



This document contains Appendices A, B, and C from the Volunteer Estuary Monitoring Manual, A Methods Manual, Second Edition, EPA-842-B-06-003. The full document can be downloaded from:

<http://www.epa.gov/owow/estuaries/monitor/>

Voluntary Estuary Monitoring Manual

Appendix A: Sample Data Forms

Appendix B: Resources

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March 2006

Appendix A

Sample Data Forms



Appendix A: Sample Data Forms

The following pages contain examples of data forms that may be useful to volunteer estuary monitoring programs. Many of the forms are currently being used by volunteer groups throughout the U.S.

The data forms that can be found on the following pages include:

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PATUXENT RIVER DATA COLLECTION FORM

[Please return to: Joyce Brooks, ACB, P.O. Box 1981, Richmond, VA 23218]

Collection Date _____ Time of Day _____ (military time)

MONITOR NAME _____ MONITOR NUMBER _____

SITE NAME _____ SITE NUMBER _____

DATA

Air Temperature _____ °C

Secchi Depth _____ M

Water Depth _____ M

Water Temperature (in bucket) _____ °C

Hydrometer Reading _____

Hydrometer Reading _____

Correction Factor _____

Adjusted Reading _____

Salinity _____ ppt

Water Temperature (in Hydrometer Jar) _____ °C pH _____ SU

Dissolved Oxygen: Test I _____ Test II (must be within .6 of Test I) _____

GENERAL CONDITIONS

Water Surface (circle one): 1 Calm 2 Ripple 3 Waves 4 White Caps

Weather (circle one): 1 Sunny 2 Partly Cloudy 3 Overcast 4 Fog/Haze
 5 Drizzle 6 Intermittent Rain 7 Rain 8 Snow

Rainfall _____ mm (weekly accumulation)

Other: 1 Sea Nettles 2 Dead Fish 3 Dead Crabs 4 SAV 5 Oil Slick 6 Ice 7 Debris
 8 Erosion 9 Foam 10 Bubbles 11 Odors

Water Color: Normal Abnormal (describe) _____
 (circle one)

Nutrient Sample Taken (circle one): Yes No

Tidal Stage (circle one): High Outgoing Low Incoming

COMMENTS: _____

Signature _____ Date _____

(Source: Alliance for the Chesapeake Bay)

Citizen Monitoring Program Water Quality Data Sheet

**1
I.D.**

Site name/Number: _____ Collection date (mo/dy/yr): ___/___/___
 Monitor name(s): _____ Time (military): _____ hours

**2
WEATHER
CONDITION**

Air temperature: _____.____ C
 Weather (check one) clear snow overcast fog/haze
 drizzle downpour partly cloudy
 Number of days with similar weather _____ days
 Rainfall in previous 24 hours (check one): none light heavy ____ inches

**3
SITE
OBSERVATIONS**

Tidal stage (check one): high ebb high
 low ebb low
 low flood flood
 high flood
 Water surface (check one): calm ripple waves white caps
 Indicators (check all that apply):
 fish kills dead crabs oil on surface debris
 erosion foam bubbles odors
 abnormal color birds animals other
 Please elaborate on the above: _____

**4
FIELD/LAB
MEASUREMENTS**

Secchi depth: _____.____ m Water temperature: _____.____ C pH: _____.____
 Dissolved oxygen Test 1 – mg/l _____.____ Test 2 – mg/l _____.____
 Salinity: _____.____ 0/00 Fecal coliform colonies: _____.____ per 100 ml
 Lab analysis by: _____

Return to: _____

(Source: Stancioff, E. 1992. *Clean Water: A Guide to Water Quality Monitoring for Volunteer Monitors of Coastal Waters*. Maine/New Hampshire Sea Grant Marine Advisory Program and Univ. of Maine Cooperative Extension. Orono, ME. 73 pp.)

CITIZEN MONITORING DATA SHEET

Date of Sampling: _____

Time of Day: _____ a.m. or p.m.

Volunteer Name: _____

Site Name: _____

SITE CONDITIONS

(Check one item under each category except under "Other," in which you should check all that apply.)

Wind: Calm ___ Slight Breeze ___ Moderate Breeze ___ Windy ___**Weather:** Clear ___ Partly Cloudy ___ Overcast ___ Rainy ___ Drizzle ___ Fog ___ Snow ___**Wind Direction:** N ___ NE ___ E ___ SE ___ S ___ SW ___ W ___ NW ___**Air Temperature:** ___ °C**Rainfall:** Weekly Accumulation (in inches) ____.**Tidal Stage:** Flooding ___ High Slack ___ Ebbing ___ Low Slack ___**Water Surface:** Calm ___ Ripples ___ Chop ___ Swells ___**Water Color:** Med. Brown ___ Dk. Brown ___ Red-Brown ___ Green-Brown ___
Green ___ Yellow-Brown ___ Other _____**Smell:** Sewage ___ Oily ___ Fishy ___ Rotten Eggs ___ None ___ Other _____**Other:** Sea Nettles ___ Dead Fish ___ Dead Crabs ___ Algal Bloom ___ Oil Slick ___
Ice ___ Debris ___ Erosion ___ Foam ___ Bubbles ___ Other _____

WATER QUALITY MEASUREMENTS

Secchi Disk: ____ meters**Water Depth:** ____ meters**Hydrometer (uncorrected):** ___ °C**Water Temp. in Bucket:** ___ °C**Water Temp. in Hydrom. Jar:** ___ °C**Hydrometer (corrected):** ___ °C**Salinity:** ____ ‰**pH:** _____**Dissolved Oxygen:** Test 1 ___ ppm Test 2 ___ ppm **Average:** ___ ppm**Time spent doing above sampling:** _____**General Comments:** _____

_____**Signature:** _____

(Source: unknown)

Coastal Watershed Survey Data Sheet

Surveyors: _____ Sector: _____ Site: _____
 _____ Date: _____ Time: _____
 _____ Rainfall: _____ # of Photos _____

Location (Describe landmarks and mark the site number on the sector map.)

Person(s) contacted at site:

**Directions: Check off the appropriate items in categories 1-6.
 Use the back side of this sheet for comments or site sketches.**

1. POLLUTANT(s) (potential or known):

Toxic___ Bacteria___ Nutrients___ Sediment___ Other_____

2. DIRECT DISCHARGE TO WATER BODY? Yes___ No___

Distance to water body or channel _____

Slope between location and water body or channel: flat___ moderate___ steep___

3. VEGETATED BUFFER? (between activity you are documenting and water body or channel)

Yes___ No___ Width___

4. SOURCE OF POLLUTANT(s)

Commercial & Residential:

- ___ Impervious areas
- ___ Septic system
- ___ Driveway
- ___ Lawn
- ___ Industrial runoff
- ___ Golf course runoff
- ___ Commercial runoff
- ___ Residential runoff
- ___ Construction site
- ___ Shoreline erosion
- ___ Other _____

Roads:

- ___ Ditch erosion
- ___ Shoulder erosion
- ___ Surface erosion
- ___ Culvert inlet/outlet
- ___ Stream crossing
- ___ Private road
- ___ Town road
- ___ State road
- ___ Logging road
- ___ Other _____

Agriculture:

- ___ Livestock grazing
- ___ Tilled fields
- ___ Manure/fertilizer spreading
- ___ Manure storage
- ___ Other _____

Marinas:

- ___ Boat maintenance
- ___ Waste discharge
- ___ Impervious areas
- ___ Fueling station
- ___ Refuse disposal
- ___ Other _____

Other Source: _____

5. SIZE OF AFFECTED AREA: Area or Length _____

6. COMMENTS, RECOMMENDATIONS, AND SKETCH (use back side)

(Source: Maine Department of Environmental Protection (DEP). 1996. *A Citizen's Guide to Coastal Watershed Surveys*. 78 pp.)

