

# 2011

**Maryland Streams Symposium  
and  
Mid-Atlantic Volunteer  
Monitoring Conference**



**Carroll County  
Community College**

**Westminster  
Maryland**

## **August 10-13**



**Third Maryland Streams Symposium and Mid-Atlantic Volunteer Monitoring Conference  
August 10-13, 2011; Carroll Community College**

**Wednesday Morning August 10**

7:30-9:00      **Registration/Poster Set-up/Coffee**

Morning Plenary Session I – Auditorium

9:00 – 9:10      **Welcome, Symposium Goals, Charge to Participants**  
*Paul Kazyak, Monitoring and Non-Tidal Assessment Division  
Maryland DNR*

9:10 – 9:15      **Greetings**  
*Faye Pappalardo, President  
Carroll Community College*

9:15 – 9:35      **Maryland's Commitment to Healthy Streams**  
*Frank Dawson, Assistant Secretary for Aquatic Resources  
Maryland DNR*

9:35 – 10:05      **Science and Politics Don't Have to be Like Oil and Water**  
*Chris Trumbauer, Anne Arundel County Councilman and West/Rhode Riverkeeper*

10:05 – 10:45      **Break – Great Hall**

10:45 – 11:15 **Pollution Limits Under Attack in Congress and Court: Why We Must Fight Back**  
*Tom Pelton, Senior Writer for the Chesapeake Bay Foundation, host of "The Environment in Focus" on WYPR public  
radio in Baltimore*

11:15 – 11:30      *Congressman John Sarbanes*

11:30 – 12:00      **Evolution of the Maryland Biological Stream Survey: Three Rounds and 15 Years Later**  
*Ron Klauda, Director, Monitoring and Non-Tidal Assessment Division  
Maryland DNR*

12:00 – 1:00      **Lunch – Great Hall**

Session	<i>Status and Trends: How are Maryland's Streams Doing?</i>	<i>Dam(n) Lessons Learned</i>	<i>Freshwater Mussels</i>	<i>Aquatic Invaders</i>	
<b>Room</b>	<b>Auditorium</b>	<b>K100A</b>	<b>K100B</b>	<b>L287</b>	
<b>Moderator</b>	<b>Mark Southerland (Versar, Inc.)</b>	<b>Jim Thompson (MD DNR)</b>	<b>Matt Ashton (MD DNR)</b>	<b>William Harbold (MD DNR)</b>	
1:00 pm	Maryland Stream, River and Lake Sampling as Part of the National Aquatic Resource Surveys: Current Status and Future Assessments  <i>Ellen Tarquinio [1]</i>	Chesapeake Bay Fish Passage Prioritization  <i>Julie Devers [7]</i>	Human Activities and the Capacity for Native Freshwater Mussels ( <i>Unionidae</i> ) to Mitigate Cultural Eutrophication in the Chesapeake Bay  <i>Daniel E. Spooner [13]</i>	Invasive Species and Maryland DNR  <i>Sarah Widman [19]</i>	
1:20 pm	Status and Trends of Non-tidal Chesapeake Streams and Rivers  <i>Adam Griggs [2]</i>	Video Overview  <i>Jim Thompson [8]</i>	Using Predictive Distribution Models to Find the Dwarf Wedge Mussel in Maryland  <i>Cara A. Campbell [14]</i>	Blue Catfish, The Potomac's Largest Unwelcome Invasive or an Increasingly Popular Sportfish  <i>Mary Groves [20]</i>	
1:40 pm	Status and Trends in the Ecological Condition of Maryland Streams and Rivers: Results of Maryland DNR's Maryland Biological Stream Survey and Long-term Monitoring Programs  <i>Mark Southerland [3]</i>	Designing and Implementing Dam Removal Projects in the Context of the Regulatory Climate: The Simkins Dam Removal Case Study  <i>Mary Andrews [9]</i>	Freshwater Mussel Survey of the Potomac River Mainstem  <i>James D. Cummins [15]</i>	Ongoing Efforts to Control the Invasive Northern Snakehead  <i>Josh Newhard [21]</i>	
2:00 pm	Streams in Maryland's National Parks: How Are They Doing?  <i>Marian Norris [4]</i>	Flow and Suspended-Sediment Monitoring at Three Stream gages on the Patapsco River, Maryland, October 2010 to March 2011  <i>William Banks [10]</i>	Freshwater Mussel Conservation in Virginia—Using Propagation as a Recovery Tool  <i>Brian T. Watson [16]</i>	Hood College Student-Faculty Research: Ecology, Physiology and Genetics of Native and Invasive Maryland Orconectes Species  <i>Susan Carney [22]</i>	
2:20 pm	Just What Is the Condition of Baltimore County Streams?  <i>Dennis Genito [5]</i>	Geomorphic Monitoring of the Patapsco River Following the Removal of the Simkins Dam, Patapsco River, Maryland  <i>Graham Boardman [11]</i>	Experimental Stocking of American Eels in the Susquehanna River Watershed  <i>Julie Devers [17]</i>	Management Strategies for Water Chestnut ( <i>Trapa natans</i> ): A Historical Perspective  <i>Mark Lewandowski [23]</i>	
2:40 pm	Montgomery County Streams – Change and Recovery  <i>Jennifer St. John [6]</i>	Patapsco River Dam Removal Study: Assessing Changes in American Eel Distribution and Aquatic Communities  <i>William Harbold [12]</i>	How a State-Wide Stream Survey Can Aid in Understanding Freshwater Mussel (Bivalvia: <i>Unionidae</i> ) Ecology: Examples of Utility and Limitations from Maryland  <i>Matthew J. Ashton [18]</i>		
<b>3:00-3:30 pm</b>	<b>Poster Break (authors in attendance)</b>				

