

Contamination impact studied in amphibians

February 21 2006

Scientists at the Savannah River Ecology Laboratory near Aiken, S.C., have found amphibians are exposed to contaminants through maternal transfer.

Bill Hopkins, an associate professor in Virginia Tech's College of Natural Resources, and colleagues collected dozens of reproductively active female eastern narrow mouth toads located around a settling basin near an Aiken-area coal burning power plant.

The burning of coal releases mercury, selenium and other harmful contaminants into the environment. The research team tested toads and their offspring for the presence of chemical contaminants, as well as examining the offspring for developmental abnormalities.

"We also looked at clutch size, how many eggs successfully hatched, along with developmental characteristics such as pigmentation and spinal formation," said Hopkins.

Both adult females and their offspring from the settling basin were compared with toads from a contamination-free reference site.

"We found females from areas near the power plant accumulated astonishingly high concentrations of selenium in their tissues, and then transferred nearly equivalent concentrations of selenium to their young," said Hopkins.

The research has appeared in the National Institutes of Health journal,

Environmental Health Perspectives.

Copyright 2006 by United Press International

Citation: Contamination impact studied in amphibians (2006, February 21) retrieved 24 April 2024 from <https://phys.org/news/2006-02-contamination-impact-amphibians.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.