Please fill out the survey data sheet as follows:

SURVEY INFORMATION BOX:

Surveyors: Enter names of survey team members that identified the site.

Sector: Enter the number of the survey sector.

Site: Enter a site reference number 1, 2, etc. to give each site a unique identification.

Date and Time: Enter the date and time of day the problem was observed.

Rainfall: Enter the estimated rainfall amount during the past 24 hours.

Number of Photos: Record the number of photos taken at each site.*

Location: This information is critical for the follow-up analysis. Indicate the location of the site on your sector map. Describe access roads and distances from reference points to the site on the data sheet.

Person(s) Contacted at Site: Indicate if your survey team talked with a property owner or anyone else while at the site.

1. **POLLUTANT(S):** Check the pollutants generated at the site that are impacting or may potentially impact a waterbody.
2. **RUNOFF:** Determine if there is a direct pathway for runoff to carry the pollutants into the water body. Indicate the distance of the site to nearest water body or channel, and estimate the slope of the land between the site to the nearest waterbody or channel.
3. **VEGETATED BUFFER:** Indicate if runoff from the site flows through a vegetated buffer before reaching the nearest water body or channel, and the buffer width. Check the type of vegetation growing in the buffer. Determine if runoff in the buffer can spread evenly as it flows through the buffer, rather than flowing into the buffer.
4. **SOURCE OF POLLUTANTS:** Check the land uses/sources generating pollutants at each site.
5. **SIZE OF AFFECTED AREA:** Try to estimate the size of the area involved, such as the length or an eroding road ditch or the area of exposed soil.
6. **COMMENTS SKETCHES:** Use the back side of the survey data sheet for any additional comments or any drawings that would help to describe the site for future follow-up work and to prioritize. Include any recommendations your survey team has to eliminate or reduce the severity of the problem that you have identified.

***NOTE:** Photographs should be taken where they can help document the nature and severity of the problem. They will be used by those who do the follow-up analysis and may be used for documentation in any efforts to obtain funding for remedial efforts in the watershed. One close and one distance photo should be taken for perspective. When taking a close shot, try to include some object in the photo to provide a reference of size.

INTERNATIONAL COASTAL CLEANUP™ DATA CARD

Data collected during the International Coastal Cleanup™ is used to educate the public and develop solutions to solid waste management practices. Through cooperative efforts among government agencies, private industries, community associations, environmental organizations and local citizens, changes in behavior and practices result which help to conserve and protect the environment. The annual cleanup is how we measure our continued success. Thank you for being a very important part of this process.

Type of Cleanup: Shoreline/Beach Underwater Country Where Cleanup Was Conducted: _____

Zone or County Cleaned: _____ Beach Site Name: _____

Today's Date: Month _____ Day _____ Year _____ Name of Coordinator: _____

Number of People Working on This Card: _____ Distance Cleaned: _____

Number of Trash Bags Filled: _____ Total Estimated Weight Collected: _____

NAMES OF PARTICIPANTS IN YOUR GROUP

If you are interested in learning more about **The Ocean Conservancy's** efforts to protect our oceans and waterways and if you would like to receive *Action Alerts* on critical marine conservation issues from The Ocean Conservancy's free Ocean Action Network (OAN), please check the box below with your name and address.

1. Name: _____ **Age:** _____
Address: _____
City: _____ **State:** _____
Country: _____ **Zip Code:** _____
Phone: (_____) _____
Email: _____
 I would like information on: The Ocean Conservancy The OAN

3. Name: _____ **Age:** _____
Address: _____
City: _____ **State:** _____
Country: _____ **Zip Code:** _____
Phone: (_____) _____
Email: _____
 I would like information on: The Ocean Conservancy The OAN

2. Name: _____ **Age:** _____
Address: _____
City: _____ **State:** _____
Country: _____ **Zip Code:** _____
Phone: (_____) _____
Email: _____
 I would like information on: The Ocean Conservancy The OAN

4. Name: _____ **Age:** _____
Address: _____
City: _____ **State:** _____
Country: _____ **Zip Code:** _____
Phone: (_____) _____
Email: _____
 I would like information on: The Ocean Conservancy The OAN

ENTANGLED ANIMALS: (Dead or Alive). Type of Animal(s) and What Entangled the Animal: _____

WHAT WAS THE MOST PECULIAR ITEM YOU COLLECTED? _____

The following national and international organizations endorse and/or support the International Coastal Cleanup:

- ◆ U.S. Environmental Protection Agency
- ◆ IUCN – The World Conservation Union
- ◆ Intergovernmental Oceanographic Commission (IOC) of the United Nations' Educational, Scientific, and Cultural Organization (UNESCO)

Please return this card to your area coordinator or mail it to:

The Ocean Conservancy
 Pollution Prevention and Monitoring Office
 1432 N. Great Neck Road, Suite 103
 Virginia Beach, VA 23454 USA
 Phone (757) 496-0920
 Fax (757) 496-3207



The Ocean Conservancy
 Formerly the Center for Marine Conservation

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ITEMS COLLECTED

The debris forms listed on this data card should be considered as indicator items based on their known uses (related activities) and impacts in the marine/aquatic environment (animal entanglement and ingestion, habitat destruction, human health and safety, vessel disablement, and economics and aesthetics).

Volunteers should clean up all debris found on the beach but only record information on the items listed below.

Keep a count of your items using tick marks and enter the item total in the box.

Example: 8 ♦ Bags/Food Wrappers ||||

SHORELINE AND RECREATIONAL ACTIVITIES

(Debris from beach-goers, sports/games, festivals, litter from streets/storm drains, etc.)

- | | |
|--|---|
| <input type="checkbox"/> ♦ Bags/Food Wrappers _____
<input type="checkbox"/> ♦ Balloons _____
<input type="checkbox"/> ♦ Beverage Bottles (plastic) 2 liters or less _____

<input type="checkbox"/> ♦ Beverage Bottles (glass) _____
<input type="checkbox"/> ♦ Beverage Cans _____
<input type="checkbox"/> ♦ Caps, Lids _____
<input type="checkbox"/> ♦ Clothing, Cloth _____ | <input type="checkbox"/> ♦ Cups, Plates, Forks, Knives, Spoons _____
<input type="checkbox"/> ♦ Diapers _____
<input type="checkbox"/> ♦ Fast-food Containers _____
<input type="checkbox"/> ♦ 6-Pack Holders _____
<input type="checkbox"/> ♦ Pull Tabs _____
<input type="checkbox"/> ♦ Shotgun Shells/Wadding _____
<input type="checkbox"/> ♦ Straws, Stirrers _____
<input type="checkbox"/> ♦ Toys _____ |
|--|---|

OCEAN/WATERWAY ACTIVITIES

(Debris from recreational/commercial fishing and boat/vessel operations)

