

**CAUSES OF DEATHS IN SCIMITAR-HORNED ORYX (*ORYX DAMMAH*) IN THE UK ZOOLOGICAL COLLECTIONS, 1971-2012: A RETROSPECTIVE STUDY**

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The scimitar-horned oryx (*Oryx dammah*) is a desert antelope, extinct from the wild due to uncontrolled hunting, habitat loss, drought and continued warfare in its former home range. This species has been maintained in the UK zoological collections since 1971. Currently, only a few scimitar-horned oryx are left in the UK. This retrospective study was performed to determine the causes of deaths and the diseases affecting this species in captivity. Necropsy reports of 420 scimitar-horned oryx that died or were euthanized due to medical reasons in nine zoological collections in UK from 1971–2012 were analysed in this study. Causes of deaths were determined for three age groups; namely, neonates (day 0 - 10), juveniles (day 11 - 11 months) and adults (>1 year) and the prevalence of recorded diseases were compared between these age groups and gender. The main causes of neonatal deaths (32.1%, 35/109) were stillbirths and premature births (perinatal). Bacterial infections were the most common cause of death in juveniles (36.8%, 50/136) and adults (32.0%, 56/175). The prevalence of enteric infections and pneumonia were high across all age groups. Deaths due to enteritis were significantly higher in juveniles and adults than in neonates ( $P = 0.006$ ). Also, deaths due to parasitic gastroenteritis were significantly higher during the autumn and winter than during spring and summer ( $P = 0.001$ ). There was no significant difference in the occurrence of parasitic gastroenteritis between juvenile and adult ( $P = 0.41$ ). Traumatic injuries were the second most common cause of deaths or euthanasia in both juveniles (10.3%, 14/136) and adults (17.7%, 31/175). The definitive causes of deaths were not known for a large proportion (42.1%, 177/420) of cases particularly in the juvenile age group. Overall, the captive scimitar-horned oryx population of the UK appears to have high prevalence of infectious diseases across all age groups. This study highlighted the need for evaluation of management aspects, which include housing, feeding, genetics and preventive veterinary care, of the scimitar-horned oryx population in UK.

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