SAVING OUR COASTS: FINDING THE INFORMATION

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Finding publications which report scientific investigations on the various estuaries around the United States is a concern for librarians, particularly in aquatic and marine science libraries. Increasing pollution of the waters of the coasts and estuaries, along with recent initiatives by the Environmental Protection Agency and the National Oceanic and Atmospheric Administration, have heightened public awareness and emphasized the need for making information on these water bodies available for planners, government organizations, scientists, and citizens. A number of librarians have compiled the literature of their local estuarine system, published printed bibliographies, and created databases which provide a means of locating these publications.

In order to assess the efforts underway to gather the literature of United States estuaries, a survey was distributed to 16 directors of the National Estuary Programs, and to IAMSLIC members. [Table 1] The 18 responses indicated that there is considerable interest in keeping track of this literature, but there are few comprehensive, up-to-date bibliographies or databases of publications. A number of estuary programs had published lists of papers resulting from their funded projects; some bibliographies had been produced with a particular emphasis on water quality, hydrology, or other aspect of interest to the sponsoring organization; and a few databases compiled bibliographic information on local publications; but most of these efforts were not widely circulated. A summary of the results of the survey can be found in Table 2.

There is considerable literature on estuaries, and searches of major commercial databases for a group of selected estuaries resulted in the number of records shown in Table 3. Databases searched were: ASFA (Aquatic Sciences and Fisheries Abstracts), BIOSIS (Biological Abstracts and Biological Abstracts/RRM), GOREF, NTIS, and WRA (Water Resources Abstracts). Chesapeake Bay on the East coast, the Gulf of Mexico, and Puget Sound on the West coast retrieved the highest number of records from each source, with some exceptions such as San Francisco Bay which has had an exceptionally large number of geological studies.

These databases provide access to publications in major journals, important conferences, and widely distributed technical reports. However, articles in journals may not have been indexed for the location of the study; and the many reports, newsletter articles, and other types of publications which comprise the grey literature are not usually included in major indexes. To verify this observation, the Narragansett Bay Bibliography database
was examined, and the entries for documents published during a ten year period were sorted for method of location. Less than half were found by searching databases and indexes. [Table 4] The additional publications were identified by checking reference lists and other bibliographies, examining articles in appropriate journals, collecting publications of local authors, and looking at the holdings of the libraries in the region.

Many important studies sponsored by states and the federal government, management projects, and county and city reports may not be referenced in any major source. For example, there have been 111 research reports published so far by the Narragansett Bay Project. Selecting 15 of them which were released in 1990, several databases were searched. ASFA, GEOREF, NTIS, and WRA databases yielded no references to these documents. They could be found on OCLC (the national cataloging database) which showed 4 locations, but only within the state of Rhode Island.

Using the IAMSLIC survey results with some additions from the literature on estuaries, Table 5 is a list of published bibliographies on specific estuaries, and some significant general bibliographies on estuarine systems. A list of bibliographic databases was also compiled from the survey responses. [Table 6] In order to provide the public and the scientific community with the information needed to manage and plan for the future of estuaries and coastal areas, we must encourage the distribution of all types of publications to libraries. This procedure insures that documents will be cataloged and can be borrowed by anyone who needs the information. In addition, a national effort to merge local databases on estuaries would provide much important data of universal interest and add greatly to the body of knowledge which is essential for managing these valuable resource areas.

TABLE 1. ESTUARIES INFORMATION SURVEY

This survey is being conducted as part of a program on estuaries for IAMSLIC 1993. We would appreciate any information you can provide. Natalie Wiest and Jan Sieburth.

