

# FACT SHEET

## HUDSON RIVER

### FRESHWATER MUSSELS



Past and continuing discharges of polychlorinated biphenyls (PCBs) have contaminated the natural resources of the Hudson River. The Hudson River Natural Resource Trustees – New York State, the U.S. Department of Commerce, and the U.S. Department of the Interior – are conducting a natural resource damage assessment (NRDA) to assess and restore those natural resources injured by PCBs.

While abundant and widespread in some freshwater systems, pearly mussels (Unionidae) are sometimes overlooked as major contributors to benthic invertebrate biomass. In the upper Hudson River and other ecosystems, freshwater mussels serve important functions; they filter the water, cycle nutrients, stabilize sediments, enhance habitat complexity, and are food for wildlife. Through the physical removal of bottom sediments, dredging and capping/backfilling activities in the Upper Hudson River between Fort Edward and Troy, NY have destroyed mussel beds and mussel habitat, which are not being replaced as part of the remedy for the Hudson River PCBs Superfund Site.

As part of the Hudson River NRDA, the Trustees conducted a [pilot freshwater mussel survey](#) in 2013 in the Fort Miller and Stillwater Pools prior to dredging (remediation) occurring in these pools. Based on the 2013 investigations, the Trustees developed a work plan to continue these studies in [2014](#), but implementation was delayed until [2015](#) when the Thompson Island, Northumberland, Upper Mechanicville, and Feeder Dam Pools of the Upper Hudson River were surveyed.



The Trustees subsequently published two amendments to the 2014 study work plan to detail modifications to the study. The [first study plan amendment](#), issued in 2015, recognized that a pool might be surveyed after dredging such that results would constitute mussel surveys in “unremediated” and “remediated areas” of the pool rather than in “unremediated” and “to be remediated areas”. The [second amendment](#), just issued in March of 2019, describes modifications to data collection, sample processing, and schedules.

This amendment describes the approach taken to select a subsample of mussel shells for age determination using thin-section analysis. Field and laboratory data sheets and Standard Operating Procedures are also made available in this second amendment to the study plan.

Overall, surveys provide the Trustees with information about freshwater mussel communities in pools prior to remediation, within remediated pools (remediated and unremediated areas) and in a reference pool (upstream of remediation). Results of these freshwater mussel studies will be used to inform injury determination and quantification, spatial/temporal recovery of impacted mussel beds, and the re-establishment of mussel beds injured by the remedial action on the Hudson River.



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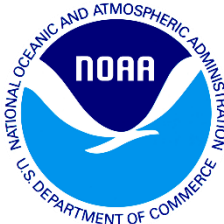
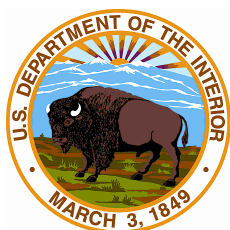
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