- | | |
|--|--|
| <input type="checkbox"/> ♦ Bait Containers/Packaging _____
<input type="checkbox"/> ♦ Bleach/Cleaner Bottles _____
<input type="checkbox"/> ♦ Buoys/Floats _____
<input type="checkbox"/> ♦ Crab/Lobster/Fish Traps _____
<input type="checkbox"/> ♦ Crates _____
<input type="checkbox"/> ♦ Fishing Line _____
<input type="checkbox"/> ♦ Fishing Lures _____ | <input type="checkbox"/> ♦ Fishing Nets _____
<input type="checkbox"/> ♦ Light Bulbs/Tubes _____
<input type="checkbox"/> ♦ Oil/Lube Bottles _____
<input type="checkbox"/> ♦ Pallets _____
<input type="checkbox"/> ♦ Plastic Sheeting/Tarps _____
<input type="checkbox"/> ♦ Rope _____
<input type="checkbox"/> ♦ Strapping Bands _____ |
|--|--|

SMOKING-RELATED ACTIVITIES

(Debris associated with smoking-related waste)

-
- ♦ Cigarettes/Cigarette Filters _____
-
-
-
- ♦ Cigarette Lighters _____
-
-
- ♦ Cigar Tips _____
-
-
- ♦ Tobacco Packaging/Wrappers _____

DUMPING ACTIVITIES

-
- ♦ Appliances (refrigerators, washers, etc.) _____
-
-
- ♦ Batteries _____
-
-
- ♦ Cars/Car Parts _____
-
-
- ♦ Construction Materials _____
-
-
- ♦ 55-Gal. Drums _____
-
-
- ♦ Tires _____

MEDICAL/PERSONAL HYGIENE

-
- ♦ Syringes _____
-
-
- ♦ Condoms _____
-
-
- ♦ Tampons/Tampon Applicators _____

DEBRIS ITEMS OF LOCAL CONCERN

(Items listed determined by local ICC Coordinator)

-
- ♦ _____
-
-
- ♦ _____
-
-
- ♦ _____

National Marine Debris Monitoring Program Data Card

Thank you for completing this data card. Please answer the questions and return to your survey director. This information will be used in The Ocean Conservancy's National Marine Debris Monitoring Program's data base to determine trends and sources of specific debris items.

Name _____ Affiliation _____

NMDMP Region _____ Survey Site _____

Survey Number _____ Today's date: ____ / ____ / ____

Air Temperature _____ Wind Direction _____

Wind Speed _____ (1=no wind, 2=slight, 3=moderate, 4=heavy, 5=gale)

Brief Description of Weather _____

Weather Conditions from previous week: _____

Time (Beginning of Survey) _____ Time (End of Survey) _____

Other Remarks _____

Safety Tips

- | | |
|--|------------------------------------|
| 1. Wear gloves and closed-toed shoes. | 4. Watch out for wildlife. |
| 2. Be careful with sharp objects and syringes. | 5. Don't lift heavy objects. |
| 3. Stay out of dunes. | 6. Do not go near any large drums. |

Dead, Live and/or Entangled Animals:

Foreign Labels: _____

Survey Director: _____

Please return this card to your survey director or mail it to:

The Ocean Conservancy
1432 N. Great Neck Road, Suite 103
Virginia Beach, VA 23454



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Printed on recycled paper

Items Collected

You may find it helpful to work with a buddy as you clean the area, one of you picking up trash and the other taking notes. An easy way to keep track of the items you find is by making tick marks. The box is for total items; see sample below.

Example:

Balloons |||| ||| ||| || 17

Ocean-Based

Gloves _____	
Pl. sheets \geq 1 meter _____	
Light bulbs/tubes _____	
Oil/gas containers ($>$ 1 quart) _____	
Pipe-thread protectors _____	
Nets \geq 5 meshes _____	
Traps/pots _____	
Fishing line _____	
Light sticks _____	
Rope \geq 1 meter _____	
Salt bags _____	
Fish baskets _____	
Cruiseline logo items _____	
Floats/Buoys _____	

Land-Based

Syringes _____	
Condoms _____	
Metal beverage cans _____	
Motor oil containers (1 quart) _____	
Balloons _____	
Six-pack rings _____	
Straws _____	
Tampon applicators _____	
Cotton swabs _____	

General Sources

Plastic bags with seam $<$ 1 meter _____	
\geq 1 meter _____	
Straps Open _____	
Closed _____	
Plastic bottles: beverage _____	
food _____	
bleach/cleaner _____	
other pl. bottles _____	
Comments: _____	

SUBMERGED AQUATIC VEGETATION SURVEY FORM

Please use only one form for each area surveyed

SURVEYOR

Name: _____ Area Code and Telephone: _____

Address: _____

City: _____ State: _____ Zip: _____

AREA SURVEYED

Date of Sighting: _____ Time of Sighting: _____

Name of Map/ Quadrangle: _____

Method of Survey? (circle) Boat Pier Shore Other _____

Water Conditions: (circle) Clear Murky Other _____

Approximate Water Depth (in feet) _____

SAV SURVEY

Using the SAV map as a guide, locate SAV beds. Consult the field guide to identify the type of SAV in each bed. Use common plant names on this form. If you find a bed which is not shown on your map, mark the location of this new bed and identify the plants. Assign roman numerals to identify new SAV beds.	
SAV BED	SAV SPECIES
EXAMPLE: (a). AB2 (b). I (new bed) (c). CB4	(a). Horned Pondweed , Redhead Grass (b). Widgeon Grass (c). No Plants Present
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

Did you survey this area last year? ____ If yes, were there any noticeable changes in the composition, size, or density of the beds? Please explain. _____

Any other comments or observations? (i.e. weather/ water conditions, wildlife sightings, problems etc.)

**Return to: U.S. Fish and Wildlife Service
 177 Admiral Cochrane Drive
 Annapolis, MD 21401
 Attention: Kathryn Reshetiloff**

(Source: U.S. Fish and Wildlife Service SAV Hunt)

SAV SURVEY FORM

Name: _____ Telephone: (____) _____ - _____

Address: _____

City: _____ State: _____ Zip: _____

SURVEY SITE

Name of Site/Map/Quadrangle: _____

Date: _____ Time: _____ a.m. or p.m. Water Depth: _____ meters

Plants surveyed from: Boat Shore Pier Other _____

Water Conditions: Clear Murky Other _____

SURVEY

For each plant bed marked on the accompanying map, verify location and size, estimate SAV density, and identify plants present using a field guide. Write "no plants" for marked beds with no SAV. With a pencil, outline the position of new beds and identify them by number directly on the map.

