



# THE ABSTRACT

*A Monthly Update from the Scientific and Technical Advisory Committee*

**November 2015**

*In scientific journals, the abstract summarizes the most important qualitative and quantitative items from an article, inviting readers to further investigate the topic(s). The Abstract will serve a similar purpose. This monthly newsletter will outline the most important updates for the Chesapeake Bay Program's Scientific and Technical Advisory Committee. It will invite readers to investigate the committee, its members, its findings and its on-going work. We hope you will enjoy reading The Abstract, and will find the newsletter both informative and inviting.*

## **Recent STAC News**

### **December 2015 STAC Meeting**

**December 8-9, 2015**

**O'Callaghan Hotel – Annapolis, MD**

STAC staff is happy to announce that the December 8-9 quarterly meeting will take place at the O'Callaghan Hotel in Annapolis, MD. STAC members should come prepared to continue the discussion on enhancing STAC's effectiveness and follow-up with other outcomes from the September STAC retreat. This will be the first meeting that Lisa Wainger (UMCES) and Brian Benham (VT) officially take on their new roles as STAC Chair and Vice Chair, respectively. The September retreat produced five priority science issues, which Wainger and the Executive Board (EB) have worked to incorporate in the December agenda. STAC will also continue working with the Chesapeake Bay Program (CBP) to increase involvement with the Scientific, Technical Assessment & Reporting (STAR) Team, Goal Implementation Teams (GITs), and workgroups.

For more information regarding the December 8-9 STAC quarterly meeting, please follow this link: [http://www.chesapeake.org/stac/meeting.php?activity\\_id=242](http://www.chesapeake.org/stac/meeting.php?activity_id=242). We look forward to seeing everyone in a few weeks.

### **Chesapeake Executive Council (EC) Response to STAC's 2015 Annual Report and Recommendations**

**October 30, 2015**

STAC received a response from the EC regarding STAC's 2015 Annual Report and Recommendations. The response was distributed to Management Board (MB) members on October 30<sup>th</sup>. As many may recall, former STAC Chair, Kirk Havens (VIMS) drafted the annual

letter to the EC on behalf of STAC. The letter incorporated STAC-suggested updates, key upcoming issues the EC should prepare for, and key overarching issues to be aware of. The letter from Principals Staff Committee (PSC) Chair, Molly Ward (Virginia Office of Natural Resources), signified the Executive Council's reliance upon STAC to provide sound scientific and technical advice and guidance. Ward mentioned that all of STAC's recommendations have not received action yet, but many have been moved forward. Specifically, the Partnership is currently developing a new Building and Sustaining Integrated Networks (BASINs) report to address STAC's recommendations for increased support for observation-based assessments. In addition, Ward noted that the position of Climate Change Coordinator was filled to guide the Partners in assessing how future changes may affect the sustainability of on-the-ground restoration activities. Ward assigned the CBP MB to work with STAC on the additional recommendations. The full EC response letter can be accessed at the following link: [http://www.chesapeake.org/pubs/348\\_Ward2015.pdf](http://www.chesapeake.org/pubs/348_Ward2015.pdf).

### **Updates and Next Steps in the Partnership's Continued Implementation of the Basinwide Best Management Practices Verification Framework**

On October 20<sup>th</sup>, Rich Batiuk (EPA) distributed an email to the CBP Best Management Practices (BMPs) Verification Committee Members. Batiuk's email provided updates and next steps for the Partnership's continued implementation of the Basinwide BMP Verification Framework. In preparation for a STAC update at the March 2016 quarterly meeting, regarding EPA's feedback to the jurisdictions and their revised verification plans, members should remain updated and aware of these next steps. Below is a summary of that email, which STAC members should review.

