RHINO NOTES

Black rhino hunting quotas approved for Namibia and South Africa at CITES Conference of the Parties 13

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The 13th Conference of the Parties (CoP13) of the Convention in Trade in Endangered Species of Fauna and Flora (CITES) was held from 2 to 14 October 2004 in Bangkok, Thailand. The first two rhino items to be debated concerned quota applications by Namibia and South Africa to sport hunt 5 and 10 surplus male black rhinos per year respectively.

As could be expected, the proposed use of hunting as a conservation tool generated much debate. This is primarily due to philosophical differences of opinion on 1) whether it is right to kill individual animals to further overall conservation objectives for the greater good of a population or species (Leader-Williams et al. in press) and 2) whether one supports the principle of sustainably using wildlife and resources to generate revenue to help fund conservation management programmes and to create positive economic incentives to encourage the private sector and communities to conserve wildlife and habitats. Those whose primary focus is on the welfare of individual animals targeted for hunting, as opposed to the broader issues of how best to conserve viable populations of species and their related habitats, tend to be against hunting, irrespective of whether it can be demonstrated to be sustainable and/or create positive incentives to encourage people in developing countries to conserve wildlife (Leader-Williams et al. in press).

The surplus male problem

At first glance, it seems inconceivable that anyone would want to hunt *Vulnerable* (Namibia) and *Critically Endangered* (South Africa) subspecies of black rhino when so much effort is going into protecting these animals and breeding them up as rapidly as possible. The presenters of the two quota applications at CoP 13 therefore spent some time explaining the problem of surplus male black rhinos and arguing the conservation merits of their proposals. As misleading information has been published in the press regarding these proposals, it is worth examining the rationale behind them in some detail.

Surplus black rhino males are not a new problem. The issue has been discussed by IUCN's African Rhino Specialist Group (AfRSG) since 1992.

The problem is that some populations can end up with markedly skewed sex ratios in favour of males. These skewed sex ratios can occur either by chance in some populations (with many more males than females being born), or if removals from donor populations are biased in favour of females (as was the case in setting up the highly productive Namibian custodianship populations). The problem is compounded by an apparent slightly skewed sex ratio at birth in favour of males, although this is often later reversed because of the higher adult male mortality rates due to fighting.

The problem is that the social carrying capacity of adult male black rhinos is limited. If no action is taken in markedly male-biased populations, fight-related mortalities are likely to increase once these surplus males grow up. If surplus males killed only other males then perhaps they could just be left to fight it out and let natural selection take its course. However, conservationists have expressed concern that in such

populations, valuable breeding females and calves may be injured or even killed as well as other males, as appeared to have been the case in Pilanesberg National Park in the past (Keryn Adcock pers. comm.). Surplus males also use valuable food resources that may affect female breeding performance. Although not yet conclusive, preliminary evidence from annual SADC Rhino Management Group status reporting suggests that female reproductive success may also be slightly higher in populations with a higher proportion of adult females to males. Thus many field managers in southern Africa have for some time now sought to find a way to reduce the number of surplus males in such populations. Somewhat counter-intuitively the hunting of a limited number of surplus males may end up stimulating metapopulation growth rates and hence overall rhino numbers.

Only some populations have a surplus male problem. Owners or management agencies conserving populations that end up with skewed sex ratios in favour of females over males are invariably happy for this to remain the case as long as possible, as percentage growth rates and calving production will be higher. This is similar to productive cattle farming where the number of bulls in a herd is limited to maintain rapid population breeding rates. Managers of such female-skewed black rhino populations are simply not keen to accept males.

The corollary is that while populations that end up with markedly skewed sex ratios in favour of males usually want to obtain more females, sourcing additional females is very difficult. Many donor populations, not unexpectedly, are loathe to provide females only, as this would negatively affect the donor population's sex structure and potential future performance. In practice, it is hard for the populations that have by chance ended up with more males to source and obtain additional females.

It is also known that specific rhino males can dominate the breeding and sire a large proportion of the calves in smaller populations. The removal of such animals after a period of say 10–15 years may therefore reduce the risk of father–daughter matings and contribute positively to the genetic management of such populations,

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Namibia and South Africa have each been given an export quota to hunt five surplus male black rhinos per year.

in the same way that a cattle farmer is unlikely to keep the same breeding bull for an extended period. In addition, the hunting of an old post-reproductive male that has been pushed out of his territory will not affect his contribution to the gene pool of that population.