Session	<i>Stream Biodiversity</i>	<i>High Quality Streams</i>	<i>Urban Streams I</i>	<i>Sustainability and Healthy Watersheds</i>	<i>Film Forum</i>
Room	Auditorium	K100A	K100B	L287	M157
Moderator	Scott Stranko (MD DNR)	Andy Becker (MD DNR)	Ken Belt (USFS) and Ed Doheny (USGS)	Paul Kazyak (MD DNR)	Jenny Mulhern (MD DNR)
3:30 pm	Biodiversity Conservation in Maryland: What makes the Free State Naturally Great!  <i>Dave Brinker [24]</i>	EPA's Healthy Watersheds Initiative: A Systems-based Construct for Protecting Aquatic Ecosystems  <i>Laura Gabanski [30]</i>	Pilot Testing of Real-Time Nitrate and Conductivity Sensors in an Urban Watershed  <i>Jason Ver Hoef [35]</i>	Maryland Forests and Streams – Key Challenges for Sustainability in a Rapidly Changing World  <i>Dan Fiscus [41]</i>	
3:50 pm	Physiological Tolerance and Behavioral Preferences of Freshwater Mussels: Consequences for Mussel Biodiversity in a Changing Environment  <i>Heather S. Galbraith [25]</i>	Balancing Our Investment in the Chesapeake: The Importance of Maintaining Healthy Watersheds  <i>Mark Bryer [31]</i>	Applications of Real-time Water Quality to Identify Episodic Pollution Events in Urban Streams in the Washington, D.C. Metropolitan Area  <i>Joe Bell [36]</i>	Urbanization and the Future of Aquatic Biodiversity in Maryland  <i>Bob Hilderbrand [42]</i>	
4:10 pm	First Probabilistic Survey of Stream Salamanders in Maryland  <i>Mark Southerland [26]</i>	Incorporation of Maryland's Current Antidegradation Implementation Procedures into the Approval or Permitting Framework  <i>Angel Valdez [32]</i>	Introducing the Baltimore City Stewardship Mapping and Assessment Project  <i>Michele Romolini [37]</i>	Beyond Urbanization: Seeing into the Future of Maryland Streams  <i>Paul Kazyak [43]</i>	
4:30 pm	Maryland's Crawdads – their Status, Distribution, and Conservation  <i>Jay Kilian [27]</i>	Virginia Healthy Waters Initiative  <i>Todd Janeski [33]</i>	Understanding the Implications of Using Indices to Detect Biological Responses in Streams  <i>Matt Baker [38]</i>	Forest Buffers: How Fast do their Functions Develop?  <i>Anne Hariston-Strang [44]</i>	
4:50 pm	From Ablabesmyia to Zygoptera : the Incredible Diversity of Maryland's Freshwater Macroinvertebrates  <i>Dan Boward [28]</i>	Frederick County Stream Protection Program  <i>Shannon Moore [34]</i>	Nutrient and Sediment Sources, Transport, Retention, and Effects of Best Management Practices in the Urban Difficult Run Watershed, Virginia  <i>Greg Noe [39]</i>	Updating Maryland's GreenPrint Map  <i>Kevin J. Coyne [45]</i>	
5:10 pm	Biodiversity of Maryland's Freshwater Fishes  <i>Rich Raesly [29]</i>		Tracking Nonpoint Source Nitrogen Pollution in Human-impacted Watersheds  <i>Sujay Kaushal [40]</i>		
<b>5:30 pm</b>	<b>Adjourn</b>				