Batiuk mentioned that the CBP Partnership's Independent BMP Verification Review Panel issued its final report to the Partnership on September 21<sup>st</sup>. The report is accessible online and documents the 3-year history of the Panel's work with the Partnership. In addition, Dana York (Green Earth Connection), CBP Verification Review Panel Chair, briefed MB members and the PSC on the final findings and recommendations of the Panel at their September and October meetings. Batiuk also included an update on the process and schedule for EPA's review and approval of the jurisdictions' revised BMP verification program plans. The schedule/process includes:

- The jurisdictions' revised BMP verification program plans are due to be submitted to EPA by Monday, November 16<sup>th</sup>.
- Through December, EPA will have its teams of sector experts and state Watershed Implementation Plan (WIP) coordinators review each of the revised plans with respect to how they addressed the comments previously provided by the BMP Verification Review Panel, the Partnership's six sector workgroup coordinators, and EPA on the initial draft plans submitted by the jurisdictions back at the end of June.
- Following review by Shawn Garvin (EPA) and his Region 3 Chesapeake Bay senior managers in the first half of January, Garvin will communicate EPA's decisions individually to each jurisdiction verbally and then in writing the week of January 18<sup>th</sup>.
- After notifying of the seven jurisdictions, EPA's decisions will be widely communicated within the Partnership and on-line through the Partnership's web site.

STAC members are encouraged to check the CBP Partnership's BMP Verification webpage, [http://www.chesapeakebay.net/about/programs/bmp/additional\\_resources](http://www.chesapeakebay.net/about/programs/bmp/additional_resources), to view revised BMP Verification Program Plans.

For more questions or concerns on the status of the Partnership with continued implementation of the Basinwide BMP Verification Framework, contact Batiuk at [batiuk.richard@epa.gov](mailto:batiuk.richard@epa.gov) or David Wood (CRC) at [wood.david@epa.gov](mailto:wood.david@epa.gov).

### **Upcoming STAC Quarterly Meetings**

- **December 2015 STAC Quarterly Meeting**
  - **Location:** O'Callaghan Hotel - Annapolis, MD
  - **When:** December 8-9, 2015
  - **Details:** STAC will hold its third meeting of the fiscal year 2015. For more details and a draft agenda, please visit STAC's website.
  
- **2016 STAC Quarterly Meeting Dates**
  - March 15-16, 2016
  - June 7-8, 2016
  - September 13-14, 2016
  - December 6-7, 2016

### **Scientific Issues for STAC Discussion**

STAC Staff would like to hear from you on emerging scientific issues for (1) inclusion in the newsletter, (2) discussion at future STAC meetings, and/or (3) other CBP-related meetings.

- **Current STAC Suggested Topics (source: volunteer survey)**
  - Stream restoration effectiveness
  - Coastal acidification
  - Engagement in BMP verification activities
  - Conowingo research discussion
  - Ongoing climate change in the Chesapeake Bay watershed
  
- **New Topics from the STAC Retreat**
  - Climate change and its effect on restoration goals and actions
  - Adaptive management, including promoting innovation and addressing uncertainty
  - Assessing multiple stressors on living resources
  - Human dimensions, including improving communication of benefits
  - Emerging issues & potential for innovation in nutrient management

Please submit additional suggestions to STAC staff, Renee Kelly at ([KellyR@si.edu](mailto:KellyR@si.edu)).

## On the Horizon

- **STAC Fiscal Year 2015 (FY2015) Workshops**

STAC Staff is in the process of planning and scheduling several workshops that will occur throughout spring 2016. Below you will find tentative dates for those upcoming workshops. STAC staff will continue to update the membership when dates and details become finalized. For more information, contact STAC staff, Rachel Dixon (CRC) at [dixonra@si.edu](mailto:dixonra@si.edu).

- Assessing Uncertainty in the CBP Modeling System – **February 1-2, 2016**
- Conowingo Infill Influence on Chesapeake Water Quality – **January 13-14, 2016**
- The Development of Standardized Climate Projections for Use in Chesapeake Bay Program Assessments – **TBD**
- Comparison of Shallow Water Models for Use in Supporting Chesapeake Bay Management Decision-making – **TBD**
- Optimization for Total Maximum Daily Load (TMDL) Implementation Planning – **February 17-18, 2016**
- Enhancing Capacity to Support the Chesapeake Agreement Outcome through Increased Integration of Regional Science and Management Efforts – **TBD**
- Integrating and Leveraging Monitoring Networks to Support the Assessment of Outcomes in the New Bay Agreement – **April 2016**

- **STAC Reports**

- Re-plumbing the Chesapeake Bay Watershed: Improving Roadside Ditch Management to Meet TMDL Water Quality Goals
- Evaluating Proprietary Best Management Practices (BMPs): Is it time for a State, Regional, or National Program?
- Comparison of Shallow Water Models for Use in Supporting Chesapeake Bay Management Decision-making

- **CBP Partnership-requested STAC-sponsored independent scientific peer reviews**