Bed Name: _____ Approximate Density: _____

Species Present: _____

Comments (bed location and size changes, density or species changes since last sighting, weather and water conditions, problems, etc.):

Bed Name: _____ Approximate Density: _____

Species Present: _____

Comments (bed location and size changes, density or species changes since last sighting, weather and water conditions, problems, etc.):

(Send completed forms to the SAV Survey Coordinator)

(Source: unknown)

TAMPA BAYWATCH
 TAMPA BAY NATIONAL ESTUARY PROGRAM
 SCALLOP SEARCH DATA SHEET

Date:	Boat Captain:
Bay Segment:	Phone #:
Map Number:	Address:

	FIRST SITE	SECOND SITE	THIRD SITE	FOURTH SITE	FIFTH SITE
Site # or Letter					
Time					
Latitude					
Longitude					
LORAN/GPS Coordinates					
Water Depth					
Start					
End					
Transect Length					
Diver 1					
Diver 2					
Scallop Count					
Diver 1					
Diver 2					
Veg. Type					
Veg. Density					
Diver 1 Signature					
Diver 2 Signature					
Boat Captain Signature					

(Source: Tampa BayWatch and Tampa Bay Estuary Program)

Washington State Department of Health
 Public Health Laboratories
 1610 NE 150th Street, Seattle, WA 98155-9701

For LAB Use Only
SAMPLE # _____
DOMOIC # _____

SHELLFISH BIOTOXIN SAMPLE FORM

DATE COLLECTED ____/____/____

DATE SUBMITTED ____/____/____

COLLECTOR/COMPANY _____

TELEPHONE (____) _____

CERT # _____

GRID# _____

SAMPLING SITE _____

STATE WA

COUNTY _____

(M) MONITORING

(O) OTHER

(S) SUPPLEMENTAL

(U) UNKNOWN

(C) COMMERCIAL

(S) IN SHELL

(F) FRESH

(S) SPORT/SUBSISTENCE

(K) SHUCKED

(Z) FROZEN

(R) RESEARCH

(C) COOKED

(P) PROGRAM

SPECIES: *(Mark only one)*

(T) CONTRACT

(CB) BUTTER CLAMS

(OP) PACIFIC OYSTERS

(O) OTHER _____

(CL) LITTLENECK CLAMS

(CM) MANILA CLAMS

(MB) BLUE MUSSELS

(KD) CRAB

(MC) CALIFORNIA MUSSELS

(SP) PINK SCALLOPS

(CR) RAZOR CLAMS

(CG) GEODUCK

(XX) OTHER _____

OF ORGANISMS _____

COMMENTS _____

LABORATORY RESULTS - LAB USE ONLY

LABORATORY RESULTS - LAB USE ONLY							
DATE/TIME RECEIVED							
Mark only one	µg/100gm	PSP		Mark only one	DOMOIC ACID		
		TIME AND DATE REPORTED	INITIALS		PPM	TIME AND DATE REPORTED	INITIALS
<input type="checkbox"/> MEAT				<input type="checkbox"/> MEAT			
<input type="checkbox"/> GUT				<input type="checkbox"/> GUT			
<input type="checkbox"/> WHOLE				<input type="checkbox"/> WHOLE			
<input type="checkbox"/> OTHER				<input type="checkbox"/> OTHER			
COMMENTS							

Revised 1/99

Visit the Biotoxin Bulletin on the Internet: <http://www.doh.wa.gov/ehp/sf/biotoxin.htm>

Crustacean Volunteer Survey Form

Date: _____ GREEN CRAB# _____
 Name: _____ SIZE(S) _____
 Phone Number: _____ SEX(ES) _____
 Estuary: _____
 Specific Location: _____ Chinese Mitten Crab# _____
 _____ Size(s) _____
 _____ Sex(es) _____
 Time of Day: _____
 Number of Searchers: _____
 Tidal Stage: _____
 Extent of Search: _____

GEAR: _____ HABITAT TYPE: _____
 - Shore Trap _____ - Cobbles _____
 - Minnow Trap _____ - Riprap _____
 - Pit Trap _____ - Tidal Flat _____
 - Shore Walk _____ - Tidal Channel _____
 - Other _____ - Other _____

List of Other Species Observed **Size across the carapace in MM**
Crustaceans

Purple shore crab (*Hemigrapsus nudas*) TOTAL NUMBER _____

Sex										
Size										

Oregon shore crab (*H. oregonensis*) TOTAL NUMBER _____

Sex										
Size										

Lined shore crab (*Pachygrapsus crassipes*) TOTAL NUMBER _____

Sex										
Size										

Red rock crab (*C. productus*) TOTAL NUMBER _____

Sex										
Size										

Pacific rock crab (*C. antennarius*) TOTAL NUMBER _____

Sex										
Size										

Dungeness crab (*Cancer magister*) TOTAL NUMBER _____

Sex										
Size										

Flat porcelain crab (*Petrolisthes cinctipes*) TOTAL NUMBER _____

Sex										
Size										

Other crab species

Sex										
-----	--	--	--	--	--	--	--	--	--	--

Mollusks

Native oyster (*Ostrea lurida*) TOTAL NUMBER _____

Size										
Size										

Pacific oyster (*Crassostrea gigas*) TOTAL NUMBER

Size										
Size										

California Mussel (*Mytilus californianus*) TOTAL NUMBER

Size										
Size										

Butter clam (*Saxidomas giganteus*) TOTAL NUMBER

Size										
Size										

Gaper clam (*Tresus capax*) TOTAL NUMBER

Size										
Size										

Cockle clam (*Clinocardium nuttalli*) TOTAL NUMBER

Size										
Size										

Little Neck clam (*Protothaca staminea*) TOTAL NUMBER

Size										
Size										

Soft-shell clam (*Mya arenaria*) TOTAL NUMBER

Size										
Size										

Manila clam TOTAL NUMBER

Size										
Size										

Other

Size										
Size										

Algae

- Focus
- Eel grass (*Zostera* spp.)
- Filamentous
- Other

Numbers of Snails

- Blue Top Snail (*Calliostoma ligatum*)
- Checkered Periwinkle (*Littorina scutulata*)
- Black Turban Snail (*Tegula funebris*)
- Wrinkled Dove Snail (*Amphissa columbiana*)
- Emarginate Whelk (*Nucella emarginata*)

COMMENTS

Contact: Jon Graves PSU/MERTS Phone (503) 338-6749 FAX (503) 338-6750
Email: jgraves@orednet.org PLEASE RETURN:
PSU/MERTS 6550 Liberty Lane, Astoria, OR 97103

(Source: Portland State University Nonindigenous Species Monitoring Program)

EUROPEAN GREEN CRAB SURVEY FORM

Surveyor Info

Name: _____

Date: _____

Daytime Phone: _____

Organization: _____

Trapping Location

Water Body: _____

County: _____

Nearest Landmarks: _____

Nearest City: _____

Shoreline Type: Salt Marsh Tidal Channel Tidal Flat Other _____Substrate Type: Cobble Gravel Mud Sand Other _____Algae/Vegetation: *Ulva* (sea lettuce) *Fucus* (rockweed) Filamentous
 Zostera (eel grass) *Spartina* (cordgrass) Other _____**Trap Info**Trap Type: Crayfish/Minnow Pit Fall Other _____

Trap Number (1 of?): _____ of _____ Bait Used: _____

Date & Time Traps Set: _____ Low Tide Time (Seattle): _____ (day 1)

Date & Time Traps Retrtd.: _____ Tide Height (Seattle): _____ (day 1)

Catch Info for Crab Species Trapped No Crabs Caught European green crab (*Carcinus maenas*)

ⓄDO NOT RELEASE GREEN CRAB! Freeze sample and call WDFW at (360)796-4601.

