

Desert rhinos dehorned

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THE dehorning of rhinos has finally been attempted in a brave experiment aimed at thwarting poachers¹. Africa's black rhinos *Diceros bicornis* have dwindled at an unprecedented rate, from an estimated 65,000 in 1970 to fewer than 4,000 now, chiefly because of international demand for rhino horn. During the past decade conservationists' attempts to halt this decline using both a total trade ban on horn, enforced through the Convention on Trade in Endangered Species, and underfunded field-based projects to protect large populations *in situ*, have failed miserably^{2,3}. The dehorning experiment was conducted in Damaraland, Namibia, where a small population of black rhinos uniquely adapted to desert life had once again become threatened when 16 of them were killed this year⁴.

The experiment will cause controversy among conservationists because, although dehorning has been discussed as a measure to prevent poaching since the 1950s, until now it has been discarded in most areas of Africa for several reasons⁵. First, the cost of dehorning several thousand rhinos over tens of thousands of square kilometers would be extremely expensive. Second, the two African species, the black and the white (*Ceratotherium simum*) rhino, use their horns in sparring⁶ and to defend

calves against predators such as lions and spotted hyenas (see figure). Hence, hornless rhinos may be unable to maintain their social status or to rear their calves successfully. As important, most black rhinos live in thick bush, and a poacher sighting only a part silhouette could shoot before finding his quarry is hornless⁵.

To stand the maximum chance of success, therefore, dehorning should be carried out in a small and discrete population of rhinos living in an open area where there are no natural predators. These conditions are met by the habitat and rhino population of Damaraland, where the principal factors to be considered are the effect of dehorning on social status and the risks of injury in fights with horned rivals. The other major advantage of Damaraland is that the successful conservation measures that brought the population of desert rhinos up from a heavily exploited population of around 40 in 1980/81 to 100 in 1988 involved local tribesmen who act as auxiliary game guards⁴. Their role in informing potential poachers that rhinos in the area are now dehorned will be vital.

If successful in Damaraland, dehorning may become more widespread. Plans have already been made to dehorn a group of threatened white rhinos in Zimbabwe⁷.

Even though previously rejected as a conservation method for the once large populations of black rhinos living in wooded areas, circumstances may have changed sufficiently for dehorning to be reconsidered in East and Central Africa. Remnant black rhinos in Kenya have been moved during the past few years into small fenced sanctuaries, a strategy which has so far been successful in stabilizing numbers⁸. As a further precau-

tion, however, all the enclosed rhinos could be dehorned, predators of rhino calves removed from the sanctuaries, and information and education campaigns mounted to inform poachers of the dehorning so that reprisal killings⁸ are avoided. Tourists, too, would need to accept that hornless rhinos are better than no rhinos.

One other problem remains to be solved. The horns of the Damaraland rhinos have only been sawn off and filed down¹, and so will regrow within two to three years. If initial dehorning experiments prove successful and rhinos are not to be exposed to the risks of repeated immobilization, cauterization of the horn bases should be experimented with. An analogous operation, albeit with horns of a somewhat different structure, is carried out routinely to poll horned breeds of cows and is permanent⁹. Conservationists can only hope that Namibia's courageous move will play a constructive role in a final stand to save Africa's rhinos over the next decade. □

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A mother rhino defends her bloodied calf against a hyena. Will dehorning increase predation risk? (Photograph courtesy of Dr Hans Kruuk, Banchory Research Station, Kincardineshire, UK.)

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