

Lappet-faced Vulture (*Torgos tracheliotos*) breeding in Ithala Game Reserve, KwaZulu-Natal, South Africa

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An active Lappet-faced Vulture (*Torgos tracheliotos*) nest with a large chick on it was discovered in Ithala Game Reserve, northern KwaZulu-Natal (KZN), at the end of September 2005 by Ezemvelo KZN Wildlife staff whilst carrying out an annual aerial game census. This nest, on top of an *Acacia tortilis* tree, is the first record of any vulture nesting in the reserve since its establishment in 1975 (Ezemvelo KwaZulu-Natal Wildlife unpublished data), and probably the first in the area in at least the last 50 years.

The chick was ringed on 2 November 2005 using a 45 mm long red PVC ring with the unique white inscription of T01 on the right tarsus and a 26 mm incoloy ring on the left tarsus (SAFRING number G24453). Access to the nest tree was easily gained using a long ladder. The bird successfully fledged early in December 2005 and was re-sighted in the presence of the parent birds five times at various carcasses in the reserve between January and April 2006 (Ezemvelo KwaZulu-Natal Wildlife unpublished data). The young bird was not seen again subsequent to April 2006.

The same tree and nest was used by (presumably the same) Lappet-faced

Vultures in the 2006 breeding season. The nest was monitored regularly and the chick was ringed on 2 October 2006 (45 mm long red PVC ring with engraved white number T02 and 26 mm incoloy ring (SAFRING number G24445)).

Ithala Game Reserve (30 000 ha) was commercial farm land up until 1975 and although the full suite of herbivores has been reintroduced subsequent to establishment, large predators, other than low numbers of Spotted Hyaena (*Crocuta crocuta*) and Leopard (*Panthera pardus*), are absent (Ezemvelo KZN Wildlife, 2007). Vultures were only seen very occasionally subsequent to protected area establishment and were not residents (pers. obs.). The absence of large predators was thought to be a limiting factor in the re-colonisation of vultures to the area in terms of the absence of an adequate and reliable supply of carrion (Marchant et al. 1998). In addition, the reserve was stocked well below carrying capacity for many years after proclamation while herbivore numbers were still increasing; the resulting abundance of forage resources resulted in lower herbivore mortality rates

(Ezemvelo KZN Wildlife unpublished data).

In response to the observed lack of carrion a predator simulation strategy was initiated in 1997 whereby a proportion of the animals in the reserve were shot and provided for vultures and other scavengers. The number of carcasses provided was calculated on the basis of the herbivore biomass and the resulting expected biomass of predators (lion, wild dog, cheetah) in the system in the past (Coe et al. 1976). Based on the expected predator biomass, their expected kill rates, and the average proportion of carcasses remaining and available to scavengers, the total mass of available carrion in the system per annum could be calculated; for Ithala this was estimated to be approximately 10 500 kg/annum or 36 kg/km²/annum. The number of herbivores shot was then calculated so as to provide the required amount of carrion; the actual number of carcasses provided varies according to the mass of the species utilised, but approximated 90-100 blue wildebeest per annum. These were provided at a rate of approximately two per week over the whole year, and totalled approximately 900 animals between the initiation of the programme and this first recorded vulture breeding event (Ezemvelo KZN

Wildlife unpublished records).

Although no quantitative data were collected, carcass utilisation by vultures has been high, with an increasing frequency of sightings up till present where vultures are now a regular (virtually daily) sight in Ithala compared to the early 1990s when they were rarely seen (pers. obs.). It is surmised that the provision of carcasses in an essentially predator-free area was the key factor in the increase in presence of vultures in Ithala, and their recent return as breeding residents. In addition, during 2006 immature White-backed Vultures (*Gyps africanus*) have been noted on two occasions attempting to construct a nest in *Acacia nigrescens* trees in the eastern section of Ithala, near to the Pongola River (Gary Bawden pers. obs.).

A medium-term concern for the re-establishment and conservation of vultures (and other raptors) in Ithala relates to the high rates of large tree mortality resulting from the effects of large herbivores, particularly giraffe and elephant (Bond & Loffell 2001, Rushworth & Blok 2001, Monadjem & Garcelon 2005). Herbivore management strategies in Ithala must carefully consider the requirements of vultures and other raptors for nesting trees.

References

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