# Thursday Morning August 11

8:00-11:00 Registration and Coffee/Pastries

Session	<i>Brook Trout Status, Ecology and Management</i>	<i>Climate Change in Maryland: It's More Than Sea Level Rise</i>	<i>The Chesapeake Phase II Watershed Implementation Plan</i>	<i>Contributed Papers -Stream Critters and Beyond!</i>	
<b>Room</b>	<b>Auditorium</b>	<b>K100A</b>	<b>K100B</b>	<b>L287</b>	<b>M157</b>
<b>Moderator</b>	<b>Bob Hilderbrand (University of Maryland)</b>	<b>Ron Klauda (MD DNR)</b>	<b>Claudia Donegan (MD DNR)</b>	<b>Beth Franks (Versar, Inc.)</b>	
8:30 am	Brook Trout in Maryland, Five Years Down the Road Since Implementation of the Fisheries Management Plan  <i>Alan Hefi [46]</i>	Climate Change Adaptation in Maryland Watersheds: A Strategy for Resilience  <i>Markus Griswold [52]</i>	The Chesapeake Bay TMDL and the Maryland Watershed Implementation Plan - an Overview and Panel Discussion  <i>Richard Eskin [57]</i>	Culvert Designs for Fish Passage in Pennsylvania  <i>Dave Spotts [58]</i>	
8:50 am	A Revisitation of Maryland Brook Trout Genetics  <i>Ray Morgan [47]</i>	It's Hard to Make Predictions, Especially about the Future: Possible Climate Change Impacts on Maryland Streams  <i>Andrew Miller [53]</i>		The Growing Scientific, Education, and Conservation Impact of FrogWatch USA  <i>Rachel Gauza [59]</i>	
9:10 am	Brook Trout Declines with Land Cover and Temperature Changes in Maryland  <i>Scott Stranko [48]</i>	The USGS Streamflow-Monitoring Network in Maryland – What Can It Tell Us about Climate Change?  <i>Jonathan Dillow [54]</i>		Year One (2010) of the Maryland Amphibian and Reptile Atlas  <i>Heather Cunningham [60]</i>	
9:30 am	Life History of Brook Trout in Western Maryland  <i>David Kazyak [49]</i>	What Are Some Management Steps for Addressing the Impacts of Climate Change on Fish Species?  <i>Nancy Butowski [55]</i>	Panel Discussion with: <i>Julie Pippel – Wash. County;</i> <i>Kim Burgess – Balto. City;</i> <i>Rupert Rossetti – Cecil County;</i> <i>Bill Wolinski – Talbot County</i>	Adult and Larval Caddisfly (Trichoptera) Taxa Richness Indicate Regional Processes Limit In-stream Larval Richness and Colonization Potential of Urban Headwater Streams  <i>Robert Smith [61]</i>	
9:50 am	Brook Trout Population Responses to Restrictive Fishing Regulations in the Savage River Watershed  <i>Bob Hilderbrand [50]</i>	Stream Fish Colonization and Extinction in Shenandoah National Park  <i>Nathaniel (Than) P. Hitt [56]</i>		Benthic Invertebrates as Vectors of Fish Pathogens in Aquatic Ecosystems  <i>Heather L. Walsh [62]</i>	
10:10 am	Conservation Genetics and Genomics of Brook Trout ( <i>Salvelinus fontinalis</i> ) Populations: Identification of the Functional Unit of Management in the Chesapeake Bay System  <i>Tim King [51]</i>			Taxonomic Data Quality Control for the Maryland Biological Stream Survey, 1995-2009  <i>Erik W. Leppo [63]</i>	
<b>10:30-11:00 am</b>	<b>Poster Break (authors in attendance)</b>				
<b>11:00-11:30 am</b>	<b>Welcome to Volunteers and Morning Plenary Session - Peter Bergstrom – NOAA - Promoting Stewardship with Volunteer Monitoring</b>				
<b>11:30-12:30</b>	<p><b>Lunch (pre-made sandwiches)</b></p> <p><b>Presentation – Riparian Buffer Plantings: Trials and Successes</b> <i>Brandon Green, Kelly Habicht and Reed Portney, Venturing Crew 202 Members</i></p> <p>This talk will be a lighthearted look at the riparian buffer plantings of Boy Scout Venturing Crew 202 over the last dozen years. Key lessons learned will be summarized and implications for other volunteer groups discussed. [NOTE: Crew 202 has arguably planted more trees than any other all-volunteer group in the entire Chesapeake Bay watershed, and has won numerous state and national awards for its environmental efforts. Crew members are also volunteering at this symposium, feel free to chat with them as they perform various support roles]</p>				

