# Maryland Stream Wader Volunteer Stream Monitoring Survey

### Metadata:

- Identification\_Information
- Data Quality Information
- Spatial\_Data\_Organization\_Information
- Spatial Reference Information
- Entity and Attribute Information
- Distribution Information
- Metadata Reference Information

#### *Identification\_Information:*

#### Citation:

#### *Citation\_Information:*

Originator: MARYLAND DEPARTMENT OF NATURAL RESOURCE

Originator: MARYLAND BIOLOGICAL STREAM SURVEY Originator: MARYLAND STREAM WADERS PROGRAM

Publication\_Date: 20080530

Title:

Maryland Stream Wader Volunteer Stream Monitoring Survey *Online\_Linkage*: http://www.dnr.state.md.us/streams/streamWaders.asp

#### Description:

#### Abstract:

The Maryland Stream Waders is sponsored by Maryland Department of Natural Resources' (DNR) Monitoring and Non-tidal Assessment Division. The year 2000 was the inaugural effort for this statewide volunteer stream monitoring program, with more than 200 volunteers sampling over 700 sites statewide. The program is now a statewide stream volunteer monitoring an annual activity and an integral part of DNR's professional stream sampling program, the Maryland Biological Stream Survey (MBSS). One important goal of Stream Waders is to increase the density of stream sampling sites beyond the capabilities of DNR staff. During the first round of the MBSS (1995-1997) DNR sampled an average of 7 stream sites per mediumsized watershed (about 80 square miles) and in 2000, thanks to Stream Waders, this number increased to 10. With the help of volunteers like you, we hope to increase this number to more than 25 sites per watershed! Volunteers will collect Benthic macroinvertebrates (aquatic insects, crustaceans, snails, etc.) will be sampled using the same methods and sampling window (March and April) as that used by MBSS crews. Samples will be preserved in the field and identified by DNR benthic taxonomists at the DNR field office in Annapolis.

#### Purpose:

The goals of the Stream Waders Program are: 1) To increase the density of sampling sites for use in stream quality assessments. 2)To educate the local community about the relationship between land use and stream quality. 3) To provide quality assured information on stream quality to state, local, and federal agencies, environmental

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organizations, and others. 4)To improve stream stewardship ethics and encourage
           local action to improve watershed management.
Time_Period_of_Content:
     Time_Period_Information:
           Range_of_Dates/Times:
                Beginning_Date: 20000301
                Ending_Date: Present
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Status:
     Progress: In work
     Maintenance_and_Update_Frequency: Annually
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           East Bounding Coordinate: -75.25543
           North_Bounding_Coordinate: 39.7222
           South_Bounding_Coordinate: 38.01461
Keywords:
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           Theme Keyword: BENTHOS
           Theme_Keyword: WATER QUALITY
           Theme_Keyword: VOLUNTEER MONITORING
           Theme_Keyword: CITIZENS MONITORING
     Place:
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           Place_Keyword: MARYLAND
Access Constraints: None
Use Constraints:
     Use at your own risk
Point_of_Contact:
     Contact_Information:
           Contact Person Primary:
                Contact_Person: Dan Boward
                Contact_Organization: Maryland Department of Natural Resource-MBSS
           Contact Address:
                Address_Type: mailing and physical address
                Address:
                      580 Taylor Avenue, C-2
                City: Annapolis
                State_or_Province: Maryland
                Postal_Code: 21401
                Country: USA
           Contact_Voice_Telephone: (410) 260-8605
           Contact_Electronic_Mail_Address: dboward@dnr.state.md.us
           Hours_of_Service: unknown
           Contact Instructions:
                unavailable
Data_Set_Credit:
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Maryland Department of Natural Resource-Maryland Biological Stream Survey Native\_Data\_Set\_Environment: Microsoft Windows XP Version 5.1 (Build 2600) Service Pack 3; ESRI ArcCatalog

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Spatial\_Data\_Organization\_Information:

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*Spatial\_Reference\_Information:* 

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*Entity\_and\_Attribute\_Information:* 

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## Distribution\_Information: Distributor:

Contact\_Information:

Contact\_Person\_Primary:

Contact\_Person: Dan Boward

Contact\_Organization: Maryland Department of Natural Resources

Contact\_Address:

*Address\_Type:* mailing and physical address

Address:

580 Taylor Avenue, C-2

City: Annapolis

State\_or\_Province: Maryland

Postal\_Code: 21401

Country: USA

Contact\_Voice\_Telephone: 410-260-8605

Contact\_Voice\_Telephone: 410-267-5729

Contact\_Electronic\_Mail\_Address: dboward@dnr.state.md.us

*Hours\_of\_Service:* unavailable

Contact Instructions: unavailable

Resource\_Description: Available upon Request

Distribution\_Liability:

I, the data requestor, agree to acknowledge the Chesapeake Bay Program and any other agencies and institutions as specified by the Chesapeake Bay Program Office as data providers. I agree tocredit the data originators in any publications, reports or presentations generated from this data. I also accept that, although these data have been processed successfully on a computer system at the Chesapeake Bay Program, no warranty expressed or implied is made regarding the accuracy or utility of the data on any other system or for general or scientific purposes, nor shall the act of distribution constitute any such warranty. This disclaimer applies both to individual use of the data and aggregate use with other data. It is strongly recommended that careful attention be paid to the contents of the data documentation file associated with these data. The Chesapeake Bay Program shall not be held liable for improper or incorrect use of the data described and/or contained herein.

Standard\_Order\_Process:

Digital\_Form:

*Digital\_Transfer\_Information:* 

Format\_Name: ASCII

Digital Transfer Option:

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*Metadata\_Reference\_Information:* 

Metadata\_Date: 20100426

Metadata Contact:

Contact Information:

Contact\_Organization\_Primary:

Contact\_Organization: Environmental Protection Agency, Chesapeake Bay

Program

Contact Person: Jacqueline Johnson

Contact\_Position: Living Resources Data Manager/Analyst

Contact Address:

*Address\_Type:* mailing and physical address

Address:

410 Severn Avenue, Suite 109

City: Annapolis

State\_or\_Province: Maryland

Postal\_Code: 21403

Contact\_Voice\_Telephone: 410-267-5729

Contact\_Electronic\_Mail\_Address: jjohnson@cheapeakebay.net

Metadata\_Standard\_Name: FGDC Content Standards for Digital Geospatial Metadata

Metadata\_Standard\_Version: FGDC-STD-001-1998

Metadata\_Time\_Convention: local time Metadata Access Constraints: None

Metadata\_Use\_Constraints:

None

*Metadata\_Security\_Information:* 

Metadata\_Security\_Classification: Unclassified

*Metadata\_Extensions:* 

Online\_Linkage: http://www.esri.com/metadata/esriprof80.html

Profile\_Name: ESRI Metadata Profile

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