- 2015 Chesapeake Bay Criteria Addendum
- Proposed revised James River chlorophyll *a* water quality criteria
- Application of Weighted Regressions on Time, Discharge, and Season (WRTDS) to watershed WQ trend analysis and explanations and General Additive Models (GAMs) to estuarine WQ trend analysis and explanations
- Chesapeake Bay Scenario Builder
- Phase 6 Chesapeake Bay Watershed Model
- Chesapeake Bay Water Quality/Sediment Transport Model (WQSTM)
- Approach being taken to factor climate change considerations into the 2017 Chesapeake Bay TMDL Midpoint Assessment

## *Key Events*

- **November 2015 Trading and Offsets Workgroup Call**  
**Date:** November 18, 2015  
**Time:** 10:00 a.m. – 12:00 p.m.  
**Details:** <http://www.chesapeakebay.net/calendar/event/22347/>
- **November 2015 Joint Data Integrity and Integrated Monitoring Networks Workgroups Meeting**  
**Date:** November 18, 2015  
**Time:** 10:00 a.m. – 3:00 p.m.  
**Details:** <http://www.chesapeakebay.net/calendar/event/23027/>
- **November 2015 Agriculture Workgroup Conference Call**  
**Date:** November 19, 2015  
**Time:** 10:00 a.m. – 12:00 p.m.  
**Details:** <http://www.chesapeakebay.net/calendar/event/22599/>
- **November 2015 Data Integrity Meeting**  
**Date:** November 19, 2015  
**Time:** 10:00 a.m. – 3:00 p.m.  
**Details:** <http://www.chesapeakebay.net/calendar/event/23027/>
- **November 2015 Citizens Advisory Committee Quarterly Meeting**  
**Date:** November 19-20, 2015  
**Time:** 11:00 a.m. – 5:30 p.m. (Th) and 8:00 a.m. – 12:30 p.m. (F)  
**Details:** <http://www.chesapeakebay.net/calendar/event/22438/>
- **November 2015 Wetlands Workgroup Meeting**  
**Date:** November 19, 2015  
**Time:** 1:00 p.m. – 3:00 p.m.  
**Details:** <http://www.chesapeakebay.net/calendar/event/23214/>
- **November 2015 Climate Change Workgroup Meeting**  
**Date:** November 20, 2015  
**Time:** 10:00 a.m. – 2:00 p.m.  
**Details:** <http://www.chesapeakebay.net/calendar/event/23201/>
- **November 2015 Fostering Chesapeake Stewardship Coordination Meeting**  
**Date:** November 30, 2015  
**Time:** 12:30 p.m. – 2:00 p.m.  
**Details:** <http://www.chesapeakebay.net/calendar/event/22804/>

\*Please see the Chesapeake Bay Program Calendar for more specific event times and call-in information: <http://www.chesapeakebay.net/calendar>.

## *STAR Updates*

STAR is continuing to work with the GITs on understanding the science support needs identified in the Bay Program's management strategies (MS). The most recent STAR meeting was held on October 22<sup>nd</sup>. The goal of the meeting was focused on discussing the current efforts and needs of the Climate Change workgroup and how STAR and STAC can help support the work outlined in the two-year workplans for Adaptation and Monitoring & Assessment. During the meeting Mark Bennett (USGS, STAR Co-Chair) provided an update on efforts of the Water Quality GIT and the Modeling Workgroup to address the impacts of climate change in the 2017 Mid-Point Assessment, including expected workshops. Climate Change Coordinator, Zoe Johnson (NOAA-CBPO) then reviewed the draft Climate Resiliency workplan and highlighted opportunities for STAR and STAC support. Johnson reported one of the highest priority key actions, included in the workplan, is the development of a science-based framework to engage one-on-one with GITs to identify, assess, evaluate and revise, as necessary, climate-related elements of individual management strategies. GIT funding was awarded for the development of a Climate Resiliency Analysis and Decision-Making matrix and implementation methodology to analyze climate-related factors for 24-independent MS.

STAC will engage in a discussion with Johnson at the December 2015 STAC quarterly meeting to further discuss prioritizing climate change impacts and action strategies. STAC and STAR leadership also agreed that the best way to streamline the science support for the GITs would be for STAR to gather information on the research, monitoring, assessment, indicators, and modeling needs and compile and synthesize that information, through collaboration with STAC, and work with GITs to prioritize science needs. A STAR representative will present those immediate science needs and participate in an open dialogue with STAC to further prioritization.