## Thursday Afternoon August 11

Session	<i>Marcellus Shale I: Science and Policy</i>	<i>Say Hello to my TMDL! A Look at Freshwater Regulations in Maryland</i>	<i>Volunteer Monitoring Success Stories</i>	<i>Contributed Papers – Nutrients</i>	<i>Film Forum</i>
Room	Auditorium	K100A	K100B	L287	M157
Moderator	Jennifer Fulton (US EPA)	Greg Sandi (MDE)	Ginger North (Delaware Nature Society)	Beth Franks (Versar, Inc.)	Jenny Mulhern (MD DNR)
12:30 pm	<i>TBA</i>  <i>David Kargbo [64]</i>	Maryland's Ion Monitoring Plan: Supporting Water Quality Criteria Development for Chloride Concentrations  <i>Adam Rettig [68]</i>	Oyster Gardening: A Volunteer Success Story  <i>EJ Chalabala [73]</i>	Major Sources and Transport Pathways for Nitrogen and Phosphorus to Chesapeake Bay and its Tributaries  <i>Scott W. Ator [78]</i>	
12:50 pm	Geology of the Marcellus Shale in Maryland  <i>David K. Brezinski [65]</i>	Watershed-Based Monitoring Network Design for Chlorides and Sulfates  <i>Allison O'Hanlon [69]</i>	The Delaware Nature Society's Riparian Habitat Assessment  <i>Kristen Travers [74]</i>	Nodal Point Pollution: Changing the Paradigm for Chesapeake Bay Restoration  <i>Andrew Muller [79]</i>	
1:10 pm	An In-Depth Look at Water Chemistry in the Upper Monongahela River Basin  <i>Paul Ziemkiewicz [66]</i>	The Integrated Report (aka 303d/305b List) of Surface Water Quality Calling It as We See It.  <i>Matt Stover [70]</i>	<i>RiverTrends: Using Volunteer Data for Outreach on Water Quality Issues and Solutions</i>  <i>Anna Mathis [75]</i>	Coastal Bays Non-tidal Nutrient Indicators & Thresholds for Use in an Annual Report Card  <i>Carol Cain [80]</i>	
1:30 pm	The Maryland Marcellus Shale Executive Order  <i>Brigid Kenney [67]</i>	Incorporation of Maryland's Current Antidegradation Implementation Procedures into the Approval or Permitting Framework  <i>Angel Valdez [71]</i>	Maryland Stream Waders: Eleven Years of Success!  <i>Dan Boward [76]</i>	Combination of a Stressor-Response Model with a Conditional Probability Analysis Approach for Developing Candidate Criteria from MBSS Data  <i>John F. Paul [81]</i>	
1:50 pm		Maryland's Synoptic Survey  <i>Quentin Forrest [72]</i>	Stream Research and Community Outreach Using Volunteers  <i>Lindsay Hollister [77]</i>		
2:10 pm					
2:30-3:00 pm					

