</u>
amphibol (sediment) - asbestos
     none
amphibol (water)
     none
antimony (dissolved)
     none
antimony (sediment)
     none
antimony (water)
     none
antimony in bio material (bottom)
     none
antimony in bio material (water)
     none
aromatic hydrocarbons (dissolved)
     none
aromatic hydrocarbons (suspended)
     none
aromatic hydrocarbons (water)
aromatic hydrocarbons in bio material (water)
     none
arsenic (dissolved)
     none
arsenic (sediment)
     none
arsenic (suspended)
     none
arsenic (water)
     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)
beryllium in bio material (water)
     none
beta activity (dissolved)
     none
beta activity (sediment)
beta activity (suspended)
```

none

```
beta activity (water)
     none
beta activity in benthic animals (bottom)
beta and gamma activity (interstitial)
     none
beta and gamma activity (sediment)
     none
beta and gamma activity (suspended)
beta and gamma activity (water)
beta and gamma activity in bio material (water)
     none
beta B.H.C.
    use lindane
B.H.C. (sediment) - insecticide
     none
B.H.C. (water)
     none
B.H.C. in bio material (water)
     none
biological condition of benthic animals (bottom)
     78, 90
biomass of microbiota (sediment)
biomass of microbiota (water)
     none
cadmium (dissolved)
     none
cadmium (interstitial)
     none
```

```
cadmium (sediment)
     21, 65, 68, 92
cadmium (suspended)
     none
cadmium (water)
     65, 83
cadmium in bio material (bottom)
      54, 92
cadmium in bio material (sediment)
     none
cadmium in bio material (water)
     8, 9, 11, 12, 27, 39, 65
captan (water) - fungicide
     none
caracide
     use chlorobenside
carbaryl (sediment) - pesticide
     none
carbaryl (water)
     none
carbofuran (water) - insecticide
     none
carbon tetrachloride (water)
     none
catch/effort of benthic animals (bottom)
     76
C.D.E.C. (water) - herbicide
     none
cerium - 144 (sediment)
     none
cesium - 137 (sediment)
     none
```

```
cesium - 137 (water)
     none
chlordane (sediment) - insecticide
chlordane (water)
     none
chlordane in bio material (bottom)
     none
chlordane in bio material (water)
chlorinated hydrocarbons (sediment) - pesticide
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, <u>92</u>
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
```

```
copper in bio material (bottom)
     48, 92
copper in bio material (sediment)
     none
copper in bio material (water)
     8, 9, 11, 12, <u>39</u>, 48, 65
count of benthic animals (bottom)
     6, 19, 27, 29, 35, 55, 74,
     78, 80, 83, 90
count of microbiota (sediment)
count of microbiota (water)
     23, 29, 41, <u>55</u>, 57, 74, 80, <u>83</u>
cyanide (sediment)
     none
cyanide (water)
     none
cyanide in bio material (water)
     none
dacthal (water) - herbicide
     none
DCPA
     use dacthal
DDA (sediment) - insecticide
     none
DDA (water)
     none
DDA in bio material (water)
     none
DDD (sediment) - insecticide
     31
DDD (water)
```

none

