

## **A retrospective study on the prevalence of plastic materials in the rumen of sheep and goats in Nairobi, Kenya.**

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A retrospective study of small ruminant necropsy cases between January 1982 and December 2012 was conducted at the Department of Veterinary Pathology, Microbiology and Parasitology, Faculty of Veterinary Medicine, University of Nairobi, Kenya. The objective of the study was to assess the prevalence of plastic materials in the rumen of sheep and goats examined at post mortem over the period. A total of 770 carcasses (367 sheep and 403 goats) presented for post mortem were studied. The overall prevalence of rumen plastic materials in the rumen was 4.2%. The prevalence was higher in goats (7.2%) than sheep (0.8%) and also was significantly ( $p < 0.05$ ) higher in older animals (5.5%) than in younger ones (2.4%). There were increases in the cases of plastic materials in the rumen in recent years (2002-2012) compared to the earlier years (1982-2001), though more cases were examined at post mortem in the earlier years. A significantly higher ( $p < 0.05$ ) prevalence rate (15.0%) of plastic materials in the rumen was observed in the period between 2003 and 2007. More cases of plastic materials in the rumen were observed in the dry seasons than the wet seasons. Observations in the current study may be a reflection of increased indiscriminate disposal of waste plastic materials in the urban and peri-urban areas of Nairobi. Good waste management and sound animal husbandry practices are required to prevent mortalities related to ingestion of plastic materials in sheep and goats in Nairobi, Kenya.