<b>Session</b>	<i>Marcellus Shale II: Assessing our Waters</i>	<i>Contributed Papers – Urban Streams II</i>	<i>Contributed Papers – Contaminants and Human Health</i>		
<b>Room</b>	<b>Auditorium</b>	<b>K100A</b>	<b>K100B</b>	<b>L287</b>	<b>M157</b>
<b>Moderator</b>	<b>Bill Richardson (US EPA)</b>	<b>Ginny Rogers (Versar, Inc.)</b>	<b>Patrick Graves (MD DNR)</b>		
3:00 pm	Water Quality Monitoring in Pennsylvania’s Marcellus Shale Field – Trying to Stay “Ahead of the Curve”  <i>Tony Shaw [82]</i>	Assessing the Ecological and Human Health Status of Baltimore’s Inner Harbor  <i>Caroline Wicks [87]</i>	Clean Water, Healthy Families Campaign  <i>Terry Cummings [92]</i>		
3:20 pm	Maryland Assesses Baseline Water Quality Conditions in Streams near Potential Marcellus Shale Drilling Locations  <i>Tony Prochaska [83]</i>	An Approach for Monitoring Biological Response to an Urban Stream Restoration Including an Evaluation of the Relationship between Geomorphology and Biological Communities  <i>Sean Sipple and Kate Estler [88]</i>	Illicit Discharges – Hidden Polluters in Maryland Waters  <i>Lori Lilly [93]</i>		
3:40 pm	Marcellus Monitoring  <i>Julie Vastine [84]</i>	Mitigating the Effects of Urbanization on a Naturalized Population of Brown Trout ( <i>Salmo trutta</i> ) in a Tributary of the Anacostia River in the Washington, D.C. Metropolitan Area  <i>Mitch Keiler [89]</i>	Contaminants of Emerging Concern: Chemical and Biological Effects Monitoring  <i>Vicki Blazer [94]</i>		
4:00 pm	Monongahela River QUEST: A Collaborative Approach to Monitoring Water Quality in the Mon River Basin  <i>Melissa O’Neal [85]</i>	An Altered State: Mitigating the Effects of Urbanization on Aquatic Ecosystems  <i>Mitch Keiler [90]</i>	The Use of Scent Trained Canines for Illicit Discharge Detection in Storm Water  <i>Scott Reynolds [95]</i>		
4:20 pm	Susquehanna River Basin Commission Marcellus Monitoring  <i>Matthew Shank [86]</i>	Comparing the Fish and Benthic Macroinvertebrate Diversity of Restored Urban Streams to Reference Streams  <i>Scott Stranko [91]</i>			
4:40 pm					
<b>5:10 pm</b>	<b>Adjourn</b>				
<b>6:00-9:00 pm</b>	<b>Social/Cookout at Carroll County Farm Museum - BYOB</b>				

