

**Comparatives studies on the water balance and functional
renal anatomy of several species of Uganda ruminants**

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Comparative studies on the water balance and related physiological phenomenon of five East African goats obtained from three distinct geographical zones of Uganda, and of one or more representatives of each of four game ruminant species from three. The present studies show that the dikdik, an arid country antelope is better adapted to heat stress and to restricted water availability than the bushbuck, reedbuck or Uganda kob, all three latter animals being moist savannah or bushland antelopes. The studies indicate that the East African goat is well adapted to most geographical environments encountered in Uganda. The studies suggest the existence of a direct relationship between the relative size of the renal medulla and the degree of aridity of the habitat for these and several others, and that by comparison with a carnivore, the domestic dog, the total relative glomerular volume of those ruminants studied is smaller than that of a carnivore which latter animal needs to excrete higher amounts of nitrogenous waste resulting from a higher protein diet.