Name of Estuary:
States/Provinces included in estuary system:

Physical Characteristics:
   Surface area:
   Volume:
   Shoreline (including islands):
   Area of watershed (drainage basin):
   Population in area:

State/National Parks/Sanctuaries:
Information Products:
   Bibliographies:
Pamphlets:
Data sources:
GIS system:
Other:

If a recent bibliography has been compiled:
   Number of records:
   Years included:
   Is there a print product:
   Software used:
   Size in megabytes:
   Is it available for remote access via modem or WAN?
   Brief description of format:

Name, address for further information:

Please respond to: Jan Sieburth, Pell Marine Science Library
                    Univ. of Rhode Island, Narragansett Bay Campus
                    Narragansett, RI 02882-1197

TABLE 2. SUMMARY OF RESULTS OF ESTUARIES INFORMATION SURVEY

ALBEMARLE-PAMLICO ESTUARY, North Carolina

Information Products:
   Bibliography of Hydrologic and Water-Quality Investigations Conducted in or
   Near the Albemarle-Pamlico Sounds Region, North Carolina. Jerad D. Bales and

Address: Randy Waite, Director; Albemarle/Pamlico Estuarine Study, Dept. of
         Environment, Health & Natural Resources, P.O. Box 27687, Raleigh, NC 27611-
         7687
BISCAYNE BAY, Florida

Parks/Sanctuaries: Biscayne National Park (southern part)
Information Products:
  Biscayne Bay, a Bibliography of the Marine Environment, 1993.
  Print product: Florida Sea Grant Technical Paper 67.
  Software: PROCITE
  Size: 1,742,686 megabytes, 1,718 records, 1775-1992

Address: Kay Hale, RSMAS Library, Univ. of Miami,
   4600 Rickenbacker Cswy, Miami, FL 33149

CASCO BAY, Maine

Parks/Sanctuaries:
  Bradbury Mountain State Park, Pownal Game Farm and Visitors Center, Gray
  Sebago State Park, Naples Wolfe Neck Woods State Park, Freeport
Information Products:
  Bibliographies: Two partial bibliographies being compiled
  GIS system: Yes
  Annotated bibliography of information relating to water quality. Prepared by
  Bibliography of the Casco Bay Estuary Project, 1 page.
  Newsletter: Currents, no. 1-

Address: Casco Bay Estuary Project
   312 Canco Road
   Portland, ME 04103

CHESAPEAKE BAY, Maryland and Virginia

Information Products:
  Chesapeake Bay Bibliography, Virginia Inst. of Marine Science
  Data sources: Chessee

Address: Kathy Heil, Chesapeake Biological Laboratory
  (410) 326-7287 heil@cbl.umd.edu
GALVESTON BAY, Texas

Parks/Sanctuaries:
   San Jacinto State Park
   Galveston Island State Park
   Armand Bayou Park

Information Products:
   Galveston Bay Literature Survey & Information Center
   Data sources: Galveston Bay Data Inventory (print guide)
   Other: Galveston Bay National Estuary Program Office, Webster, TX
   COMPAS Texas with mini-GIS, management level information for state of Texas
   Recent bibliography: Galveston Bay Literature Survey, 5,000 records. Print product in press.
   Software: INMAGIC; Available for remote access.

Address: Natalie Wiest, Williams Library, Texas A&M University at Galveston, Galveston, TX 77553

GULF OF MEXICO, Mississippi, Louisiana, Texas

Parks/Sanctuaries:
   2 Mississippi state parks
   Gulf Islands National Seashore
   Sandhill Crane Sanctuary
   Grand Bay National Wildlife Refuge, Mississippi
   Coastal Preserve Project, 20 sites in Mississippi

Information Products:
   GULFLINE; "Gulf Facts", Gulf of Mexico Program
   Electronic bulletin board, 800-235-4662

Address: Malcolm Ware, Gunter Library, Gulf Coast Research Laboratory, P.O. Box 7000, Ocean Springs, MS 39566-7000
   Gulf of Mexico Program, Building 1103, Room 202
   Stennis Space Center, MS 39529
INDIAN RIVER LAGOON, Florida

Parks/Sanctuaries:
6 Federal parks
2 wildlife refuges
1 national seashore
Sebastian Inlet State Park

Information Products:
Bibliography of publications
Inventory and Analysis of Management and Regulatory Programs Affecting the Indian River Lagoon.
LagoonNet: Statewide electronic bulletin board, 800-645-7908

