First signs of progress in saving Indian vultures from killer drug

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The ban on a veterinary drug which caused an unprecedented decline in Asian vulture populations has shown the first signs of progress, according to scientists. However, the recovery of the wild vulture populations requires efforts to see the drug completely removed from the birds' food supply.

In a new study, published today (11 May 2011) in science journal, PLoS ONE, researchers report measurements of the prevalence and concentration of diclofenac in carcasses of domesticated cattle in India, made before and after the implementation of a ban on its veterinary use.

The governments of India, Nepal and Pakistan banned veterinary use of the painkiller, diclofenac, in 2006 because of its lethal effects on vultures that feed on the carcasses of cattle and buffaloes that had been treated with the drug shortly before they died.

The study shows that the proportion of cattle carcasses in India contaminated with the drug declined by over 40% between 2006 and 2008. The concentration of the drug in contaminated animals also fell.

Combining the effects of these two changes, the expected rate of annual population decline of the vultures is expected to slow by approximately 60%. However, the resulting decline rate is still expected to be around 18% per year for the most susceptible species, the oriental white-backed vulture, down from about 40% per year before the ban, meaning that vultures will not recover unless efforts to eradicate the drug becomes still

more successful.

Although the legal action has started to show encouraging results, much remains to be done, because diclofenac manufactured for human use is still being used illegally to treat cattle in India.

One of the study's authors, Dr Devendra Swarup, former Research Director of the Indian Veterinary Research Institute, commented: "Because of the difficulty in ensuring that human diclofenac is not being used illegally and in secret, testing the vulture food (cattle carcasses) directly is the only way to find out how safe the vultures really are."

Lead author, Dr Richard Cutbert of RSPB, said: "This shows how much progress has been made, but there is still a job to do to make sure that safe alternative drugs are used. Unfortunately some of the alternatives have not been tested for their safety to vultures and one drug in increasing use, ketoprofen, is already known to be toxic to vultures".

In fact, the only safe alternative used in Indiaknown so far is meloxicam, which is becoming more widely used now that its cost is falling and approaching that of diclofenac. However, other drugs known to be toxic or with unknown effects remain legal and are still being used by vets.

Dr Asad Rahmani, Director of the Bombay Natural History Society said: "Complete removal of diclofenac from vulture food is the single most important action needed to save vultures. Human formulations are still being sold by some irresponsible companies in large veterinary-sized vials (30ml) and these bigger bottles must also be outlawed to make illegal diclofenac use on cattle more difficult and expensive."

More information: Cuthbert R, Taggart MA, Prakash V, Saini M, Swarup D, et al. (2011) Effectiveness of Action in India to Reduce Exposure of Gyps Vultures to the Toxic Veterinary Drug Diclofenac.

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A study published in 2007, led by Dr Vibhu Prakash from the BNHS, showed that the population of oriental white-backed vultures in India had dropped by an average of more than 40 per cent every year between 2000 and 2007. This species' numbers have dropped by 99.9 per cent since 1992 to about 11,000 from tens of millions. Populations of long-billed and slender-billed vultures together, have fallen by almost 97 per cent over the same period. Long-billed vultures are now thought to number about 45,000 and slender-billed vultures just 1,000. The research was published in the *Journal of the Bombay Natural History Society* and is here www.rspb.org.uk/Images/IndianV … ines_tcm9-188415.pdf