Stream blockages, including road culverts and dams, can pose significant risks to aquatic biodiversity. Due to inadequate designs, many of these man-made structures block the movement of migratory fishes, fragment populations of many resident aquatic animals, and lead to degraded habitat quality through the alterations of water flow and transport of sand and silt. The Patapsco River, located southwest of Baltimore City, is intersected by several dams that are impacting the natural stream communities. The DNR Fisheries Service, through funding from American Rivers, is currently engaged in the removal of these dams to allow the passage of migratory fishes and improve the overall habitat quality of the river. The Maryland Biological Stream Survey (MBSS) is involved in monitoring the fish and benthic macroinvertebrate communities of the Patapsco River to document any changes throughout the dam removal process. In the summer of 2009, the MBSS sampled 10 sites in the Patapsco River that will serve as part of the baseline data prior to dam removal. These sites will be sampled again in 2010 prior to the first dam that will be removed later this summer.