Address: Indian River Lagoon National Estuary Program
1900 S. Harbor City Blvd., Suite 109
Melbourne, FL 32901

Deborah Anderson, Florida Institute of Technology
Evans Library, 150 West University Boulevard,
Melbourne, FL 32901-6988
LONG ISLAND SOUND, Connecticut, New York
Parks/Sanctuaries:
  7 state parks, Connecticut
Information Products:
  Bibliography of Long Island Sound, Natural Resources Center, Hartford, CT.
The Sound Book, Long Island Soundkeeper Fund, Norwalk CT. 1993
GIS: ARCINFO
Recent Bibliography:
  Records: 1,300+
  Dates: 1915-
  Software: Gencat Revelation
  Size: 20-30 megabytes
  Remote Access: No, and no print product
Address: Connie B. Cooke, Library (for CT information only)
  University of Connecticut at Avery Point
  1084 Shennecossett Road, Groton, CT 06340-6097
Library, SUNY Stony Brook for Long Island information

NARRAGANSETT BAY, Rhode Island

Parks/Sanctuaries:
  10 state beaches
  9 state parks plus the Bay Islands Park System

Information Products:
  The Bay Bib: Narragansett Bay Bibliography, 1979-1988 (print)
The Bay Bib database, approx. 1200 records, 1979-
Software: INMAGIC, with SearchMagic for patron searching
Remote access: No

Address: Janice Sieburth, Pell Marine Science Library, University
of Rhode Island, Narragansett, RI 02882-1197
  401-792-6546, sieburth@gsosun1.gso.uri.edu
NEW YORK-NEW JERSEY HARBOR ESTUARY

Information Products:
  Reference collection at Hudson River Foundation, indexed
  List of reports on Estuary Program

Address:  Christine Yost, Librarian, Hudson River Foundation
          New York City, 212-924-8290

OLD WOMAN CREEK,  Huron, Ohio; Erie County

Parks/Sanctuaries:
  Old Woman Creek National Estuarine Research Reserve
  Old Woman Creek National Estuarine Sanctuary

Information Products:
  Various M.S. theses

Address:  Dr. David Egloff, Dept. of Biology
          Oberlin College, Oberlin OH 44074
          Alison Ricker, Science Librarian
          Oberlin College, 216-775-8310

PECONIC ESTUARY, Long Island, New York

Parks/Sanctuaries:
  5 state parks
  3 county parks
  2 national wildlife refuges

Information Products:
  Around the "Bays" Newsletter

Address:  Robert L. Battenfeld, Reference Librarian
          Southampton Campus, Long Island University
          Southampton, NY 11968
PENOBSCOT BAY AND GULF OF MAINE, Maine, Massachusetts, New Hampshire, Nova Scotia

Parks/Sanctuaries:
   Acadia National Park
   Various state parks including Bay Islands

Information Products:
   Maine Bibliography that includes estuary information, Maine State Library, Augusta
   GIS system: PC ARC/INFO, Maine Dept. of Conservation, for State of Maine and Penobscot Bay
      ArcInfo, College of the Atlantic, near-coastal Gulf of Maine
   Bibliography for Penobscot Bay and Gulf of Maine, 1920-360 records, also in print (J. Boucher)
      Software: EndNote Plus
      Size: Program, 0.33 MB; Records, 0.14 MB
   Maine Bibliography (all ecosystems) (R. Harvey)
      12-13,000 records

Address: Joceline Boucher, Comming School of Ocean Studies, Maine Maritime Academy, Castine, ME 04420
        207-326-2240

        Richard Harvey, Consultant, Maine State Library
        3 Fern Circle, Scarborough, ME 04074
        207-883-6847
PUGET SOUND, Washington State

Parks/Sanctuaries: Many in or adjacent

Information Products:
  Data Sources: Sound Access (Diskettes)
  GIS system: Puget Sound GIS--GIS data layers; Postscript files for painting;
  Diskettes/Tape
    Bibliography: 11,000 records, to end of 1990
    Print Product: No; Remote access: no
    Software: Eloquent Systems--Genent, 25 megabytes

