



Benthic Beasts: The Ecological Significance of the Lake Sturgeon and Blue Catfish in Eastern Appalachian River Systems.

By Stewart Thacker





What is Benthic?

- Benthic simply put means “bottom.”
- Bottom Feeders
 - Catfish
 - Carp
 - Sturgeon
- This is mainly misconstrued with them inhabiting the bottom while feeding partially on the bottom. So, why all the fuss?





Significance:

A. fulvescens

- Sturgeon are benthivores
- Sturgeon diet consists of feeding mostly on small invertebrates such as insect larvae, crayfish, snails, clams and leeches.
- As well as detritus and similar waste products.
- As shown in this photograph Sturgeon possess inferior mouths which are optimal for feeding directly off the substrate
- This means they are a primary regulator of biowaste and smaller organisms that are often avoided by photic and euphotic dwelling species.





Significance:

I. furcatus

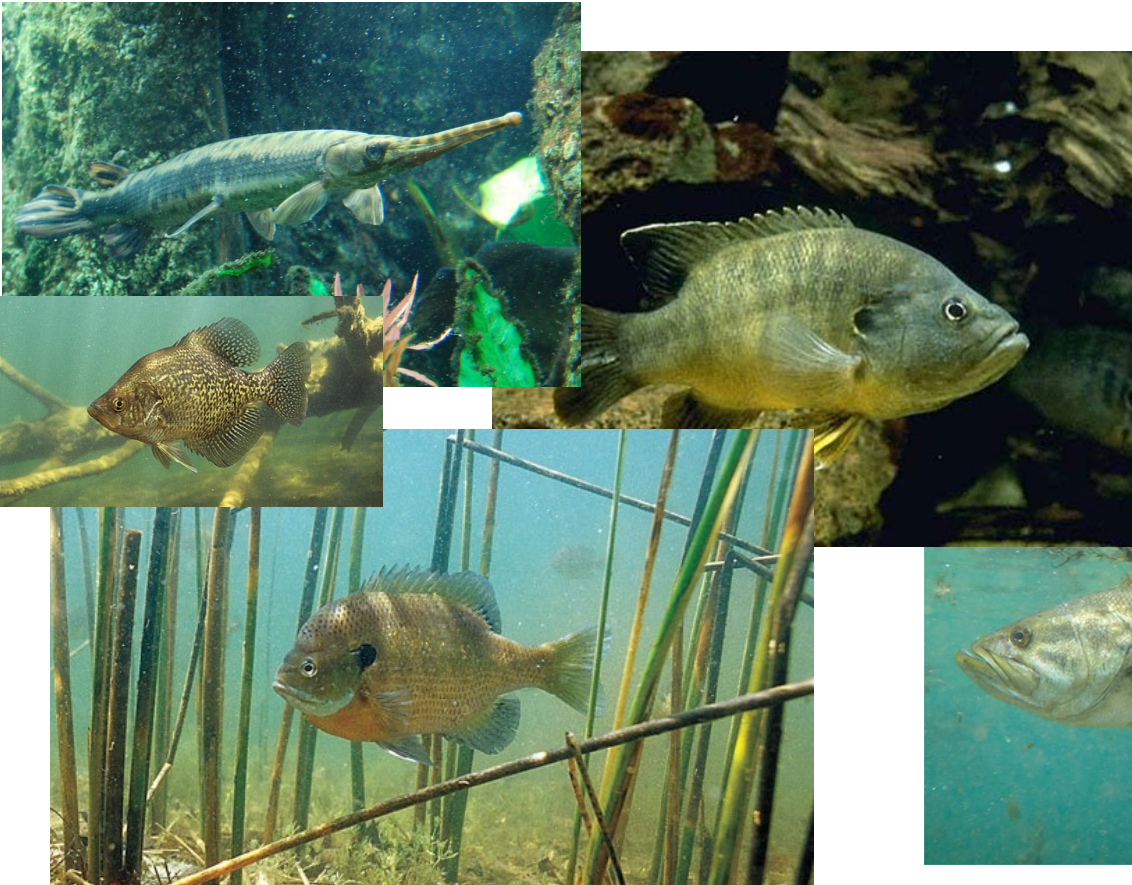
- Blue Catfish are opportunistic/generalist feeders.
- Blue Catfish diet is described as “anything that can fit in their mouths.”
- This means that they regulate all levels of the water column. Species control is their primary role within the waterbody



