

The Aquatic Biodiversity of Central Appalachia

THROUGH THE LENS OF THE CHEAT RIVER

The Central Appalachian ecoregion contains forested and aquatic habitats of high species richness, diversity, and uniqueness. Additionally, this region is considered to be one of the richest temperate freshwater regions in the world. The region contains watersheds such as the Cheat River watershed, a 14,000-acre hotspot for many endemic freshwater fish and invertebrates such as the Cheat minnow and Cheat Mountain salamander.

Threats to Central Appalachian aquatic biodiversity include hydrologic alteration and degradation of the aquatic systems. Historic resource extraction within this region, specifically in the Cheat River watershed, has been complex and extensive. Historical activities such as mass timber harvest and mining has severely degraded the aquatic habitats of the region. By the early 1990s, freshwater species were disappearing at alarming rates due to human-related causes. In 1995 American Rivers named the Cheat River one of the nations “Most Endangered Rivers.”



The Cheat River



Hellbender salamander

Friends of the Cheat is a non-profit located in northern West Virginia. This organization began in 1994 to combat the issues arising from acid mine drainage in the river system but has grown to encompass other restoration issues such as riparian reforestation.

The West Virginia Division of Forestry is one of the few to require the implementation of silvicultural BMPs statewide. This ensures that forestry practices will protect water quality of the Central Appalachian ecoregion, and aid in the conservation of unique aquatic habitats.

MANAGEMENT RESPONSE: RECLAMATION AND BMPs

When implemented properly, forestry practices can mitigate threats to hydrologic function and connectivity. The West Virginia Division of Forestry requires the implementation of best management practices (BMPs) to protect water quality and soil conservation during forestry activities. Practices such as creating streamside management zones around streams, building roads with proper grades, and reclaiming landings within seven days of the end of operations. Additionally, to improve the health of the aquatic systems organizations like Friends of the Cheat are implementing restoration activities and spreading awareness about the outstanding values of the Cheat River watershed.

Forest Stewards
 **Guild**