Attempted solutions to the surplus male problem

A number of alternatives to hunting surplus males have been tried over the years including sending surplus males to zoos, attempting to sell them, and creating male-only populations in reserves that are too small to hold breeding populations. This last approach has not been particularly successful or popular. For example, in Makasa, KwaZulu-Natal, South Africa, a bull in a small male-only population killed the other two males. For the approach to have a better chance of success it is recommended that males that 'know' each other be introduced together.

Attempts to exchange or introduce adult males to bring in new blood to populations have also not had much success, with the result that it is recommended that adult females be introduced instead.

The argument that surplus males can be used to 'test' potential new areas for reintroduction also has limited applicability. This is because breeding females need to be on a higher nutritional plane than males to successfully conceive and raise calves at a rapid rate. A 'survival' diet for a small number of male rhinos is not the same as a diet for optimal breeding. Therefore, the mere fact that a few surplus males survive in a new area is no guarantee that females will breed well if introduced (which in the process will raise stocking rates higher).

In addition, mortality risks when setting up new populations appear to be reduced if founder animals are introduced at the same time. Concerns have been expressed by some that if male-only populations were to be established, and females introduced at a much later date, mortality rates of females following introduction may increase. If an area is big enough to set up a breeding population of black rhinos, ideally one should proceed straight to setting up the breeding population and not start with males only. If one starts with males, the problem remains of sourcing more females than males in future.

Demand for surplus males has been limited, and as a result these males have not generated much revenue to help fund conservation. Live males auctioned in KwaZulu-Natal in 2004 fetched an average price of USD 21,130.

Another problem—declining budgets for conservation

The reality facing many conservation management agencies in Africa is that their budgets have been declining in real terms. Successful rhino management is also expensive, requiring concentrated field protection and law enforcement, running of intelligence networks, monitoring, maintenance of fences and waterholes, and biological management (including translocating groups of surplus rhino to set up new breeding populations). These activities are required to meet national metapopulation goals and rapidly increase the number of black rhinos in national metapopulations. Intensively managing and successfully protecting rhino populations can cost as much as USD 1000 per square kilometre (Nigel Leader Williams and Tony Conway pers. comm.).

Hunting of surplus southern white rhino has been sustainable

Proponents of the two proposals argued that hunting limited numbers of southern white rhino in South Africa (and to a much lesser extent in Namibia) has to date clearly been sustainable. White rhino numbers have increased rapidly in both countries despite limited sport hunting. When white rhino hunting started in earnest in 1968 there were an estimated 1800 southern white rhinos in South Africa. Following good protection and translocations to set up many new populations, numbers in South Africa have increased to around 10,530 in the wild with a further 780 in other African countries and 750 in captivity worldwide. All 12,000-odd southern white rhinos alive today are derived from a single population of only 20–50 animals in South Africa in 1895, and the rescuing of this subspecies from extinction has been widely acclaimed as having been one of the world's greatest conservation success stories. The hunting of limited numbers of southern white rhino has been seen in southern Africa as playing an important role in funding conservation by stimulating live sale prices (with state conservation areas being the primary beneficiaries) as well as promoting wildlife conservation as

an economically viable form of land use (Emslie and Brooks 1999). One of the reasons white rhino hunting has been sustainable is that hunting levels have on average been low—in the region of 0.5–0.6% per annum in South Africa (Adcock and Emslie 1994).

Given the high cost of successful rhino conservation, the demonstrated sustainability of southern white rhino hunting, and the fact that other attempts to deal with the surplus male problem have met with limited success and generated little revenue to help fund conservation, it was to be expected that proposals to hunt surplus male black rhinos would eventually emerge. Indeed, the possibility of starting hunting has been discussed for a number of years in the SADC Rhino Management Group. A number of conservation agencies in southern Africa had suggested that such a move could be a win–win strategy—solving the surplus male problem while at the same time generating additional much-needed income to help fund necessary field conservation efforts. It has been estimated that a black rhino trophy hunt would fetch about USD 200,000, almost 10 times the current live price. It is expected that this would create a positive economic incentive for the private sector and communities to conserve black rhinos. The live value of black rhinos is also likely to increase, which will most benefit the state conservation agencies with surplus breeding animals.

