

## **FROM THE MOUNTAINS TO THE SEA: GETTING THE WORD OUT ON THE HEALTH OF MARYLAND'S STREAMS**

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### **ABSTRACT**

In 1995, the Maryland Department of Natural Resources' Maryland Biological Stream Survey (MBSS) began monitoring and assessing the health of the State's wadeable streams using a probabilistic approach. To date, about 3,000 sites have been sampled for fish, benthic macroinvertebrates and herpetofauna. Physical habitat, water chemistry and landscape data are also collected at each site. To help fill in the gaps in areas where MBSS crews do not sample, the Maryland Stream Waders volunteer program was implemented in 2000. This volunteer "arm" of the MBSS has engaged and educated about 1,000 citizens and has generated quality assured data from almost 5,000 sites. Since the MBSS and Stream Waders programs use the same field and laboratory methods, both programs are considered seamless. MBSS and Stream Waders results are used in Maryland's Integrated Water Quality Report, watershed assessments, monitoring restoration and protection efforts, documenting distributions of species of greatest conservation need, public education and stewardship programs.

Since the inception of both the MBSS and Stream Waders programs, DNR staff have worked to make these programs as transparent as possible to the public, resource managers, elected officials and other water monitoring professionals and volunteers. For example, data from both programs are presented in a searchable format via the internet. MBSS data are downloadable for use in research projects, environmental assessments and educational activities and all MBSS site property owners are sent reports on the conditions of the stream sampled on their property. A publicly accessible bibliography of MBSS and Stream Waders documents and reports (including several peer-review papers) contains over 200 entries with about 100 in downloadable format. MBSS Opinion surveys are distributed annually to Stream Waders volunteers to enable DNR staff to continually improve the program based on survey responses. Keeping the visibility of Maryland's stream monitoring and assessment programs as high as possible has benefited state water monitoring agencies, decision makers, the public and will help ensure the continued success of these nationally recognized efforts.

### **KEYWORDS**

Maryland, stream, fish, invertebrates, monitoring, assessment, watershed management