



Patuxent Science Meeting 2004 Poster Abstract

The Tree Swallow (*Tachycineta bicolor*) as a Sentinel Species for Sediment Contamination Bioavailability and Effects in the Chesapeake Bay Watershed

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The tree swallow has proven to be a useful sentinel species for studying the bioavailability and effects of sediment contaminants. Sediment contaminants are taken up by developing insects which are then consumed by tree swallows attracted to and using nest boxes that have been placed in the area of interest. Egg Contaminants are measured for the baseline and nestling contaminants are measured to determine the amounts that have been taken up by the growing hatchling. In addition to reproductive success, biochemical biomarkers such as EROD, a biomarker for contaminants such as PCBs, TCDD, and PAHs, are assayed. Because of concern about sediment contaminants in the Chesapeake Bay watershed the tree swallow has been utilized in a number of locations of interest. These locations include the Pocomoke River which has been the focus of significant USGS activities and reconstructed tidal wetlands on NPS lands along the Anacostia River (Kingman Lake and Kenilworth Lake).

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