

# 2015 Patuxent River Conference

## Small Group Discussion: Blue

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### Watershed / Upland Species and Habitat

What is the most fundamental scientific question concerning watershed / upland habitat and species that would enhance our understanding of the Patuxent River ecosystem?

**Fundamental Question:** What is the baseline of the current health (nutrients, sediments, chemical contaminants) of the nontidal portion of the Patuxent River?

There is a gap in knowledge / research between upland science and tidal science in the Patuxent River watershed. Several key aspects of this gap are:

- How do 'wet' spaces provide ecosystem function and biodiversity, as well as serve as corridors in the upper portion of the tributary?
- There is a need for model refinement to help bridge the gap between tidal and nontidal regions of the Patuxent River.
- There is a need for a CLEARINGHOUSE for local monitoring data.
- More information and better communication is needed regarding *Vibrio* and other potentially dangerous bacteria in order to address concerns over public health safety.

### Tidal Species and Habitat

What is the most fundamental scientific question concerning tidal habitat and species that would enhance our understanding of the Patuxent River ecosystem?

**Fundamental Question:** How effective are different management strategies (i.e. Citizen Science, Living Shorelines, adaptive management, Best Management Practices) in improving water quality / habitat quality, and how do we measure that effectiveness?

There are several key issues / questions relative to the tidal portion of the Patuxent River:

- How are water quality conditions in the lower portion of the river separated from the influences of the Bay?
- Can Living Shorelines be a positive influence on the health of nearshore habitats? If so, how can the state implement more frequent use of this type of erosion control? What will the impact of sea level rise be on this type of engineered shoreline protection?
- With the advent of climate change and altered habitats, what potential impacts will result from invasive species or other species that expand their range into the watershed?

## **Conservation, Restoration, Management, and Monitoring**

What is the most significant conservation, restoration, management, or monitoring strategy that would enhance water quality in the Patuxent River over the next 5 years?

**Fundamental Question:** How do we engage the public through education, knowledge, and attitude?

- Education must play a major role in conserving and restoring the Patuxent River.
- The idea that everyone in Maryland has an important role to play in protecting the river must be made clear. Specific actions need to be cited so that people know how to be better stewards of the river.
- Engaging the public is critical in improving the health of the Patuxent River – people need to gain KNOWLEDGE and alter their ATTITUDE as prime ingredients of an EDUCATION campaign.