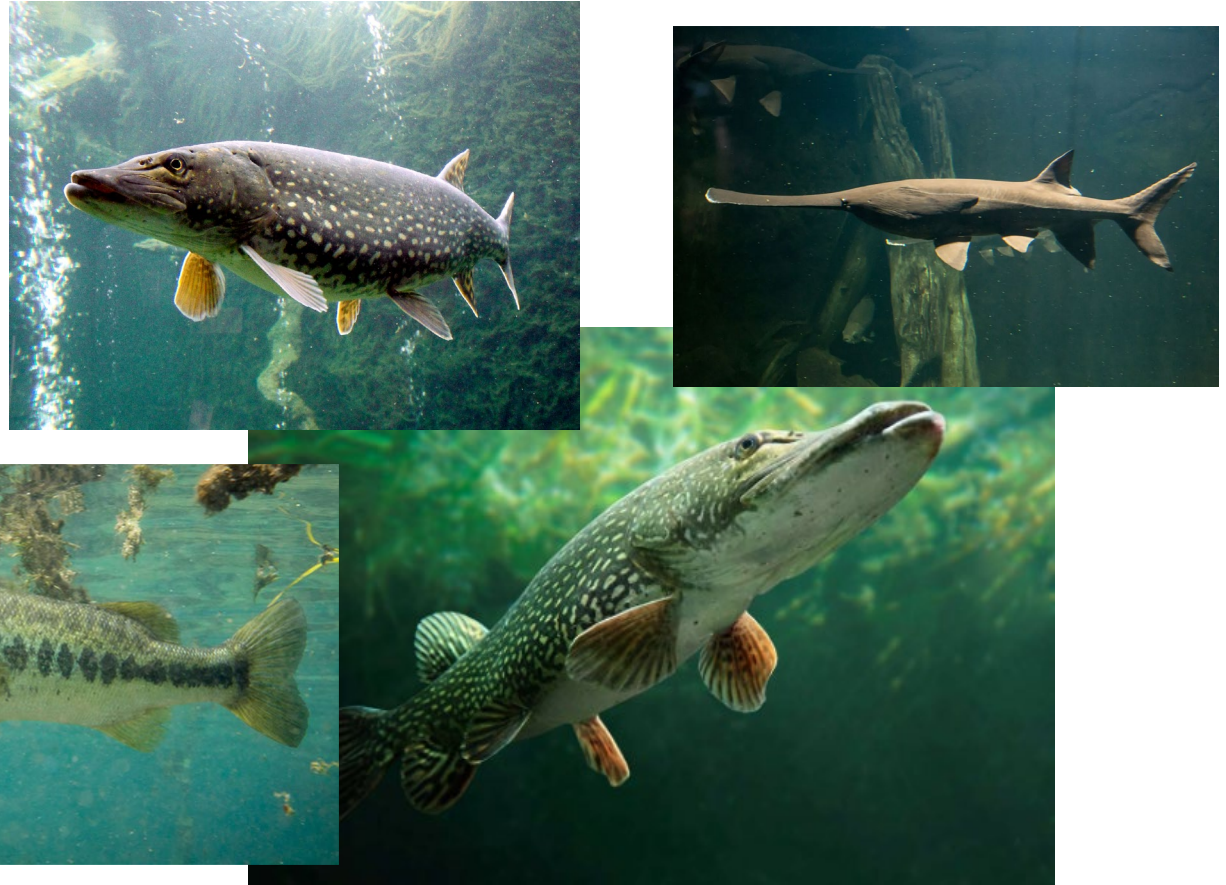


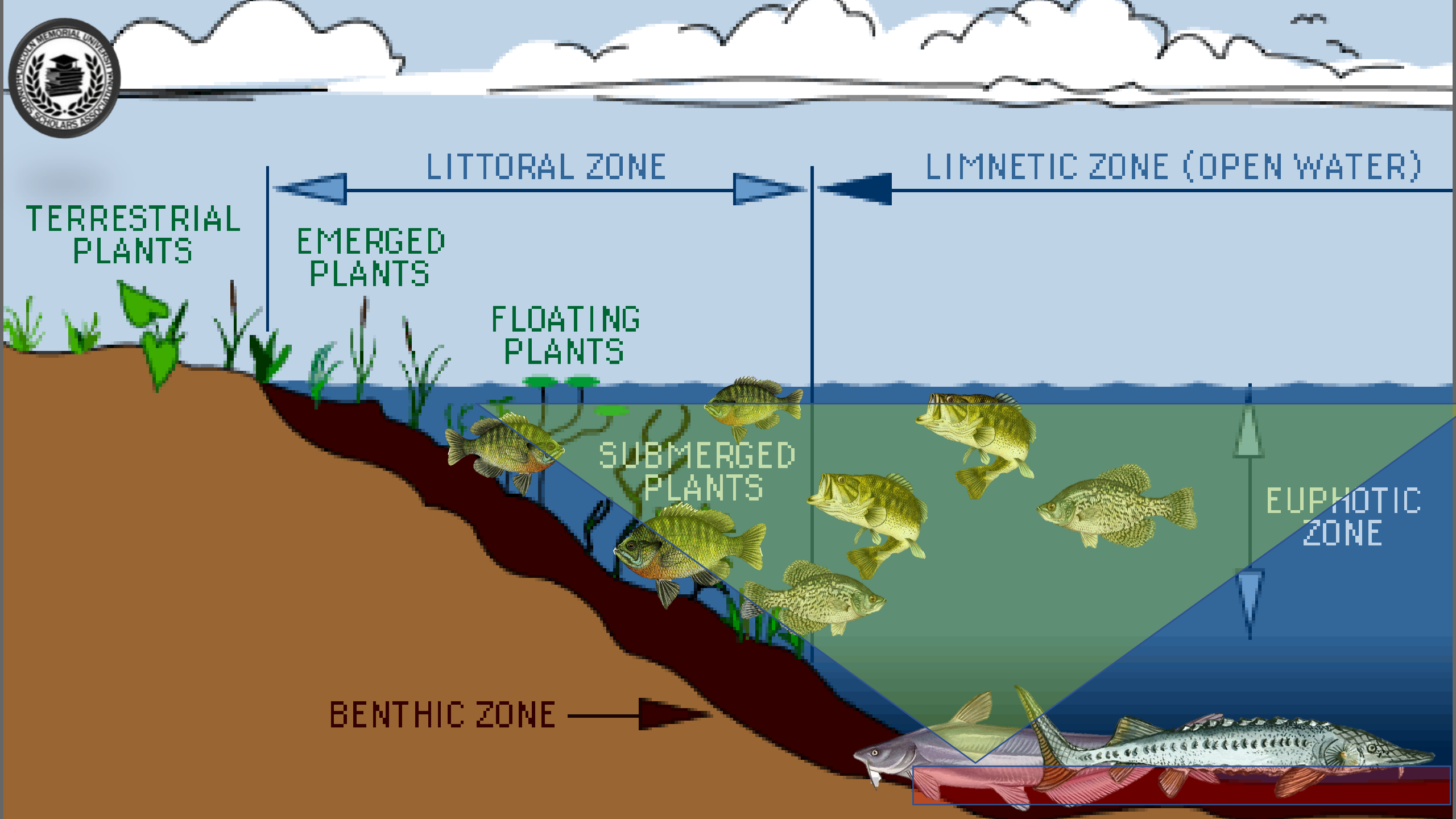
The Water Columns Other Predators

Photic (Topwater)



Euphotic (Midwater)







What makes the bottom so important

- Sturgeon are required to consume 2-3% of their body weight during summer temperatures.
- Catfish consume roughly 2-5% of theirs.
- Meaning, a good amount of food is consumed each day, which significantly decreases bio-load.



Putting it all together.

- Being optimized, top level, consumers of their respective diets; these fish provide significant ecological roles in the water systems.
- Observing their behavior in various sections of the water column allowed me to see their behavior with other species.
- Behavioral observations clearly show other fish species see these as dominant organisms in the ecosystems their in



Questions?
