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Are PBDE Chemicals Causing the Bald Eagle to Go Extinct?

Bald eagles have been a symbol of wisdom and strength and this beautiful kind of creatures is the North America's national emblem. However, a recent study by [McGill University of Montreal](#), as reported in the *Journal of Great Lakes Research*, has more or less distorted this reputation of our national symbol.

The researchers conducted an investigation on the 33 dead bald eagles that were collected by the Michigan Department of Natural Resources between 2009 and 2011. The result is disturbing. They found very high concentration (1,538 parts per billion) of all four types of toxic chemical called Polybrominated Diphenyl ethers (PBDEs) in the birds' liver. They described this contamination as "among the highest found in liver tissues of any wildlife."

PBDEs is normally be applied on human properties like electronics, clothing or furniture as flame retardant in case they are caught on fire. In the early 2000s manufacturers ceased on using the chemical as the toxic PBDEs was found to have contaminated humans and their environment. However, the chemical traces are still well found in our environment.

How did they get the contamination? According to the university's associate professor Nil Basu, they might have got it by being the top predators in the food chains. They may be eating contaminated fish in lakes, rivers or the ocean which have been polluted heavily by human industrial activities that once used PBDEs. Another possibility is they may be contaminated in human landfills by breathing the air full of PBDE containing dust there or by licking the dust on their feathers.

However, the effect of the contamination is known to be mild. It may cause reproduction and hormone disruptions if exposed for a long term. The present bald eagles in Michigan appear to be reproducing healthily but if this phenomenon continues, the bird's population may go down to a critical level, like what happened in the late 1950s when PCBs and DTD chemicals were responsible for bringing the country's bald eagles to the brink of extinction.