

Buffalo Populations Structure (*Syncerus caffer*, Sparman, 1779) in Garamba National Park (Haut-Uélé, DRC).

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1 ABSTRACT

Data on buffalo in Garamba National Park was collected throughout the park. The methodology consisted of observation by means of a ground surveillance inventory of the buffalo. The observations revealed that 99.16% of the buffalo live in family groups, with an average herd size of 37.9 individuals. The study identified 4.674 buffalo, broken down by age group: 22.46% adults, 25.31% sub-adults, 38.78% juveniles and 43% calves. The rainy season showed a greater abundance of juveniles (49.96%), while the dry season recorded a total of 1.537 buffalo. The results of the statistical tests (χ^2 and Kolmogorov-Smirnov) indicated significant variations in the population structure depending on the season and quarter of the year. The overall sex ratio was 0.61, meaning that on average there is 1 male for every 1.6 female. Analysis revealed that the sex ratio also varied according to age class, with values ranging from 0.45 for adults to 0.75 for calves, indicating a viable population. These results underline the importance of managing buffalo populations in the park, encouraging their growth and dynamics over the seasons. The data collected will contribute to a better understanding of local ecology and the impact of environmental change on buffalo populations.