The next STAR meeting is scheduled for December 3<sup>rd</sup>. If you have any questions regarding STAR activities, please contact STAR Coordinator, Peter Tango at [ptango@chesapeakebay.net](mailto:ptango@chesapeakebay.net).

## *GIT Updates*

**\*The following updates are provided by the Chesapeake Bay Program. Some GITs do not have recent updates to provide at this time.**

### **Sustainable Fisheries Goal Implementation Team (GIT 1)**

The Sustainable Fisheries GIT submitted their blue crab, oyster, forage, and fish habitat workplan drafts to the CBP after meeting with individual workgroups and task groups to discuss the performance goals and incremental actions needed to achieve these goals within the two year time frame.

On October 22<sup>nd</sup>, the NOAA Chesapeake Bay Office and Sustainable Fisheries GIT staff hosted the workshop on cownose rays which functioned to convene scientific experts, fisheries managers, and interested members of the public to discuss the latest research on cownose rays (*Rhinoptera bonasus*). Topics included cownose ray life history, fishing efforts, ecosystem interactions, and population dynamics. The Sustainable Fisheries GIT is currently drafting a report based on information shared at the workshop.

In addition, a literature review and analysis project on fish habitat has been initiated with Tetrattech. GIT staff and Fish Habitat Action Team members identified species which were lacking comprehensive fish habitat analysis for this project. Tetrattech will compile information on habitat requirements, habitat functions, and threats or stressors to those habitats for the identified species in a literature review. This project is scheduled to be complete by December 31, 2015.

Finally, the Sustainable Fisheries GIT will be hosting their semi-annual meeting with the full GIT in December. The meeting will focus on reviewing oyster restoration progress, blue crab research, forage indicator study and other topics. Information for this meeting can be found here: <http://www.chesapeakebay.net/calendar/event/23179>.

More information on the Fisheries GIT can be provided by Bruce Vogt (NOAA) at [bruce.vogt@noaa.gov](mailto:bruce.vogt@noaa.gov).

### **Habitat Goal Implementation Team (GIT 2)**

The Habitat GIT held its biannual meeting on October 14<sup>th</sup> at the CBP Fish Shack in Annapolis, MD. The Habitat GIT shared draft workplans and new management tools with over 50 participants. In addition, Jana Davis (Chesapeake Bay Trust) is serving as the Habitat GITs Chair and Mike Slattery (Fish and Wildlife Service) is now serving as acting Vice-Chair. The Habitat GIT is currently accepting nominations for the next GIT Chair. Nominations should be sent before November 30<sup>th</sup> to Habitat GIT Coordinator, Jennifer Greiner (USFWS), or Davis.

Greiner attended the Black Duck Joint Venture (BDJV) meeting at the Edwin B. Forsythe National Wildlife Refuge on November 4-5<sup>th</sup> to present on collaboration opportunities between the BDJV and the CBP's Black Duck outcome. Lastly, preliminary data for summer brook trout sampling supported by 2014 Habitat GIT funds is being analyzed by partners at University of Massachusetts Amherst; this data will be a useful addition to the Brook Trout story map being planned with the Geographic Information Systems (GIS) team to inform partners of the progress and upcoming work related to the Brook Trout outcome.

For more information regarding the Habitat GIT, please contact Greiner at [Jennifer\\_greiner@fws.gov](mailto:Jennifer_greiner@fws.gov).

### **Water Quality Goal Implementation Team (GIT 3)**

During a conference call on October 13<sup>th</sup>, the Water Quality GIT (WQGIT) selected six at-large member and approved the Agriculture Workgroup's membership definition. The WQGIT also

discussed recent work on water quality monitoring, including: analysis of trends in water quality criteria attainment, the use of General Additive Models (GAMs) for detecting and describing trends in estuarine waters, and an introduction to the United States Geological Survey's (USGS) analysis of trends in nutrient and sediment loads for the Weighted Regressions on Time, Discharge, and Seasons (WRTDS) model. In addition, the WQGIT created an *ad hoc* group to develop an Action Plan based on the recently released draft Phase III WIP Stakeholder Assessment findings. A draft of this plan will be presented to the WQGIT at the December meeting.