Address: Timothy W. Ransom, Puget Sound Water Quality Authority
         P.O. Box 40900; Olympia, WA 98504-0900

ST. ANDREW BAY, Florida

Parks/Sanctuaries:
  St. Andrews State Recreation Area
  St. Andrews State Park Aquatic Preserve

Information Products:
  A Bibliography of Research on St. Andrew Bay, Its Tributaries, and the Nearby
  Coastal Waters of Bay County, Florida. R. N. Shaffer, 1993.
  Database Description: 359 records; 1900-1993; Software: ProCite; not available by remote access

Address: Rosalie Shaffer, National Marine Fisheries Service
         Library, 3500 Delwood Beach Rd., Panama City, FL 32408.
         Telephone: 904-234-6541
ST. CROIX ESTUARY, New Brunswick; Maine

Parks/Sanctuaries:
- St. Croix Island, U.S. International Historic Site
- Moosehorn Wildlife Refuge, Maine
- Oak Bay Provincial Park, New Brunswick

Information Products:

Address: Robert Rainer, 237 Water Street, St. Andrews, New Brunswick E0G 2X0 Canada; P.O. Box 394, Calais, Maine 04619. Telephone: 506-529-4868

TAMPA BAY, Florida

Parks/Sanctuaries:
- Egmont Key State Park
- Aquatic Preserves: Pinellas Park, Cockroach Bay

Information Products:
- Bibliographies: BDB, 1987
- Central subject directory (ongoing)
- GIS system: Arc Info--NEP GIS Library (ongoing)

Recent bibliography: Central Subject Directory (data, data sources, bibliographies) ongoing
- modified Dataflax (instruction manual being developed)
- Will be available electronically

Address: Holly Greening, Scientist; Tampa Bay National Estuary Program, St. Petersburg, FL 33701
813-893-2765
YAQUINA BAY, Oregon

Information Products:
   Sea Grant flyer
   Various EIS studies; masters/doctoral theses

Address: Janet Webster, Guin Library/MMSC
   Newport, OR 97365; Telephone: 503-867-0249

<table>
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<tr>
<th>ESTUARY</th>
<th>ASFA</th>
<th>BIOSIS</th>
<th>GEOREF</th>
<th>NTIS</th>
<th>WRA</th>
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### TABLE 4. DOCUMENT TYPES LOCATED FOR THE BAY BIB, THE NARRAGANSETT BAY BIBLIOGRAPHY, 1979-1988, AND METHOD USED TO FIND THEM

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<tr>
<th>DOCUMENT TYPE</th>
<th>DATABASE SEARCH</th>
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<tr>
<td>Articles</td>
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<tr>
<td>Reports</td>
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<td>Theses/Dissertations</td>
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<td>Book Chapters</td>
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<td>Conference Papers</td>
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<td>Books</td>
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<td>Newsletters</td>
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<td>Maritimes (local newsletter)</td>
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<td><strong>TOTALS</strong></td>
<td><strong>539</strong></td>
<td><strong>688</strong></td>
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</table>

### TABLE 5. BIBLIOGRAPHY OF PRINTED BIBLIOGRAPHIES ON ESTUARIES

**SPECIFIC ESTUARIES:**


Annotated Bibliography of the Maryland Coastal Zone Management Program. 1980. Prepared by George Stanton and Matthew Norman. Annapolis, MD, Maryland Dept. of Natural Resources. 23 pp. OCLC:21951430


GENERAL ESTUARINE:


<table>
<thead>
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<th>TABLE 6. PRELIMINARY BIBLIOGRAPHY OF DATABASES ON ESTUARIES</th>
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<td>Chessie. Chesapeake Bay Database. Kathy Heil, Chesapeake Biological Laboratory.</td>
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<td>Computer-Accessible Annotated Bibliography of the Corpus Christi Bay Estuary. 787 records. Port Aransas Marine Laboratory, University of Texas.</td>
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<td>GULFLINE. Bulletin Board. Al Ballard, Gulf of Mexico Program, 601-688-7001</td>
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