## **Group size and Ranging Patterns of Queen Elizabeth National Park Elephants**

## Eve Abe

Like elsewhere in Africa, the elephants of Queen Elizabeth National Park (QENP) suffered a drastic decline in numbers in the 1970's. The major cause was the illegal killing of elephants for the sale of ivory. It was noted that elephant groups had become fewer in the park but one large group had formed. In 1989, therefore, it was found necessary to investigate what effect this critical reduction in numbers had on the ecology of the QENP elephants. This paper, which forms a part of that work, tries to examine the effect of critical reduction on the group size and ranging patterns of the remaining elephants.

Smaller groups of elephants are now very frequent, suggesting that the large semi-permanent groups

may be starting to split up. A group of about 200 individuals which range on the northern side of Kazinga Channel were, at the beginning of the study, encountered only in the areas of Hamukungu and Kasenyi. Now two years later they are frequenting the Crater regions and Mweya Peninsula. A second group of about 60 whose movement is more parallel to the Kazinga Channel have also of late been encountered in the Chambura Game Reserve. The areas least frequently used were undoubtedly where mass massacres took place in the 1970's. It is therefore possible that some of these individuals survived from these regions. Bulls in musth are known to cross the Channel to seek mates.

## Illegal Activities and Law Enforcement in the Central Luangwa Valley, Zambia, from 1979 to 1992

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- Data on illegal activity and law enforcement from the central Luangwa Valley, Zambia, are analysed for two time periods, the first 1979-82, when the National Parks and Wildlife Service was supported by the Save the Rhino Trust (SRT), the second (1988-92), when it was supported by the Luangwa Integrated Resource Development Project (LIRDP). Data on the intervening period are not currently available.
- 2. Prior to 1979, there was effectively no law enforcement in the area which was subject to extremely heavy illegal offtake of elephant, rhino and other species. During the SRT period, there were up to 22 effective wildlife scouts engaged in law enforcement, with an operating budget

- estimated at US\$1 5/km²/ year. This was sufficient to reduce but snot halt the decline of elephant and rhino populations.
- 3. The LIRDP period was supported by major funding from the Norwegian Agency for Development Cooperation, NORAD, which was used for an integrated rural development programme. The wildlife management component was allocated about US\$65/km²/year; this led to the increase of scouts to 285 by 1991 and comparable increase in law enforcement effort.
- 4. Between 1988-92, illegal offtake of elephant was reduced by a factor of 88% to an acceptable level estimated at about 10% of the sustainable yield