

A LITTLE BIT OF WHAT YOU FANCY... *could be lethal*



TIM JACKSON

Painkillers are the most widely used drugs in the treatment of livestock. Across India, Pakistan and Nepal, vultures were exposed to one such drug, diclofenac, while at carcasses of animals treated with the drug shortly before death. Diclofenac, which causes gout and renal failure, is highly toxic to *Gyps* vultures and has led to a precipitous decline of more than 99 per cent in populations of three *Gyps* species since the 1990s (see box below).

Diclofenac is a non-steroidal anti-inflammatory drug (NSAID) that is licenced as a veterinary medicine in at least 15 African countries, leading to concern about its effects on vultures across the continent. Presently it is not widely used in Africa, although fresh concerns over its availability were raised following its discovery on sale at a veterinary practice in Tanzania in 2007, raising fears that it could become established as a veterinary drug.

Clinical trials and records from captive-breeding programmes show diclofenac and several similar NSAIDs are toxic to African scavengers, including *Gyps* vultures (Cape, White-backed and Rüppell's) and Marabou Storks. There are obvious concerns for other vultures too, including the endangered Egyptian and vulnerable White-headed and Lappet-faced, for which there is no clinical information.

In South Africa, conservation-minded farmers donate carcasses for vultures to feed on, and there are some 236 of these vulture restaurants across the country. Although restaurants appear to be beneficial to vultures, the South Asian crisis has heightened awareness about the levels of potentially toxic veterinary chemicals in carcasses, while raised levels of lead in several birds at vulture restaurants have recently been reported in South Africa. Restaurants may also affect

the scavenging behaviour of vultures; in India, for instance, researchers from the Peregrine Fund identified a positive role for restaurants, by reducing the foraging area of vultures and therefore the likelihood of their feeding on contaminated carcasses elsewhere in their range.

Recently, the University of Pretoria collaborated with the Rhino and Lion Foundation (www.rhinolionconservation.co.za) to establish the Vulture Programme. With support from WWF South Africa (www.wwf.org.za), the programme received a significant boost for vulture conservation through a sponsorship deal from agricultural services group AFGRI, which provides animal feeds to some 23 000 farmers in South Africa.

The sponsorship will allow the programme to address four key objectives. The first of these will focus on the impact on vultures of lead and veterinary chemical residues in livestock. The second will use GPS/GSM telemetry and tagging to evaluate spatial use by vultures, while the third is an awareness and education campaign involving birders, who will be asked to report sightings of marked and tagged vultures. The final objective is the development of a bank of biomaterials, such as tissue and feathers, for ongoing conservation research. □

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Asian vulture crisis deepens

Asian vultures will be extinct in the wild within a decade unless urgent action is taken to eliminate the livestock drug that has caused their catastrophic decline, a newly published paper warns.

The study shows that the population of White-rumped Vultures *Gyps bengalensis* is dropping by more than 40 per cent each year in India, where it has plunged by 99.9 per cent since 1992. Numbers of Indian *G. indicus* and Slender-billed *G. tenuirostris* vultures combined have fallen by almost 97 per cent in the same period.

Conservationists say that banning the retail sale of the veterinary drug diclofenac

and constructing three additional captive-breeding centres is the only way to save the birds. Manufacture of the veterinary form of the drug as an anti-inflammatory treatment for livestock was outlawed in India in 2006, but it remains widely available. In addition, diclofenac formulated for humans is being used to treat livestock.

The study, published in the Journal of the Bombay Natural History Society, states that White-rumped Vulture is now in dire straits, with only one thousandth of the 1992 population remaining. The researchers believe that numbers of the species in India could now be down to 11 000, from tens of

millions in the 1980s. Populations of Indian and Slender-billed vultures have dropped to around 45 000 and 1 000 birds respectively.

'Efforts must be redoubled to remove diclofenac from the vultures' food supply and to protect and breed a viable population in captivity,' said lead author, Dr Vibhu Prakash, of the Bombay Natural History Society (BirdLife in India).

All three species could be reduced to a few hundred birds, or less, across the entire country and thus be functionally extinct in less than a decade, unless the use of diclofenac in livestock is stopped immediately.

BIRDLIFE INTERNATIONAL