In addition, The Oyster BMP expert panel held their open stakeholder meeting on November 1<sup>st</sup>. Jurisdictions will submit revised BMP Verification Program Plans to the EPA for review on November 16<sup>th</sup>. The most recent WQGIT call was held on November 9<sup>th</sup>. The call agenda included: an overview of Federal 2016/2017 Water Quality Milestones, a review of "Draft 2017 WIP, 2025 WIP, and Water Quality Standards Attainment and Monitoring Outcome Management Strategy workplan", updates on Phase III WIP Stakeholder Assessment Action Plan development, an overview of Phase 6 land use review methodology, and website usability.

For more information regarding the WQGIT, please contact Lucinda Power (EPA) at ([power.lucinda@epa.gov](mailto:power.lucinda@epa.gov)).

#### **Maintain Healthy Watersheds Goal Implementation Team (GIT 4)**

The Healthy Watersheds GIT held a conference call on November 2<sup>nd</sup>. The meeting featured an update on FY15 GIT Funding, where two of the eight proposed GIT projects were selected to move forward with funding: 1) Healthy Watersheds Forest/Total Maximum Daily Load (TMDL) Project (Phase III) and 2) Evaluation of Land Use Policy Options, Incentives and Planning Tools to reduce the Rate of Conversion of Agricultural Lands, Forests and Wetlands. The GIT expects the CBT to complete sub-awards in December followed by the commencement of projects in January by all awardees. The meeting continued with a review of the MS and workplan timeline, featuring a discussion with jurisdictions and federal partner representatives on the individual workplan elements they have contributed to in the preliminary draft of the Healthy Watersheds workplan. After hearing from jurisdictions and federal partner, participants shared reactions and thoughts on the draft workplan.

For more information regarding the Healthy Watersheds GIT, please contact Tuana Phillips (CRC) at ([Phillips.tuana@epa.gov](mailto:Phillips.tuana@epa.gov)).

#### **Fostering Stewardship Goal Implementation Team (GIT 5)**

The Citizen Stewardship workgroup is preparing to field test an index that will provide metrics for the citizen stewardship outcome, as well as soliciting actions for the citizen stewardship workplan.

The Education workgroup's leadership met on October 29<sup>th</sup> to discuss the draft workplan and to prepare for the November 9-10<sup>th</sup> Environmental Literacy Summit held at the National



Conservation Training Center (NCTC) in Shepherdstown, WV. The summit focused on reaching the goals of the Sustainable Schools Outcome.

The Public Access team is continuing to make progress on the Public Access site development workplan. For more information contact John Davy (NPS) at [John\\_Davy@nps.gov](mailto:John_Davy@nps.gov).

Finally, the Land Conservation team participated in the Chesapeake Conservation Partnership's 6<sup>th</sup> Annual Meeting on October 5-6<sup>th</sup>. The record breaking attendance of 120 people consisted of non-profits, American Indian tribes, land trusts, and federal and state agencies. The spirit of the event – “Growing the Partnership, Growing Our Impact” – was clearly reflected both in the increased attendance and the conversations around increasing diversity and inclusion. Updates during the meeting included the recent submission of the Rivers of the Chesapeake Land and Water Conservation Fund proposal for the 2017 fiscal year, preservation efforts on Tangier Island in VA, the successful acquisition of the historic Campbell Tract in the George Washington National Forest, and the improved safety and public access at Brookwood Point on Ostega Lake. Other features included a planning session to address potential impacts from linear infrastructure projects, a panel discussion on strategies to engage with diverse audience, and breakout sessions on key conservation focal areas. The meeting also set the stage for action in the coming year, including continuing progress towards achieving the protected lands outcome of the 2014 Chesapeake Bay Watershed Agreement.

For more information regarding the Fostering Stewardship GIT, please contact Amy Handen (NPS) at ([ahanden@chesapeakebay.net](mailto:ahanden@chesapeakebay.net)).

### **Enhancing Partnering, Leadership, and Management Goal Implementation Team (GIT 6)**

The Enhancing Partnering, Leadership, and Management GIT has been facilitating the process of GIT funding distribution. The CBT was identified as the organization to administer the funds for GIT funding projects. A requirement of all proposals was that they must be related to MS implementation and workplan development. The GITs have finalized their project descriptions and CBT plans to release their RFP by late November and have contracts in place with sub-awardees by February 2016. The Partnering and Leadership GIT plans to establish the process for FY16 funds in the coming months. A process of establishing formal criteria for membership is currently being prepared, per the July 2015 governance document revisions, by the Partnering and Leadership GIT.