# M:	# F:	Total #:
# M Molts:	# F Molts:	Total # Molts:

 Oregon/Hairy/Yellow shore crab (*Hemigrapsus oregonensis*)

# M:	# F:	Total #:
------	------	----------

 Purple shore crab (*Hemigrapsus nudus*)

# M:	# F:	Total #:
------	------	----------

 Red rock crab (*Cancer productus*)

# M:	# F:	Total #:
------	------	----------

 Dungeness crab (*Cancer magister*)

# M:	# F:	Total #:
------	------	----------

 Other crab species

Species:	# M:	# F:	Total #:
----------	------	------	----------

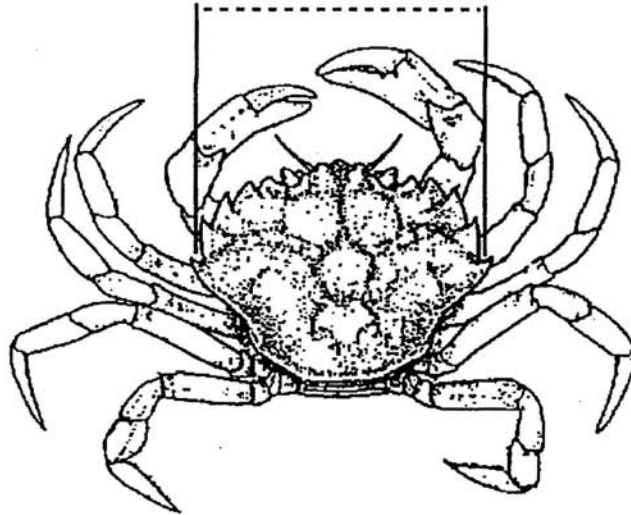
* See back for carapace diagram and Comments section.

(Source: Washington Department of Fish and Wildlife)

EUROPEAN GREEN CRAB

Carcinus maenas

Measure the widest distance across the back
directly in front of the tips



Up to 3 ½ inches across the back of the shell
Color varied, dark, mottled, often green, orange or red

Comments: _____

Appendix B

Resources



Appendix B: Resources

DOCUMENTS NOT REFERENCED IN PREVIOUS CHAPTERS

U.S. EPA. 1992. *National Estuary Program Monitoring Guidance*. Office of Water, Washington, DC. EPA 842-B-92-004. Web site: <http://www.epa.gov/OWOW/estuaries/guidance/>.

U.S. EPA. 1995. *Proceedings of the Fourth National Citizen's Volunteer Monitoring Conference*. EPA Office of Water, Washington, DC. EPA 841-R-94-003.

U.S. EPA. 1992. *Proceedings of the Third National Citizen's Volunteer Monitoring Conference*. EPA Office of Water, Washington, DC. EPA 841-R-92-004.

U.S. EPA. *Bibliography of Methods for Marine and Estuarine Monitoring (Files 61-80)*. Web site: <http://www.epa.gov/owowwtr1/info/PubList/monitoring/docs/list4.html>.

U.S. EPA Technical Information Packages (TIPS) Publications List. Web site: <http://www.epa.gov/clhtml/tips.html>.

NEWSLETTERS

Coastlines

National Estuary Program Newsletter

Subscriptions are free. To subscribe, contact:

Coastlines

Urban Harbors Institute

100 Morrissey Blvd.

Boston, MA 02125-3393

Fax: 617-287-5575

E-mail: coastlines@umb.edu

Also available online at www.epa.gov/nep/coastlines/.

NPS News-Notes

EPA Office of Wetlands, Oceans and Watersheds Occasional bulletins dealing with the condition of the water-related environment, the control of nonpoint sources of water pollution, and the ecosystem-driven management and restoration of watersheds.

Subscriptions are free. To subscribe, send name and address to:

NPS News-Notes

c/o Terrene Institute

4 Herbert St.

Alexandria, VA 22305

Phone: 703-548-5473

Fax: 703-548-6299

Also available online at <http://www.epa.gov/owowwtr1/info/NewsNotes/>.

The Volunteer Monitor

The National Newsletter of Volunteer Water Quality Monitoring
Published twice yearly. Subscriptions are free. To subscribe, contact:

River Network
The Volunteer Monitor Newsletter
520 SW 6th Ave, Suite 1130
Portland, OR 97204-1535
Phone: 503-241-3506
E-mail: volmon@rivernetwork.org
Also available online at www.epa.gov/OWOW/monitoring/volunteer/vm_index.html.

INTERNET RESOURCES

EPA Volunteer Monitoring ListServe

To subscribe or unsubscribe, send an email to listserv@unixmail.rtpnc.epa.gov. Leave the subject line blank. In the message type:
subscribe volmonitor lastname firstname or unsubscribe volmonitor lastname firstname
To post a message, address your email to volmonitor@unixmail.rtpnc.epa.gov

The Ocean Conservancy's Ocean Action Network

You can help protect marine wildlife, and the ecosystems of which they are a part, by joining The Ocean Conservancy's Ocean Action Network (OAN). Subscribers will receive free OAN Alerts and Updates on issues by e-mail or regular mail:

Ocean Action Network
1725 DeSales St., NW
Suite 600
Washington, DC 20036

If you prefer to receive and respond to alerts via email, visit The Ocean Conservancy's Web site (www.oceanconservancy.org) and go to "Ocean Action Network"; or send a message, including your name, postal address and email address to ocean-alert@oceanconservancy.org.

Federal Agency Web Pages:

EPA

EPA homepage: <http://www.epa.gov/>
EPA Office of Water: <http://www.epa.gov/ow/>
EPA Office of Wetlands, Oceans & Watersheds: <http://www.epa.gov/owow/>
National Estuary Program: <http://www.epa.gov/owow/estuaries/nep.html>
Surf Your Watershed: <http://www.epa.gov/surf>
Volunteer Monitoring: <http://www.epa.gov/OWOW/monitoring/vol.html>
Watershed Information Network: <http://www.epa.gov/win>

NOAA

National Sea Grant Program: <http://www.nsgo.seagrant.org/index.html>
NERRS Estuary-Net Project: <http://inlet.geol.sc.edu/estnet.html>
Volunteering for the Coast: <http://volunteer.nos.noaa.gov/>

Others

U.S. Department of Agriculture, Natural Resources Conservation Service:

<http://www.nrcs.usda.gov/>

U.S. Fish and Wildlife Service: <http://www.fws.gov/>

U.S. Forest Service: <http://www.fs.fed.us/>

U.S. Geological Survey: <http://www.usgs.gov/>

Links to Environmental Groups:

EnviroLink: <http://www.envirolink.org/>

Kentucky Water Watch: <http://water.nr.state.ky.us/ww/vm.htm>

U.S. EPA Office of Water: <http://www.epa.gov/owow/estuaries/links.htm#local>

FEDERAL AGENCIES AND PROGRAMS

Environmental Protection Agency (EPA)

Office of Wetlands, Oceans, and Watersheds

Volunteer Monitoring (4504T)

1200 Pennsylvania Avenue, NW

Washington, DC 20460

Phone: 202-566-1200

Fax: 202-566-1336

E-mail: OW-General@epamail.epa.gov

National Estuary Program (NEP)

Web site: <http://www.epa.gov/owow/estuaries/nep.html>

National Oceanic and Atmospheric Administration (NOAA)

U.S. Department of Commerce

14th Street & Constitution Ave., NW

Room 6013

Washington, D.C. 20230

Phone: 202-482-6090

Fax: 202-482-3154

Email: answers@noaa.gov

NOAA Estuarine Reserve Division (NERRS)

1305 East West Highway N/ORM5

Silver Spring, MD 20910

Phone: 301-713-3132

Fax: 301-713-4363

Web site: <http://www.ocrm.nos.noaa.gov/nerr/>

National Estuary Program (NEP) Contacts

Alabama

Mobile Bay Estuary Program
4172 Commanders Drive
Mobile, AL 36615
Phone: 251-431-6409
Fax: 251-431-6450
Web site: <http://mobilebaynep.com>

