

## Thesis Abstracts

<http://dx.doi.org/10.4314/vulnew.v80i1.6>

HIRSCHAUER, M. (2016). *Release success of captive bred Cape Vultures (Gyps coprotheres) in the Magaliesberg Mountains, South Africa*. MSc thesis, Rhodes University, Grahamstown, South Africa. xi + 112 pp. Correspondence: mhirscha@gmail.com

The Cape Vulture, *Gyps coprotheres*, is currently classified as ‘endangered’. Endemic to southern Africa, its population has declined continuously over the past 40 years. The species is facing multiple anthropogenic threats. Notably, birds frequently collide with power lines and some cannot be released after treatment. This has led to the establishment of a captive breeding population with the hope that captive bred young can supplement wild populations and re-establish a now-abandoned breeding colony in the Magaliesberg Mountains, South Africa. This study aimed to follow the breeding behaviours of the captive colony and assess the appropriateness of chick rearing conditions. The study also aimed to monitor the behaviour, physical condition and dispersal of ten captive-bred vultures after release in relation to their age.

Behavioural observations of captive adult breeding and parental behaviours were conducted to establish whether chicks developed under comparable conditions to wild chicks. A high percentage of total colony copulations (22%) were extra-pair copulations. Four paired males formed ephemeral extra-pair relationships, two of which were homosexual. Captive-bred chicks fledged earlier than wild chicks, on average at 128 days old.

Wild and captive bred birds were observed at carcasses to compare competitive and feeding behaviours. Older birds, both wild and captive, fed the most efficiently. Preliminary evidence suggests females are more dominant and have higher display rates than males. Captive bred juvenile and four year old birds’ competitive and feeding behaviours (interaction rate, feeding rate, display rate, dominance, aggressiveness, and feeding efficiency) were the closest to, but still generally below, average values for same-aged wild birds. An index of body condition, body mass, and the prevalence of fault bars on the rectrices were used to assess their physical condition.

After eight months, none of the ten birds had moved more than 8 km from the release site, nor had they foraged away from the vulture restaurant on site. Although altitude records of >3100 m were recorded, their flight skills seemed inadequate.

Future management considerations include the initiation of a pre-release exercise regime, the establishment of an acclimatization enclosure removed from the breeding site, and a varied or reduced post-release feeding schedule. Fledglings should be relocated and housed at the release enclosure until they are four years old.

*Peer-reviewed research derived from the thesis:*

Hirschauer, M. T. & Wolter, K. 2017. High occurrence of extra-pair partnerships and homosexuality in a captive Cape Vulture (*Gyps coprotheres*) colony. *Ostrich* 88: 173-176.

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*Note from the editor:*

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