In addition, the Local Leadership workgroup has been actively working on developing a workplan for the Local Leadership MS. A draft was submitted on November 2<sup>nd</sup> and stakeholders continue to provide input and feedback into workplan activities. The workgroup is also working on a project to design a watershed education program for local elected officials. The next workgroup meeting, to finalize the work plan for Management Board review, will be in early December. Finally, the Mayor of College Park, MD, Andy Fellows, is now the Chair of this workgroup.

For more information regarding the Partnering and Leadership GIT, please contact Greg Allen (EPA) at ([allen.greg@epa.gov](mailto:allen.greg@epa.gov)).

## *Focused on Science*

### Continued Efforts to Control Invasive Blue Catfish

In November 2014, STAC released the report entitled “Review of the Final Report of the Sustainable Fisheries Goal Implementation Team Invasive Catfish Task Force.” The review was of the final report produced by the Sustainable Fisheries GIT Invasive Catfish Task Force (ICTF). The ICTF was charged with identifying management options that could be applied Bay-wide to respond to the spread of invasive blue and flathead catfish and to concerns that these species may cause ecological and economic harm to Chesapeake Bay. The report featured seven different recommendations which STAC accepted to review in March 2014. The recommendations proposed by the ICTF to control population included: incentivizing and accelerating efforts to develop a large-scale commercial fishery with coordination across jurisdictions, incentivizing increased harvests of invasive catfish by small boat operation and explore the use of electrofishing for commercial harvest purpose, and make information on invasive catfish more accessible, consistent, and clearer to anglers and the general public. STAC assembled a review panel of seven experts to review the ICTF report. Although the reviewers commended the efforts of the ICTF to identify potential management recommendations, they reported a high level of uncertainty associated with many recommendations. Reviewers instead advocated the development of a comprehensive management plan prior to the implementation of the report’s recommendations.

The October 2015 edition of the Bay Journal featured two primary articles focused on current local efforts to control the invasive blue catfish, both authored by Karl Blankenship. The articles were titled, “Fishermen encouraged to take big bite out of Bay’s blue catfish population” and “Electrofishing stunning success in harvesting blue catfish raises concerns.” The first article discusses one fisherman’s success in catching the voracious blue catfish. The article mentioned, “The invasive species last year accounted for 25-30 percent of Rocky Rice’s (a fisherman in the Potomac) income.” The article also discussed that “no one knows how many catfish are in the Bay, but their numbers, and their range, has rapidly increased in recent years.” The ICTF report recommended the establishment of a monitoring program dedicated to identifying and tracking invasive catfish distributions and population status. The STAC review panel’s recommended that a means of funding needed to be made available in order to make the monitoring



*Figure 1. Brent Murphy, the mate aboard Rocky Rice’s boat, checks the tankful of blue catfish he and Rice caught in fish pots in the Potomac River. Some fishermen, including Rice, are interested in the potential for electrofishing to increase their harvests. (Photo Credit: Chesapeake Bay Journal and Dave Harp)*

program feasible. The increased awareness through articles, such as this one, will positively spread the concern and need for jurisdictions to support ICTF's recommendation. The creation of a commercial fishery and market for blue catfish has become a top priority for the CBP's ICTF, according to Bruce Vogt (NOAA-CBPO). The article continued with a discussion of the uncertainty related to the invasive species range and population and increased promotion of the fish at seafood markets.

The second article featured, entitled "Electrofishing's stunning success in harvesting blue catfish" focuses on additional uncertainties associated with electrofishing. As the STAC review panel and this article both note, a concern over the effectiveness of the gear and impacts of the gear on non-native target species remains a huge concern when determining BMPs for controlling the species. Gear limitations, such as water salinity and temperature, make this technique less appealing as well, even with the success of catching large quantities of blue catfish. As the article mentions, "there are limitation to the equipment. It can only be used in low-salinity water. Also, water temperatures have to at least be in the low 70s for it to work, so fishing season is limited to four months." Another aspect to consider is the overall rise in temperature of the Chesapeake Bay and surrounding tributaries waters. Therefore, while this technique is seemingly a good source of controlling blue catfish population, it may not be viable in years to come. Development of the STAC review panel recommended broader comprehensive plan would be able to better address the gear limitations in increased water temperatures.

