Otter research gives insight into lead pollution

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Valuable evidence about the success of the lead petrol ban has been gathered from otters by a scientist at Cardiff University.

As well as providing important new information about the secretive otter species, post-mortems on otters killed by cars since 1992 gave an insight into the levels of lead pollution in the environment. The results have important implications for human health as lead can damage the central nervous system including the brain, as well as affecting the kidney and reducing growth, particularly in children.

Researcher Dr. Liz Chadwick in the School of Biosciences at the University said: "We measured the level of lead in rib-bones taken from over 300 otters found dead in south-west England between 1992 and 2004 and collected by wildlife veterinary pathologist Vic Simpson.

"We compared this with levels of lead found in stream sediment by the British Geological Society and airborne emissions recorded by the National Atmospheric Emissions Inventory. While some variation related to geology, we found an extremely strong decline over time, reflecting declining emissions from car fuel: otter bone lead levels in 2004 were less than a quarter of those in 1992."

Dr. Chadwick stresses that the research highlights the importance of long-term monitoring and archiving of samples and shows that with help from the public, valuable use can be made of undesirable events such as wildlife road traffic accidents.

The project was in collaboration with Cornwall's Wildlife Veterinary Investigation Centre and was funded by the Environment Agency.

Dr. Chadwick will present her findings at the British Ecological Society's Annual Meeting at Oxford University between 5-7 September.

More information about the research can be found at www.otterproject.cardiff.ac.uk

Source: Cardiff University