California

Moro Bay Estuary Project
601 Embarcadero, Suite 11
Morro Bay, CA 93442
Phone: 805-772-3834
Fax: 805-772-4162
Web site: <http://www.mbnep.org>

San Francisco Estuary Project
1515 Clay St., Suite 1400
Oakland, CA 94612
Phone: 510-622-2465
Fax: 510-622-2501
Web site: <http://www.abag.ca.gov/bayarea/sfep/sfep.html>

Santa Monica Bay Restoration Project
320 W. Fourth St., 2nd floor
Los Angeles, CA 90013
Phone: 213-576-6615
Fax: 213-576-6646
Web site: <http://www.smbay.org>

Connecticut

Long Island Sound, CT/NY
Long Island Sound Study
64 Stamford Government Center
888 Washington Boulevard
Stamford, CT 06904-2152
Phone: 203-977-1541
Fax: 203-977-1546
Web site: <http://www.epa.gov/region01/eco/lis>

Delaware

Delaware Estuary Program, DE/NJ/PA
Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628
Phone: 609-883-9500 ext. 217
Fax: 609-883-9522
Web site: <http://www.delep.org/>

Center for the Inland Bays
467 Highway One
Lewes, DE 19958
Phone: 302-645-7325
Fax: 302-645-5765
Web site: <http://www.udel.edu/CIB>

Florida

Charlotte Harbor Estuary Program
SW Florida Regional Planning Council
4980 Bayline Dr., 4th Fl.
North Fort Myers, FL 33917-3909
Phone: 941-995-1777
Fax: 941-656-7724
Web site:
<http://www.charlotteharbornep.com/>

Indian River Lagoon Program
1900 South Harbor City Blvd., #107
Melbourne, FL 32901
Phone: 407-984-4950
Fax: 407-984-4937
Web site: <http://www.epa.gov/owow/oceans/lagoon/>

Sarasota Bay Project
5333 N. Tamiami Trail, Suite 104
Sarasota, FL 34234
Phone: 941-359-5841
Fax: 941-359-5846
Web site: <http://www.sarasotabay.org>

Tampa Bay Estuary Program
100 8th Avenue, SE, MS I-1/NEP
St. Petersburg, FL 33701
Phone: 727-893-2765
Fax: 727-893-2767
Web site: <http://www.tbep.org/>

Massachusetts Bays Program
251 Causeway Street
Suite 900
Boston, MA 02114-2151
Phone: 617-626-1230
Fax: 617-626-1240
Web site:
<http://www.state.ma.us/massbays>

Louisiana

Barataria-Terrebonne Estuary Program
P.O. Box 2663
Nicholls State University Campus
Thibodaux, LA 70310
Phone: 504-447-0868 or 800-259-0869
Fax: 504-447-0870
Web site: <http://www.mail.btnep.org>

New Hampshire

New Hampshire Estuaries
152 Court Street
Portsmouth, NH 03801
Phone: 603-433-7187
Fax: 603-431-1438
Web site: <http://state.nh.us/nhep>

Maine

Casco Bay Estuary Project
University of Southern Maine
P.O. Box 9300
49 Exeter Street
Portland, ME 04104-9300
Phone: 207-780-4820
Fax: 207-780-4917
Web site:
<http://www.cascobay.usm.maine.edu>

New Jersey

Barnegat Bay Estuary Program
P.O. Box 2191
Toms River, NJ 08753
Phone: 732-506-5313
Fax: 732-244-8396
Web site: <http://www.bbep.org>

Maryland

Maryland Coastal Bays Program
9609 Stephen Decatur Highway
Berlin, MD 21811
Phone: 410-213-2297
Fax: 410-213-2574
Web site: <http://www.dnr.state.md.us/coastalbays>

Delaware Estuary Program, DE/NJ/PA
Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628
Phone: 609-883-9500 ext. 217
Fax: 609-883-9522
Web site: <http://www.delep.org/>

Massachusetts

Buzzards Bay Estuary Program
2870 Cranberry Highway
E. Wareham, MA 02538
Marion, MA 02738
Phone: 508-291-3625
Fax: 508-291-3628
Web site: <http://www.buzzardsbay.org/>

New York-New Jersey Harbor Estuary
Program
290 Broadway
24th Floor.
New York, NY 10007
Phone: 212-637-3816
Fax: 212-637-3889
Web site: <http://www.harborestuary.org>

New York

Long Island Sound Study
64 Stamford Government Center
888 Washington Boulevard
Stamford, CT 06904-2152
Phone: 203-977-1541
Fax: 203-977-1546
Web site: <http://www.epa.gov/region01/eco/lis>

New York-New Jersey Harbor Estuary Program
290 Broadway
24th Floor.
New York, NY 10007
Phone: 212-637-3816
Fax: 212-637-3889
Web site: <http://www.harborestuary.org>

Peconic Estuary Program
Department of Health Services
County of Suffolk
Riverhead County Center, 2nd floor
Riverhead, NY 11901
Phone: 631-852-2077
Fax: 631-852-2743
Web site: <http://www.co.suffolk.ny.us/health/eq/pep.html>

North Carolina

Albemarle-Pamlico Sounds NEP
N.C. DENR
P.O. Box 27687
Raleigh, NC 27611-7687
Phone: 919-733-5083 ext. 585
Fax: 919-715-5637
Web site: <http://h2o.enr.state.nc.us/nep/>

Oregon

Lower Columbia River Estuary Program
811 SW Naito Parkway
Portland, OR 97204
Phone: 503-226-1565
Fax: 503-226-1580
Web site: <http://www.lcrep.org>

Tillamook Bay Estuary Program
613 Commercial Avenue
P.O. Box 493
Garibaldi, OR 97118
Phone: 503-322-2222
Fax: 503-322-2261
Web site:
<http://www.co.tillamook.or.us/gov/estuary/tbnep/nephome.html>

Pennsylvania

Delaware Estuary Program
Delaware River Basin Commission
P.O. Box 7360
West Trenton, NJ 08628
Phone: 609-883-9500 ext. 217
Fax: 609-883-9522
Web site: <http://www.delep.org/>

Puerto Rico

San Juan Bay NEP
400 Fernandez Juncos Ave., No. 400
San Juan, PR 00901-3299
Phone: 787-725-8162
Fax: 787-725-8164
Web site: <http://www.estuariosanjuan.org>

Rhode Island

Narragansett Bay Estuary Program
235 Promenade Street
Providence, RI 02908-5767
Phone: 401-222-4700 ext. 7271
Fax: 401-521-4230
Web site: <http://www.nbep.org>

Texas

Coastal Bend Bays and Estuaries Program
 Natural Resources Building, Suite 3300
 6300 Ocean Drive
 Corpus Christi, TX 78412
 Phone: 361-980-3425
 Fax: 361-980-3437
 Web site: <http://tarpon.tamucc.edu>

Galveston Bay Estuary Program
 711 West Bay Area Boulevard, # 210
 Webster, TX 77598
 Phone: 281-332-9937
 Fax: 281-332-8590
 Web site:
<http://gbep.tamug.tamu.edu/gbepix.html>

Washington

Lower Columbia River Estuary Program
 811 SW Naito Parkway
 Portland, OR 97204
 Phone: 503-226-1565
 Fax: 503-226-1580
 Web site: <http://www.lcrep.org>

