

IMPACT OF ELEPHANTS ON HABITAT AND MANAGEMENT OF THE PROBLEM AT OL PEJETA CONSERVANCY

Elephants' Conservation Challenges

Elephants are known to frequently damage fences and water infrastructure, destroy crops, and at times cause severe injuries to humans and death. However among these concerns is habitat destruction (Picture 1, 2 & 3). In Ol Pejeta Conservancy if the acacia woodland habitats are not monitored and elephant numbers well managed, it can result to irreversible damage levels.

Management interventions

Between 1998 and 2001, studies conducted by Earthwatch Institute in OPC indicated overstocking of elephants in the former Sweetwaters game reserve (SWGR) leading to severe damage of the acacia trees. As a result the rhino carrying capacity declined from estimated 90 to about 50 rhinos.

Based on the recommendations of this study, a total of 56 elephants were translocated from OPC to Meru National park in 2001 in conjunction with KWS (Picture 4). Consequently, *Acacia drepanolobium* mortality caused by elephants reduced significantly (Figure 1).

The study also recommended that the game reserve be expanded and this was effected in April 2007 by expanding the former SWGR from approximately 24,000 to 75,000 acres. The expansion availed more food resources for herbivores and thereby reducing browsing pressure.

In addition to the expansion, three corridors were opened to the north of OPC, thereby enabling dispersal of elephants to the greater Laikipia ecosystem.

Monitoring Results of the interventions

Elephant induced mortality of *A. drepanolobium* declined from 4.4 % to 2.5 % (2005-2007); this significant reduction was realized as a result of elephant redistribution since the expansion and establishment of the movement corridors.

Habitat monitoring of acacia woodland after the 2001 translocation showed gradual recovery of these habitats; 14% annual regeneration of *A. drepanolobium* recorded thereafter.



Photo Credit: Earth Watch PI



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Picture 1 Elephant pushing a yellow fever tree (*Acacia xanthophloea*).

Picture 2 Yellow fever tree knocked down, debarked, and completely destroyed.

Picture 3 Whistling thorn tree (*Acacia drepanolobium*), a key rhino diet broken by an elephant.

Picture 4 Translocation exercise in which 56 elephants were translocated to Meru National Park.



Photo Credit: OPC

Figure 1: Mortality factors of *Acacia drepanolobium* and trends between 1998 and 2007.