**Friday Morning**

**August 12**

8:00 – 8:30 Registration and Coffee/Pastries

8:30 – 9:00 Morning Plenary Session – **Creating Change in your Watershed: One Person at a Time**  
*Ned Tillman, Author of “The Chesapeake Watershed: A Sense of Place and a Call to Action”, President - Sustainable Growth, LLC; Chair of the Sustainability Board of Howard County, MD*

9:00 – 9:30 Poster Break (authors in attendance)

Session	<i>Stream and Watershed Education I</i>	<i>Hands On in the Bay</i>	<i>Money Behind Water Quality Initiatives</i>	<i>Stream Geomorphology</i>	<i>Mattawoman Creek: A Fragile Gem</i>	<i>Film Forum</i>
Room	Auditorium	K100A	K100B	L287	M157	K116
Moderator	Sonja Schmitz (Community College of Baltimore County)	Larry Merrill (US EPA)	Jen Raulin (MD DNR)	Mike Pieper (KCI, Inc.)	Jim Uphoff (MD DNR)	Jenny Mulhern (MD DNR)
9:30 am	Using the Mapping-Our-Streams-with-FieldScope unit to Expand Your Stream Investigations in the Chesapeake Bay Watershed  <i>Cassie Doty [96]</i>	The Spirit of Growing Our Chesapeake Bay Partnership: The Continued Evolution of the Chesapeake Bay Program Partnership's Long term Water Quality Monitoring Program  <i>Peter Tango [101]</i>	Advancing Watershed Restoration at the Local Level  <i>Jennifer Raulin [105]</i>	Applying Fluvial Geomorphic Monitoring Techniques to Evaluate Stream Restoration Project Success in the Red Hill Branch Subwatershed  <i>Colin Hill [108]</i>	Evaluating Anadromous Spawning Habitat Changes in a Changing Landscape  <i>Margaret McGinty [111]</i>	
9:50 am	Chesapeake Exploration: Investigate the Bay Watershed in Real-time with NOAA's Online Curriculum  <i>Kevin Schabow [97]</i>	Citizen Involvement and the Chesapeake Bay Executive Order  <i>Michelle Ryan [102]</i>	Water-related Funding Opportunities Provided by the National Fish and Wildlife Foundation's Chesapeake Bay Stewardship Fund  <i>Mandy Chesnutt [106]</i>	The Stream Functions Pyramid: A Conceptual Model for Setting Goals and Evaluating the Functional Improvement of Stream Restoration Projects  <i>Rich Starr [109]</i>	Migrating to Mattawoman Creek— Or Not: Ichthyoplankton Surveys of Anadromous Fish Spawning in the Nontidal River  <i>Jim Long [112]</i>	
10:10 am	Students in the Community as Environmental Stewards and Citizen Scientists: CCBC Bay Watershed Educational Training Project.  <i>Sonja Schmitz [98]</i>	Choose Clean Water - Engaging Local Organizations  <i>Ryan Ewing [103]</i>	Water-related Funding Opportunities Provided by the Chesapeake Bay Trust  <i>Kacey Wetzel [107]</i>	Fish Passage Barriers and Mitigation Options  <i>Kathy Hoverman [110]</i>	Interpretation of a Ten-Year Record of Discrete and Continuous Water-Quality Data for a Rapidly-Urbanizing Coastal Plain Watershed  <i>Jeffrey G. Chanat [113]</i>	
10:30 am	TBA  <i>Karen Anderson [99]</i>	Chesapeake Commons Database  <i>John Dawes [104]</i>			Development, Stressors, Habitat and Fish Community Changes in Mattawoman Creek  <i>Jim Uphoff [114]</i>	
10:50 am	A Virtual Stream Sampler  <i>Neil Gilles [100]</i>				The Role of Mattawoman Creek in the Largemouth Bass Fishery of the Potomac River  <i>Joe Love [115]</i>	
11:10 am						