Puget Sound Water Quality Action Team
 Puget Sound Estuary Program
 P.O. Box 40900
 Olympia, WA 98504-0900
 Phone: 360-407-7300;
 800-54-SOUND (WA only)
 Fax: 360-407-7333
 Web site:
http://www.wa.gov/puget_sound

National Estuarine Research Reserve System (NERRS) Contacts

Alabama

Weeks Bay NERR
 11300 U.S. Highway 98
 Fairhope, AL 36532-5476
 Phone: 334-928-9792
 Fax: 334-928-1792

Anchorage Office - ADF&G
 Alaska Department of Fish and Game
 Habitat and Restoration Division
 333 Raspberry Rd.
 Anchorage, AK 99518
 Phone: 907-267-2331
 Fax: 907-267-2464

Alaska

Kachemak Bay NERR
 Homer Office - Reserve Headquarters
 202 West Pioneer Avenue
 Homer, AK 99603
 Phone: 907-235-4799
 Fax: 907-235-4794

California

Elkhorn Slough NERR
 1700 Elkhorn Road
 Watsonville, CA 95076
 Phone: 831-728-2822
 Fax: 831-728-1056

Tijuana Estuary Visitor Center
301 Caspian Way
Imperial Beach, CA 91932
Phone: 619-575-3613
Fax: 619-575-6913

San Francisco Bay (Proposed) NERR
Romberg-Tiburon Center
P.O. Box 855
Tiburon, CA 94920
Phone: 415-338-3703
Fax: 415-435-7120

Delaware

Delaware NERR
818 Kitts Hummock Rd.
Dover, DE 19901
Phone: 302-739-3436
Fax: 302-739-3446

Florida

Apalachicola NERR
Visitor and Education Center
261 7th Street
Apalachicola, FL 32320
Phone: 850-653-8063/2296

Administrative and Technical Offices
350 Carroll Street
Eastpoint, FL 32328
Phone: 850-670-4783
Fax: 850-670-4324

Rookery Bay NERR
Department of Environmental Protection
300 Tower Road
Naples, FL 34113
Phone: 941-417-6310
Fax: 941-417-6315

Guana Tolomato Matanzas NERR
PO Box 840069
St. Augustine, FL 32084
Phone: 904-461-4053
Fax: 904-461-4053

Georgia

Sapelo Island NERR
P.O. Box 15
Sapelo Island, GA 31327
Phone: 912-485-2251
Fax: 912-485-2141

Maine

Wells NERR
342 Laudholm Farm Road
Wells, ME 04090
Phone: 207-646-1555
Fax: 207-646-2930

Maryland

Chesapeake Bay NERR - Maryland
Maryland Department of Natural
Resources
Tawes State Office Building, E-2
580 Taylor Avenue
Annapolis, MD 21401
Phone: 410-260-8713
Fax: 410-260-8739

Massachusetts

Waquoit Bay NERR
P.O. Box 3092
149 Waquoit Highway
Waquoit Bay, MA 02536
Phone: 508-457-0495
Fax: 617-727-5537

Mississippi

Grand Bay NERR
Department of Marine Resources
6005 Bayou Heron Resources
Moss Point, MS 39562
Phone: 228-475-7047
Fax: 228-475-8849

New Hampshire

Great Bay NERR
N.H. Fish and Game Department
Marine Fisheries Department
225 Maine Street
Durham, NH 03824
Phone: 603-868-1095
Fax: 603-868-3305

Sandy Point Discovery Center; GBNERR
89 Depot Road
Stratham, NH 03885
Phone: 603-778-0015

New Jersey

Jacques Cousteau NERR
Institute of Marine and Coastal Sciences
Rutgers University
71 Dudley Road
New Brunswick, NJ 08903-0231
Phone: 732-932-6555
Fax: 732-932-8578

New York

Hudson River NERR
NYS DEC, c/o Bard College Field
Station
Annandale-on-Hudson, NY 12504-5000
Phone: 914-758-7010
Fax: 914-758-7033

St. Lawrence River (Proposed) NERR
317 Washington Street
Watertown, NY 13601
Phone: 315-785-2443
Fax: 315-785-2574

North Carolina

North Carolina NERR
5001 Masonboro Loop Road
1 Marvin Moss Lane
Wilmington, NC 28409
Phone: 910-962-2470
Fax: 910-962-2410

North Carolina NERR
c/o Duke University Marine Laboratory
135 Pivers Island Road
Beaufort, NC 28516
Phone: 252-728-2170
Fax: 252-728-6273

Ohio

Old Woman Creek NERR
Department of Natural Resources
2514 Cleveland Road East
Huron, OH 44839
Phone: 419-433-4601
Fax: 419-433-2851

Oregon

South Slough NERR
P.O. Box 5417
Charleston, OR 97420
Phone: 541-888-5558
Fax: 541-888-5559

North Inlet-Winyah Bay NERR
Baruch Marine Field Laboratory
University of South Carolina
P.O. Box 1630
Georgetown, SC 29442
Phone: 843-546-3623
Fax: 843-546-1632

Puerto Rico

Jobos Bay NERR
Department of Natural and
Environmental Resources
Call Box B
Aguirre, PR 00704
Phone: 787-853-4617
Fax: 787-953-4618

Virginia

Chesapeake Bay NERR - Virginia
Virginia Institute of Marine Science
P.O. Box 1346
Gloucester Point, Virginia 23062
Phone: 804-684-7135
Fax: 804-684-7120

Rhode Island

Narragansett Bay NERR
55 South Reserve Drive
Prudence Island, RI 02872
Phone: 401-683-6780 (on-site)
Fax: 401-682-1936

Washington

Padilla Bay NERR
Department of Ecology
10441 Bayview-Edison Road
Mount Vernon, WA 98273-9668
Phone: 360-428-1558
Fax: 360-428-1491
TDD: 360-757-1549

South Carolina

Ace Basin NERR
P.O. Box 12559
Charleston, SC 29412
Phone: 843-762-5062
Fax: 843-762-5001

Appendix C

Equipment Suppliers



Appendix C: Equipment Suppliers

This is a partial list of suppliers from which a volunteer estuary monitoring program might obtain scientific equipment. This list does not imply endorsement by the U.S. Environmental Protection Agency.

Aquatic Research Instruments

P.O. Box 93
Lemhi, ID 83465
Phone: 800-320-9482; 208-756-8433
Web site: www.aquaticresearch.com
Water samplers, sediment samplers, plankton samplers, drift nets, calibrated lines, armored thermometers, BOD bottles.

Ben Meadows Company

190 Etowah Industrial Court
Canton, GA 30114
Phone: 800-241-6401
Web site: www.benmeadows.com
Waders, rubber boots, field water test equipment, kick nets, dip nets, wash buckets, forceps.

Carolina Biological Supply Company

2700 York Road
Burlington, NC 27215-3398
Phone: 800-334-5551
Web site: www.carolina.com
Flexible arm magnifiers, hand lenses, forceps, kick nets, microscopes, reagents, educational materials, live and mounted specimens for instruction.

Cole Parmer Instruments, Inc.

625 East Bunker Court
Vernon Hills, IL 60061
Phone: 800-323-4340
Web site: www.coleparmer.com
Lab equipment, field water test equipment, microscopes.

