



# RIVER WATCHER REPORT

Improving the water quality of the Hudson River and all its tributaries through education, community involvement, and stewardship.



**Cataract and Millington Brook, Warren County, NY**  
Water quality trends for years 2002, 2003, 2004, and 2005  
Report date: November 2005  
J. Kelly Nolan, Capital Region Coordinator, HBRW

## Purpose/Background

During each August of 2002 through 2005, Hudson Basin River Watch conducted bioassessment surveys on the Cataract and Millington Brooks as part of a stream bioassessment training program. Sites were assessed for physical, chemical, biological, and bacteriological parameters. This report provides an abbreviated summary of the general water quality and water quality trends at those sites. For more extensive background information on the watershed, site locations, rationale of data collected, methods, bibliography, and quality assurance and quality control protocol the reader is directed to the 2002 Cataract and Millington Brook report available at: [www.hudsonbasin.org](http://www.hudsonbasin.org). Complete physical, chemical, biological, and bacteriological data is available from the author.

## Results/Discussion

Physical site assessments, ranging from good to excellent, remained relatively unchanged for each site over the survey period.

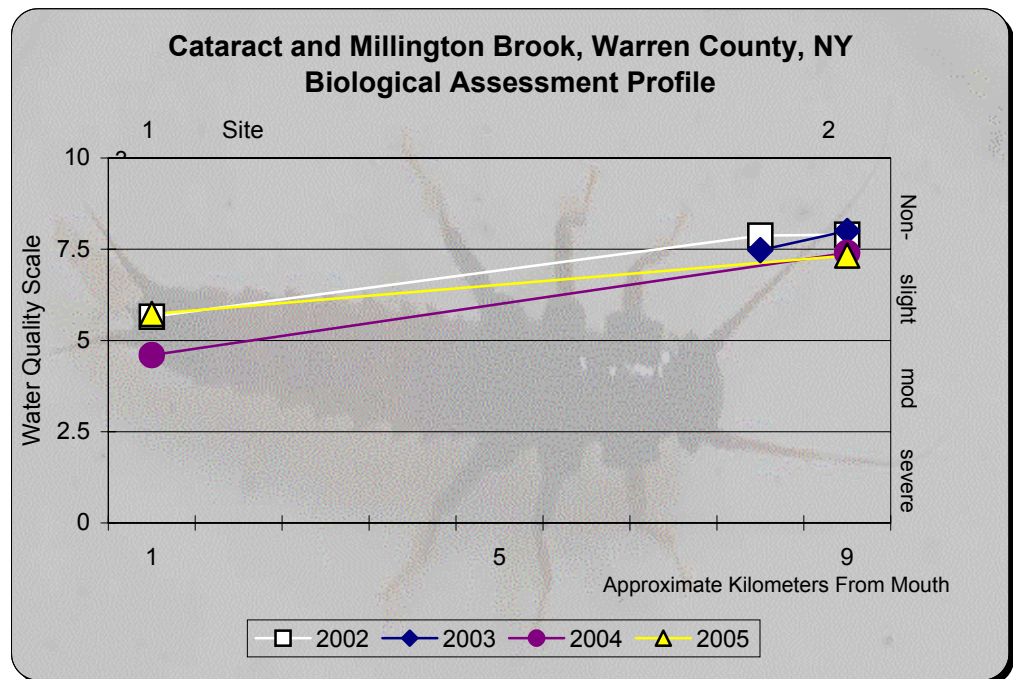
A comparison of the chemical data from each site over time showed only slight variations.

Biological Assessment Profile (BAP) ranged from non-to moderately impacted water quality. While site 1 indicated slightly to moderately impacted water quality, based on the invertebrate fauna, it was apparently related to the effect that Pack Forest Lake exhibits on the benthic community. Benthic fauna at the outflows of most lakes, ponds, and impoundments are affected from the lack of upstream communities to provide a resource for colonization through downstream drift and from the increase of plankton, as a food resource, from the lake (Hynes, 1970). Additionally the benthic

community at site one also exhibited characteristics of headwater stream sites (Bode *et al.* 2002). Individual indices at site 1 indicated these fauna changes were occurring from the lake effect and not a pollution problem. According to Bode *et al.* (2002) the corrective action for impoundment effects and headwater stream sites is to adjust the water quality assessment up one category to reflect its genuine water quality.

BAP scores were adjusted for years 2002—2004 as an error was determined to have occurred during the calculations of the multi-metrics used to determine the BAP. The corrected BAP scores for years 2002, 2003, 2004 and 2005 are reflected in this years BAP graph (see below).

It is expected that the Cataract and Millington Brooks will continue to be sampled yearly as part of the Hudson Basin River Watch's Stream Bioassessment Institute training program. This will allow for continued trend monitoring and follow-up of the watersheds general water quality.



Biological Assessment Profile are values plotted on a normalized scale of water quality. The lines connect the means of four values obtained for each site and year, representing family richness, family EPT richness, family Hilsenhoff Biotic Index, and Percent Model Affinity. For more complete explanation the reader is referred to the 2002 Cataract and Millington Brook report available at: [www.hudsonbasin.org](http://www.hudsonbasin.org)