11:30 – 12:30 Lunch (*Hot pasta dish*)  
Cafeteria

Presentation – Visualizing Fluvial Geomorphology: A Multimedia Phenomenon- Speaker TBA  
Great Hall

**Friday Afternoon August 12**

Session	Stream and Watershed Education II	Making Your Voice Heard	Volunteer and Professional Monitors Unite!	Stream Water Temperature	
<b>Room</b>	<b>Auditorium</b>	<b>K100A</b>	<b>K100B</b>	<b>L287</b>	
<b>Moderator</b>	<b>Sonja Schmitz (Community College of Baltimore County)</b>	<b>Sara Weglein (MD DNR)</b>	<b>James Beckley (VA DEQ)</b>	<b>Tony Prochaska (MD DNR)</b>	
12:30 pm	RiverWebs: A Documentary film about Life, Death, Science, and Streams  <i>Keith Williams [116]</i>	Maryland Stream Waders- Providing the Mega-phone  <i>Sara Weglein [121]</i>	TBA  <i>James Beckley [125]</i>	Maryland's Temperature Criteria  <i>Adam Rettig [130]</i>	
12:50 pm	The View Below: Using Creek Snorkeling to Connect People with Rivers  <i>Keith Williams [117]</i>	Mattawoman Matters  <i>Bonnie Bick [122]</i>	TMDLs, Pollution Trading and the Need for Volunteer Monitoring  <i>Michael R Helfrich [126]</i>	Thermal Regimes of Maryland's Non-Tidal Streams  <i>Bob Hilderbrand [131]</i>	
1:10 pm	Volunteering: What you can do Beyond Monitoring - Join TEAM DNR!  <i>Amy Henry [118]</i>	How to Create Change: Strategies and Very Cool Tips for Making a Difference  <i>Paul Kazyak [123]</i>	Partnering with Watershed Organizations to Produce Tributary-Specific Report Cards  <i>Sara Powell [127]</i>	Improving the Thermal Protection for Maryland Streams: Getting the Most Out of Designated Uses  <i>Michael Kasbiwagi [132]</i>	
1:30 pm	Discovery, Fun and Watershed Education – Right in Your Own Backyard!  <i>Betsy McMillion [119]</i>	How The MBSS Uses the Internet to Spread the Word  <i>Luke Roberson [124]</i>	Partnership in Stream Monitoring – Loudon County, Virginia  <i>David Ward [128]</i>	Tailwater trout Management in Maryland. Where did all the cold water go?  <i>Charlie Gougeon [133]</i>	
1:50 pm	Observations in Action: An Elementary School Teacher's Experience with the Maryland Biological Stream Survey  <i>Lauren Catts [120]</i>		Meeting Community Needs: Developing Partnerships Between Local Governments and Volunteer Water Monitors  <i>Chris French [129]</i>	Thermal Regime and Stream Characteristics in the Prettyboy Reservoir Watershed  <i>Dennis Genito [134]</i>	
2:30 – 3:00 pm	<b>Break</b>				
<b>Session</b>	<b>Moving Forward Together – Panel Discussion on Effectively Using Volunteers' Contributions in the Mid-Atlantic</b>				<b>Film Forum</b>
<b>Room</b>	<b>Auditorium</b>	<b>K100A</b>	<b>K100B</b>	<b>L287</b>	<b>M157</b>
<b>Moderator</b>	<b>Chris French (Alliance for the Chesapeake Bay)</b>				<b>Jenny Mulhern (MD DNR)</b>
3:00 pm	James Beckley (VA), (TBA; MD), Chesapeake Bay Program, NGO representative				
4:30 pm	Adjourn				