Chemetrics

Route 28
Calverton, VA 20138
Phone: 800-356-3072
Web site: www.chemetrics.com
Water testing kits for field analysis of dissolved oxygen, nitrate, nitrite, ammonia, phosphates, chlorine, sulfur, manganese, others.

Consolidated Plastics

8181 Darrow Road
Twinsburg, OH 44087
Phone: 800-362-1000
Web site: www.consolidatedplastics.com
Sampling trays, buckets, Nalgene bottles, Whirl-paks.

Earth Force

1908 Mt. Vernon Avenue, 2nd Floor
Alexandria, VA 22301
Phone: 703-299-9485
Web site: www.earthforce.org
Earth Force's GREEN program has low-cost, self-contained, nontoxic, premeasured water monitoring kits designed for young people.

Fisher Scientific Company

711 Forbes Ave.
Pittsburgh, PA 15219
Phone: 800-766-7000
Web site: www.fishersci.com
Lab equipment, sample bottles, sieves, reagents and chemicals, incubators, water test equipment, Whirl-paks.

Forestry Suppliers, Inc.

P.O. Box 8397
Jackson, MS 39284-8397
Phone: 601-354-3565
Web site: www.forestry-suppliers.com
Secchi disks, transparency tubes, water sampling equipment, bottom dredges, sediment samplers, plankton and other nets, fish measuring boards. Ask for "Environmental Source" catalogue.

GREEN

See Earth Force

Hach Equipment Company

P.O. Box 389
Loveland, CO 80539-0389
Phone: 800-227-4224
Web site: www.hach.com
Field and lab water testing equipment, spectrophotometers, incubators, water sampling kits, fecal coliform sampling supplies (including presence-absence tests), reagents, educational materials.

Hydrolab Corporation

8700 Cameron Road
Austin, TX 78754
Phone: 800-949-3766
Web site: www.hydrolab.com
Multi-parameter electronic meters for physical and chemical parameters.

Idexx Laboratories

One Idexx Drive
Westbrook, ME 04092
Phone: 800-321-0207
Web site: www.idexx.com
Colilert products for bacterial testing.

J. L. Darling Corporation

2614 Pacific Highway East
Tacoma, WA 98424-1017
Phone: 253-922-5000
Web site: www.riteintherain.com
All-weather writing paper.

LaMotte

P.O. Box 329
Chestertown, MD 21620
Phone: 800-344-3100; 410-778-3100 (in Maryland)
Web site: www.lamotte.com
Water sampling kits, field and lab water testing equipment, Secchi disks, water samplers, armored thermometers, calibrated lines, plankton nets, kick nets, educational materials.

Lawrence Enterprises

See Water Monitoring Equipment & Supply

Micrology Laboratories

206 West Lincoln Avenue
Goshen, IN 46526
Phone: 888-327-9435
Web site: www.micrologylabs.com
Lab equipment and media for bacterial testing, including Coliscan products (Coliscan EasyGel and Coliscan MF) and ECA Check.

Millipore Corporation

80 Ashby Road
Bedford, MA 01730
Phone: 800-645-5476
Web site: www.millipore.com
Fecal coliform testing supplies (complete sterile water filtration system), membrane filters, sterile pipettes, petri dishes, sterile media, other water sampling and testing equipment and lab supplies, incubators, Whirl-paks.

Nalge Nunc International

P.O. Box 20365
Rochester, NY 14602
Phone: 800-625-4327
Web site: www.nalgenunc.com
Fecal coliform testing supplies, membrane filters, sterile pipettes, petri dishes, incubators, Whirl-paks.

National Archives and Records Administration

Cartographic and Architectural Branch
8601 Adelphi Road
College Park, MD 20740-6001
Phone: 301-713-7040
E-mail: carto@arch2.nara.gov (Note: when submitting a request via e-mail, be sure to include a regular mail address.)
Web site:
www.nara.gov/research/ordering/mapordr.html
Photographs, generally from before 1955.

Nichols Net and Twine, Inc.

2200 Highway 111
Granite City, IL 62040
Phone: 618-797-0211; 800-878-6387
Nets of all kinds (dip, kick, insect, larvae, macroinvertebrates), seines, custom nets.

Ocean Pro Shop

4060 DuPont Parkway
Townsend, DE 19734
Phone: 302-378-8666
Web site: www.wserv.com/oceanpro/
Nets.

Onset Computer Corporation

P.O. Box 3450
Pocasset, MA 02559-3450
Phone: 800-564-4377; 508-759-9500
Web site: www.onsetcomp.com
Data loggers.

Strategic Diagnostics Inc. (SDI)

111 Pencader Drive
Newark, DE 19702
Phone: 800-544-8881
Web site: <http://www.sdix.com>
Immunoassay kits for pesticides, other contaminants.

Thomas Scientific Company

99 High Hill Road
P.O. Box 99
Swedesboro, NJ 08085
Phone: 856-467-2000; 800-345-2100
Web site: www.thomassci.com
Lab equipment, sample bottles, sieves, reagents, incubators, water test equipment, Whirl-paks.

U.S. Department of Agriculture

USDA Consolidated Farm Service Agency
Aerial Photography Field Office
2222 West 2300 South
Salt Lake City, UT 84119-2020
Phone: 801-975-3500
Web site: www.fsa.usda.gov
Recent aerial photos.

U.S. Environmental Protection Agency

Maps on Demand Web site:
www.epa.gov/enviro/html/mod/index.html
Internet site that allows users to generate maps displaying environmental information for most locations in the U.S. Types of information that can be mapped include EPA-regulated facilities, demographic information, roads, and waterbodies. Maps of varying scales can be generated on the site (latitude and longitude), zip code, county, and basin levels. Submit your request and email address, and after a brief wait, you will be able to view your map on-line or download it.

U.S. Geological Survey

USGS Information Services
Box 25286
Denver Federal Center
Denver, CO 80225
Phone: 888-ASK-USGS
Web site: mapping.usgs.gov/
Topographic maps and aerial photos.

VWR Scientific

P.O. Box 626
Bridgeport, NJ 08014
Phone: 800-932-5000; 908-757-4045
Web site: www.vwrsp.com
Glassware, labeling tape, sample vials, lab equipment, incubators, reagents, Whirl-paks.

Wards Natural Science Establishment, Inc.

P.O. Box 92912
Rochester, NY 14692-9012
Phone: 800-962-2660; 716-359-2502
Web site: www.wardsci.com
Alcohol lamps, balances, microscopes, sample trays, goggles, rubber stoppers, autoclaves, spectrophotometers, incubators, petri dishes, sterile pipettes, glassware, educational materials, live and mounted specimens for instruction.

Water Monitoring Equipment & Supply

P.O. Box 344
Seal Harbor, ME 04675
Phone: 207-276-5746
Web site: watermonitoringequip.com
Monitoring equipment: transparency tubes, view scopes, Secchi disks, water samplers, kick nets, sieve buckets.

Wildlife Supply Company

95 Botsford Place
Buffalo, NY 14216
Phone: 800-799-8301
Web site: www.wildco.com
Kick nets, plankton nets, wash buckets, field biological sampling equipment, water bottles.

YSI Incorporated

1725 Brannum Lane
Yellow Springs, Ohio 45387
Phone: 937-767-7241
Web site: www.ysi.com
Electronic water quality monitoring meters, other water quality supplies.

Glossary

Glossary and Acronyms

