

PRELIMINARY INVESTIGATION OF FROGS AND SEDIMENTS



SPRING 2004

HUDSON RIVER NATURAL RESOURCE DAMAGE ASSESSMENT

Past and continuing discharges of polychlorinated biphenyls (PCBs) have contaminated Hudson River natural resources. While the U.S. Environmental Protection Agency is continuing with cleanup plans, federal and state trustee agencies are conducting a natural resource damage assessment (NRDA) to assess and restore natural resources injured by PCBs.

This fact sheet provides information about a preliminary investigation of frogs and sediments being implemented under the NRDA.

The Hudson River and its surrounding habitat support many species of amphibians, such as wood frog (*Rana sylvatica*) and northern leopard frog (*Rana pipiens*). These species spend a large part of their lives in contact with potentially contaminated substances-water, sediment, and soil-and consume potentially contaminated prey. Amphibians, such as frogs, are essential components of the food web. They eat insects, spiders, snails and worms, and in turn, are eaten by fish, snapping turtles, herons, mink, and raccoon. While providing nutrients for their predators, amphibians also pass on the hazardous substances they have accumulated.

PCB EXPOSURE AND EFFECTS

Many laboratory and field studies have shown the potentially harmful effects of PCBs on fish, birds, mammals, and other wildlife. However, toxicological data on PCB impacts on amphibians are limited. Some studies indicate that when amphibians are exposed to PCBs they may die, become deformed, or experience problems during the change from tadpole to adult frog.

PURPOSE

The Trustees are investigating the feasibility of using amphibians for an injury determination study through a preliminary investigation focused on wood frogs and northern leopard frogs, and the habitats in which they breed. The goal of the preliminary investigation is to determine if a full-scale study of the effects of PCBs in the Hudson River on amphibians should be undertaken in the future. The objectives of the preliminary investigation are to:

- Establish whether northern leopard frog and wood frog are present in the Upper Hudson River in sufficient numbers and locations to support future injury studies.
- Determine contaminant levels in sediments from known breeding areas of the northern leopard frog and the wood frog.

There will also be opportunistic collection of data on three other amphibian species - the bullfrog (*Rana catesbeiana*), the green frog (*Rana clamitans*) and the American toad (*Bufo americanus*).

STUDY LOCATION

The study will be conducted along the Hudson River from Bakers Falls in Hudson Falls, New York (River Mile 196.6) to the Federal Dam in Troy, New York (River Mile 153.9). If you own property along this portion of the Hudson River, a scientist from the New York State Department of Environmental Conservation may ask you for permission to enter your property for this study. If you grant permission, the scientist will survey your property for the presence of frogs and frog egg masses. This may involve listening for frogs, searching for frogs, and potentially collecting sediment samples from frog breeding habitat. The Trustees will not enter your property without your permission.





The Hudson River Trustees—assessing and restoring your natural resources

Further information on the Hudson River NRDA can be found on the following websites:

www.darp.noaa.gov/neregion/hudsonr.htm

www.dec.state.ny.us/website/hudson/index.html

<http://contaminants.fws.gov/restorationplans/HudsonRiver.cfm>

To add yourself to the **Hudson-NRDA listserv**:

1. Send a message to: requests@willamette.nos.noaa.gov
2. Write in the subject: Subscribe hudsonnrda

Hudson River Natural Resource Trustees
NYSDEC
625 Broadway, 5th Floor
Albany, NY 12233

If you have questions about natural resource damages, or want to submit a restoration project or be placed on the Hudson River NRDA mailing list, please contact one of the individuals listed below:

Lisa Pelstring
National Oceanic and Atmospheric Administration
1305 East West Highway SSMC4, Room 10219
Silver Spring, MD 20910
301-713-3038 x195
Lisa.Pelstring@noaa.gov

Fred Caslick
United States Fish and Wildlife Service
3817 Luker Road
Cortland, NY 13045
607-753-9334
fred_caslick@fws.gov

Steven Sanford
New York State Department of Environmental Conservation
625 Broadway, 5th Floor
Albany, NY 12233
518-402-8996
sxsanfor@gw.dec.state.ny.us