The original South African proposal set out to hunt a higher proportion (0.85%) of the country's most common subspecies of black rhino (*D.b. minor*) than did the Namibian proposal (0.40%). The original proposed level of offtake in South Africa was therefore slightly higher in percentage terms than the average level of white rhino hunting being undertaken in South Africa, but still under the suggested maximum of 1%. By comparison, Namibia's proposed quota was slightly lower. In the light of this and following representations by AfRSG, TRAFFIC and WWF, South Africa proposed at CoP 13 to reduce its quota to five, in line with Namibia, as a precautionary measure.

Proponents of limited hunting argued that hunting such a small number of such surplus males will not lead to a reduction in overall rhino numbers, but for the reasons outlined above rather could contribute to improving population growth rates. They also have noted that the combined number of black rhinos now in Namibia and South Africa (2530) is greater than the number of southern white rhinos when hunting started in South Africa in 1968 (1800).

Differences between the two proposals

While Namibia and South Africa proposed a joint draft resolution on the establishment of export quotas for black rhino hunting trophies, there were important differences in the two countries' proposals.

In Namibia all black rhinos belong to the state. Thus Namibia's Ministry of the Environment and Tourism would decide which specific surplus males would be hunted. It was explained that many individual rhinos in Namibia are individually known, enabling the ministry to target specific surplus male animals. Namibia also indicated it would hunt only adult male black rhinos. The Namibian representative committed that 100% of all proceeds from any black rhino hunted on communal conservancy land would be made available for use in conservation programmes by respective community conservancies through the Namibian Game Products Trust Fund, thereby proposing a mechanism whereby communities that did not own the rhinos but had successfully conserved them would benefit directly from the hunting. The largest community-managed black rhino population in Africa occurs in Namibia, and it was explained that communal land representatives have shown high interest in this scheme. At CoP 13, Namibia stated that it was keen to increase benefits to communities.

In South Africa some black rhinos are privately owned, and in addition to South African National Parks there are nine different provincial conservation agencies with different levels of skill and competency. There is also room for improvement in the management of privately owned horn stockpiles. As a result, a number of NGOs including TRAFFIC and WWF have expressed concern about how and who would control and issue hunting permits in South Africa. In response to these concerns, the South African delegation at CITES indicated that permits for black rhino hunting would be issued only at a national level by the Department of the Environment and Tourism (DEAT) following the receipt of applications from the provinces. All trophies would be microchipped. The South African delegation also verbally indicated they would start hunting only when a new Act comes into force in mid-2005, which legally requires permitting of endangered species and their products. TRAFFIC and WWF still had reservations about the

proposed control mechanisms and felt that the proposal from South Africa was premature and should be considered only once control mechanisms were in place and demonstrably operational.

The presentation of the South African proposal was not clear on how it would be decided which five rhinos to hunt. The DEAT representatives at CITES were encouraged to adopt a strategy that created positive incentives for good conservation and maximized conservation benefits along the lines outlined in the paper by Leader-Williams et al. (in press).

Concerns were expressed about where the trophy fees would go and how funds raised would be used to further rhino conservation. While surplus male rhinos in South Africa would be hunted on private sector land, some parastatal state conservation agencies would have the potential to hunt black rhinos and keep the proceeds. The North West Parks Board (who have hunted white rhino in their parks) and Ezemvelo KZN Wildlife (who have hunted white rhino in controlled hunting areas adjacent to their parks) are such agencies. State conservation agencies are also likely to be the main recipients of any benefits obtained by increases in live sale prices to follow the start of limited sport hunting.

Debate on the Namibian hunting quota proposal

The Namibian proposal was debated first. The delegations of Argentina, Benin, Botswana, Brunei Darusalaam, Cameroon, Cuba, Guinea, Indonesia, Japan, Qatar, South Africa, Trinidad and Tobago (also speaking on behalf of St Lucia), the United Republic of Tanzania and Zimbabwe supported the proposal, variously citing its sound scientific basis, the effective management and monitoring systems already in place, the involvement of stakeholders, and the benefits to local communities. While supportive, the delegate from Nigeria emphasized the need for effective monitoring. The delegation from the Netherlands, speaking on behalf of the 25 member states of the European Union, also stated that the EU would support the proposal and draft resolution as long as it was specified that only adult males would be exported and that all trophies would be marked. Namibia agreed to this and proposed suggested wording changes to specify only adult males, and that all parts to be exported would be individually marked with reference to the country of origin, species, quota number and year of export.

