

## ABSTRACT

During sexual encounters in most antelope species, males routinely investigate recently voided urine or the genitalia of females and often perform flehmen following such investigations. Quantitative data from field studies of gazelles and eland confirmed previous observations that the most common result of the female's urinating when being sexually pursued is to terminate the male's sexual pursuit, presumably by communicating the state of anestrus. Impala females do not urinate when being sexually pursued. This difference between impala and the other antelope was attributed to the ease with which impala females can escape sexual pursuit of males by dashing into the tightly clustered herd of females or losing the male in light woodland brush. Eland males direct 93% of all flehmen responses to genital contact or the urine stream of females they are pursuing, in contrast to gazelles, which devote less than 10% of flehmen responses to these stimuli. These species differences were related to differences between the multimale groups characterizing eland herds and the territorial, single-male social system characterizing gazelle.