

Anti-inflammatory drug kills eagles, scientists say

Brussels, 27 May 2014 - In a paper published today in the journal *Bird Conservation International*, scientists present results of tests carried out on two steppe eagles found dead in Rajasthan, India. One of the two birds had diclofenac residue in its tissues and exhibited the same clinical signs of kidney failure as seen in vultures.

Steppe eagles are closely related to the golden eagles found in the UK, the vulnerable Spanish Imperial Eagle and other globally vulnerable or declining Eurasian eagles. Scientists now fear that all species in this genus, known as *Aquila*, are susceptible to diclofenac. With fourteen species of *Aquila* Eagle distributed across Asia, Africa, Australia, Europe and North America, this means that diclofenac poisoning should now be considered largely a global problem.

Dr Toby Galligan, RSPB conservation scientist and one of the authors of the paper, said: “In light of recent developments in Europe, our findings take on an even more worrying meaning. All of Europe’s charismatic *Aquila* eagles, like the Spanish Imperial Eagle and, closer to home, the Golden Eagle, are opportunistic scavengers and therefore could be at risk of diclofenac poisoning. As we have seen in South Asia, wherever free-ranging livestock is treated with diclofenac, population declines in vultures and eagles can occur. The European Commission needs to recognise this problem and impose a continent-wide ban on veterinary diclofenac before it can impact on our birds.”

Worryingly, it was announced in March that the drug had been authorised for manufacture and use in Italy and Spain and had been distributed to other European countries. Since then, a coalition of organisations including the Vulture Conservation Foundation, the RSPB (BirdLife in the UK) and BirdLife Europe have been campaigning for this decision to be reversed.

Iván Ramírez, Head of Conservation at Birdlife Europe stated: “The findings strengthen the case for banning veterinary diclofenac across Europe and for the enforcement of bans in South Asia to stop the illegal misuse of human diclofenac to treat livestock.”

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BirdLife Europe is a Partnership of nature conservation organisations in 49 countries, including all EU Member States, and a leader in bird conservation. Through its unique local to global approach BirdLife Europe delivers high impact and long term conservation for the benefit of nature and people.

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Visit our [website](#) and sign the [petition](#) to save vultures and eagles: <http://www.birdlife.org/europe-and-central-asia/project/ban-veterinary-diclofenac-now>

Editors' notes:

- In the study published today [Tuesday 27 May 2014], led by Dr Anil Sharma from the India Veterinary Research Institute and including RSPB and BNHS, researchers show extensive visceral gout, lesions and uric acid deposits in the liver, kidney and spleen and diclofenac residue in the tissue of one of two steppe eagles found at a cattle carcass dump in Rajasthan, India. These diclofenac residue and the same clinical signs have been seen in dead wild *Gyps* vultures and also shown in *Gyps* vultures experimentally given diclofenac. These findings suggest that diclofenac is toxic to other accipitrid raptors and is therefore a potential threat to much wider range of scavenging species in worldwide. Search articles in the latest issue at [Cambridge Journals Online - Bird Conservation International](#)
- A study published in on 1 of April 2014, led by Dr Toby Galligan from the RSPB and including BNHS, researchers show a fast decline in Egyptian and red-headed vultures in India between 1992 and the mid 2000s before a slowing and possible reversal in 2011. These trends reflect those of Indian *Gyps* vultures (see below) that are known to be susceptible to diclofenac; suggesting that Egyptian and red-headed vultures may have been adversely impacted by diclofenac, and that government bans on this drug, which are beginning to take effect, may benefit a wider range of vulture species in the Indian subcontinent than was previously thought. [Cambridge Journals Online - Bird Conservation International - Have population declines in Egyptian Vulture and Red-headed Vulture in India slowed since the 2006 ban on veterinary diclofenac?](#)
- A study published in 2007, led by Dr Vibhu Prakash from the BNHS and including RSPB researchers, 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; equivalent to about 11,000 from tens of millions individuals. Populations of long-billed and slender-billed vultures combined, 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/IndianVultureDeclines_tcm9-188415.pdf
- A study published in 2012, led by Dr Vibhu Prakash from the BNHS and including RSPB and BCN researchers, showed that the population declines in oriental white-backed, long-billed and slender-billed vultures in India and Nepal had slowed and possibly reversed between 2007 and 2011. However, populations of all three species remained at a low level and population trends are imprecise, so it is possible that declines may be continuing, though at a significantly slower rate. [PLOS ONE: The Population Decline of Gyps Vultures in India and Nepal Has Slowed since Veterinary Use of Diclofenac was Banned.](#)
- The International Union for the Conservation of Nature (IUCN) classifies all three species as Critically Endangered, the highest risk category short of extinct in the wild.
- Previous studies in 2004 – 2007 found that diclofenac was the main, if not the only, cause of vulture declines. The birds die of kidney failure after eating the carcasses of animals that have died within a few days of being treated with diclofenac to ease pain and swelling.
- Carcass dumps used to attract thousands of vultures, which could clean a carcass within minutes. Now, packs of up to 200 feral dogs roam these sites, substantially increasing the risk of attack, and diseases like rabies.

- A meeting of the Indian National Board for Wildlife in 2005, chaired by the Prime Minister of India, prompted the withdrawal of licences for the manufacture of veterinary diclofenac.
- The Oriental white-backed (or white-rumped) vulture *Gyps bengalensis* is up to 85cm long, with a wing span of between 205 and 220cm. Adults are black with a white head and neck and short bill. The bird is sociable and used to breed in very large colonies. Now, they nest in trees in small colonies.
- The Indian long-billed vulture, *Gyps indicus*, is robust in appearance, more than 90cm long with buff back, white neck and yellowish bill. It is found near cultivated areas, often with white-backed vultures. It now nests in small colonies on steep cliffs and ruins. In the early 1990s, there were colonies of up to 1,000 birds.
- The slender-billed vulture, *Gyps tenuirostris*, is between 80 and 95cm long, a thinner vulture, mostly brown and scruffy looking. It nests in large trees and is the rarest of the three Asian vulture species.
- The Parsi community is having to find other means of body disposal. In the past, they placed the bodies of their dead on Towers of Silence for vultures to consume.
- In Nepal, efforts are underway to protect wild populations by combining encouragement to observe the diclofenac ban with the provision of safe food. Nepalese authorities halted the domestic manufacture and import of diclofenac in August 2006.
- Three captive breeding centres have been built so far in India, where approximately 300 vultures are housed in total and successful breeding of all three species has now occurred. They are in Haryana, West Bengal and in Assam. Two additional centres are operational in Nepal and Pakistan, and five Indian zoos are also developing captive breeding facilities with support of the Central Zoo Authority.
- The UK Government's Darwin Initiative has helped to fund research and captive breeding programme over a ten-year period (2003 to 2013). More details here darwin.defra.gov.uk
- The captive breeding programme in India is run by Bombay Natural History Society and funded by the RSPB, Critical Ecosystem Partnership Fund, Rufford Foundation and the Darwin Initiative, with technical support from the International Centre for Birds of Prey (UK), the Zoological Society of London, the RSPB and the Indian Central Zoo Authority, State Governments of Haryana, West Bengal and Assam. There are additional smaller vulture breeding facilities in Nepal and Pakistan.