The negative impacts associated with this invasive species, as portrayed in these articles, is beginning to proportionally increase awareness. As the STAC review panel and these articles mentioned, the uncertainties associated with the invasive species are still too large to make any concrete efforts to control the rapidly growing population. In order to have a larger impact, the review panel suggested comprehensive management plan seems to be the most feasible option to begin controlling this problem.

For those interested in reading the Bay Journal articles mentioned above, visit the following links:

[http://www.bayjournal.com/article/electrofishings\\_stunning\\_success\\_in\\_harvesting\\_blue\\_catfish\\_raises\\_concerns](http://www.bayjournal.com/article/electrofishings_stunning_success_in_harvesting_blue_catfish_raises_concerns) and

[http://www.bayjournal.com/article/fishermen\\_encouraged\\_to\\_take\\_big\\_bite\\_out\\_of\\_bays\\_blue\\_catfish\\_population](http://www.bayjournal.com/article/fishermen_encouraged_to_take_big_bite_out_of_bays_blue_catfish_population).

### ***Continuing STAC Effectiveness: Feedback from Steven Newbold!***

STAC recently welcomed three new members at the September 2015 STAC quarterly meeting/retreat. One, Dr. Steve Newbold (EPA), was kind enough to provide his initial thoughts/feedback from his first STAC meeting, which fortunately happened to be a retreat refocusing STAC's effectiveness. As many may recall, the retreat provided an opportunity for each STAC member to introduce themselves and share a current project they are working on related to the Bay. This gave members the opportunity to communicate and connect with others, as well as learn more about their colleagues and networks.

Throughout the retreat, the membership successfully developed a variety of suggestions to improve effectiveness. Some STAC members believed effectiveness would increase simply by improving communication amongst members, while other members suggested: updating the membership more frequently on fellow member projects/research/work etc., sharing information about member's home institutions, obtaining feedback from members regarding their takeaways after a quarterly meeting, and determining what members are interested in learning from STAC and at the meetings. This feedback should act as a small tool to begin gauging STAC's increased effectiveness and provide simple guidelines for STAC's future.

Dr. Newbold, is currently an economist/environmental policy analyst at the EPA's National Center for Environmental Economics (NCEE). Newbold relates to, and is most interested in, ecological and economic modeling for environmental policy evaluation, especially benefit-cost analysis. Newbold's current responsibilities are to provide technical support on the conduct of benefit-cost analysis for environmental regulations at EPA, especially the use of ecological economic modeling for regulatory impact analysis. More specifically, Dr. Newbold provides technical advice to EPA policy makers on the economic valuation of climate change policies. Dr. Newbold mentioned that the most evident project he is working on related to the Chesapeake Bay is, "a benefit-cost analysis of the TMDL that EPA conducted, but more specifically the commercial and recreational fishing benefits." Dr. Newbold, who was only able to attend day one of the September quarterly meeting/retreat, mentioned his excitement and interest in participating in an advisory committee outside the realm of his normal work. Dr. Newbold also believed that the meeting was a great learning experience, most importantly to get to know what STAC does and who STAC members are. Dr. Newbold was concerned with his effectiveness within STAC, and was focused on learning "where I can best contribute." Dr. Newbold mentioned that after his first STAC exposure, he initially felt gravitated to certain themes including "spatial targeting of management activities to improve cost effectiveness and joining efforts to make adaptive management concretely operationalized." When questioned on initial thoughts from his first meeting, he "enjoying hearing from stakeholders right outside of the membership and how STAC interacts with the Bay Program."

As STAC would like to continually improve effectiveness, STAC members should revert back to the moment they accepted their nomination to become a STAC member. Members should continue to ask themselves the following questions in interviews, at meetings, and in conversations outside of STAC meetings: "Why did I decide STAC was for me?"; "What was I hoping to get out of the membership?"; and "What do I like most about STAC meetings?" Dr. Newbold was recently asked the same questions and said, "the selfish reason he accepted the nomination was to learn, but more importantly I want to open other avenues to the CBP and participate in on the ground management decisions." In order to improve the way STAC operates, members should know who their colleagues are and how they can work together for the greater good of the committee.