```
DDD in bio material (bottom) none
```

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

DDE (sediment) - insecticide

DDE (water) none

DDE in bio material (bottom) none

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

DDT (dissolved) - insecticide none

DDT (sediment)

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)
- dichlone (water) herbicide none
- dicofol (sediment) insecticide
 none
- dicofol (water)
- dieldrin (dissolved) insecticide
 none
- dieldrin (sediment)
 31
- dieldrin (water)
- 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
- 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) 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)
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
```

```
hydrocarbons (dissolved)
     none
hydrocarbons (sediment)
     none
hydrocarbons (suspended)
hydrocarbons (water)
     none
hydrocarbons in bio material (bottom)
     none
hydrocarbons in bio material (water)
     none
insecticide
     use aldrin, BHC, carbofuran, chlordane, chlorobenzilate,
     DDA, DDD, DDE, DDT, dicofol, dieldrin, dilan, dimethoate,
     heptachlor, heptachlor epoxide, kepone, lindane,
     methoxychlor, perthane, phosdrin, ronnel, tedion, thimet,
     thiodan, thoxaphene, trichlorfon
kelthane
     use dicofol
kepone (water) - insecticide
     none
kerosene (water)
     none
land use (land)
     43
lead (dissolved)
     none
lead (interstitial)
     none
lead (sediment)
     21, 51, 65, 68, 80, 83, 92
lead (suspended)
     none
```

```
lead (water)
     65, 80, 83
lead in bio material (bottom)
     48, 92
lead in bio material (water)
     27, 48, 65
lead - 210 (water)
      none
lindane (sediment) - insecticide
     31
lindane (water)
     none
lindane in bio material (bottom)
     none
lindane in bio material (water)
     31
lubricating oil (water)
     none
macroinvertebrates
     use beta activity in benthic animals, biological condition
     of benthic animals, catch/effort of benthic animals, count
     of benthic animals, gamma activity in benthic animals, sample
     of benthic animals, sightings of benthic animals, species
     determination of benthic animals, taxonomic list of benthic
     animals
malathion (sediment) - pesticide
     none
malathion (water)
     none
malathion in bio material (bottom)
malathion in bio material (water)
     none
```

```
MBAS
     use surfactants
mercury (dissolved)
     none
mercury (interstitial)
     none
mercury (sediment)
     12, 21, 65, 68, 80, 83
mercury (suspended)
     none
mercury (water)
     65, 80, 83
mercury in bio material (bottom)
     48
mercury in bio material (water)
     27, 39, 48, 53, 65, 70
methoxychlor (sediment) - insecticide
     none
methoxychlor (water)
     none
methoxychlor in bio material (water)
     none
methoxy DDT
     use methoxychlor
methyl mercury (water)
     none
methyl mercury in bio material (water)
methylparathion (sediment) - pesticide
     none
methylparathion (water)
     none
```

```
methyltrithion (sediment) - pesticide
     none
methyltrithion (water)
     none
mevinphos
     use phosdrin
microbiota
     use biomass of microbiota, count of microbiota, growth
     studies of microbiota, sample of microbiota, species
     determination of microbiota, taxonomic list of microbiota,
     volume determination of microbiota, weight of microbiota
mirex (sediment) - pesticide
     none
mirex (water)
     none
mirex in bio material (water)
     none
mortality of benthic animals (bottom)
     none
neburon (water) - herbicide
     none
nickel (dissolved)
     none
nickel (interstitial)
     none
nickel (sediment)
     21, 65, 68, 83, 92
nickel (suspended)
     none
nickel (water)
     65, 83
nickel in bio material (bottom)
     92
```

```
nickel in bio material (sediment)
     none
nickel in bio material (water)
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
```

```
polychlorinated biphenyls (sediment)
     31
polychlorinated biphenyls (water)
     none
polychlorinated biphenyls in bio material (bottom)
polychlorinated biphenyls in bio material (water)
     31, 45
radium - 226 (water)
     none
radium - 228 (water)
     none
ronnel (water) - insecticide
     none
ruthenium - 106 (sediment)
     none
sample of benthic animals (bottom)
     76
sample of microbiota (sediment)
     none
sample of microbiota (water)
     none
selenium (dissolved)
     none
selenium (sediment)
     65
selenium (water)
     65
selenium in bio material
     none
selenium in bio material (water)
     65
```

```
sevin
    use carbaryl
sightings of benthic animals (bottom)
     none
silver (dissolved)
     none
silver (interstitial)
     none
silver (sediment)
     92
silver (suspended)
     none
silver (water)
     none
silver in bio material (bottom)
     92
silver in bio material (water)
     none
silvex (sediment) - herbicide
     none
silvex (water)
     none
simazine (water) - herbicide
     none
soap
     use detergents
species determination of benthic animals (bottom)
     8, 9, 11, 12, 16, 19, 25, 27, 29, 57, 74,
     76, 80, 83, 90, 92
species determination of microbiota (sediment)
     none
species determination of microbiota (water)
     57, 74
```

```
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)
taxonomic list of microbiota (water)
TDE
     use DDD
tedion (water) - insecticide
     none
telodrin (sediment)
     none
telodrin (water)
     none
tetradifon
     use tedion
thallium (sediment)
     none
thallium (water)
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)
toxins in bio material (bottom)
     none
toxins in bio material (water)
     none
trichlorfon (water) - insecticide
     none
trifluralin in bio material (bottom) - herbicide
trifluralin in bio material (water)
trithion (sediment) - pesticide
     none
trithion (water)
     none
vegadex
     use CDEC
```

```
volume determination of microbiota (sediment)
volume determination of microbiota (water)
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, <u>83</u>
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

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