The delegations of Chad and Nepal had reservations about the proposal, believing that poaching and illegal trade still posed major problems. Nepal recommended that a stringent monitoring system be established before an export quota was allowed. While believing the Namibian proposal had merit, the delegations of the Central African Republic and Pakistan thought it premature, and that it should be delayed by 10 years. The delegations of India and Kenya did not support the proposal, drawing attention to the fact the species was *Critically Endangered* in the IUCN Red List. (Interestingly, while the species rates as *Critically Endangered* the Namibian subspecies of black rhino *Diceros bicornis bicornis* is listed only as *Vulnerable*). They were supported by observers from Born Free Foundation and Save Foundation Australia.

The CITES Secretariat suggested that a better way of accommodating the provisions set out in the Annex to CoP 13 Doc 19.3/19.4 Addendum would be to insert them as an annex in the existing Resolution Conf. 9.21 rather than adopt a new, separate resolution as proposed by Namibia and South Africa.

On account of the majority of Parties speaking in favour of the proposed amended draft resolution (equivalent to 41 countries for and five against) the Chair of Committee I moved that the export quota be approved by consensus. Kenya requested that the issue be put to the vote, but as no other range state raised an objection, the amended Namibian proposal and amended draft resolution (as applying to Namibia) were accepted by consensus.

Debate on the South African hunting quota proposal

In introducing their proposal, the South African delegation revised their annual quota to five as a precautionary measure. They also amended the criteria that defined the animals that could be hunted to exclude sick and injured animals, as hunting such animals would be unethical and against the spirit of fair chase.

The debate on the South African proposal followed a pattern similar to the earlier discussion of the Namibian proposal.

The delegations of Botswana, China, the Democratic Republic of Congo, Egypt, Gabon, Guinea, Iceland, Japan, Nigeria, Norway, Swaziland, Switzerland, Zambia and Zimbabwe supported the proposal, citing South Africa's sound rhinoceros management. Qatar noted it would support the proposal for post-reproduc-

tive males. The delegation from the Netherlands speaking on behalf of the 25 member states of the EU once again stated the EU would support the proposal and draft resolution as long as they specified that only adult males would be exported and that all trophies were marked. South Africa agreed to this.

The delegation of India opposed this proposal, expressing concern that the species was listed as *Critically Endangered* in the IUCN Red List. Mali and Central African Republic also opposed the proposal, urging South Africa to instead use surplus rhinos to repopulate other countries. Aside from issues of introducing the appropriate subspecies, such operations would have to be funded and the required protection and management would first have to be in place. Nor did these Parties explain how male-only populations set up in other countries would breed. Nepal noted that their concerns regarding this proposal were the same as for the Namibian proposal. Observers from Born Free Foundation, Save Foundation of Australia, and WWF on behalf of WWF and TRAFFIC also opposed the South African proposal.

On account of the majority of Parties speaking in favour of the proposed amended proposal and draft resolution (equivalent to 39 countries for and 4 against) the Chair of Committee I moved that the amended export quota and amended resolution (as applied to South Africa) be approved by consensus, and this was accepted.

Attempt to reopen debate in plenary

Some NGOs, and in particular Save Foundation of Australia, lobbied that the debate on black rhino hunting should be reopened in plenary. Chad proposed that the debate be reopened, but the required third of votes to do so was not obtained with 14 (13.6%) votes in favour of reopening the debate, 89 (86.4%) against and 24 abstentions. This margin was similar to the debates where an equivalent of 49 (87.5%) countries spoke in favour of approving the hunting quotas and only 7 (12.5%) against. Thus the amended Namibian and South African proposals and amended joint resolution were adopted by consensus at CoP 13.

Speculation about the impact of these decisions on poaching

There has been some speculation in the press that these decisions will send a message to poachers and perhaps lead to an upsurge in rhino poaching and widespread slaughter of rhino. It is perhaps worth pointing out that in general trade experts do not feel that this argument is credible. In part this is because as far as the illegal end-user markets are concerned, there is no major distinction between black and white rhino horn when making dagger handles, or when horn is used as an ingredient in traditional Chinese medicine. The main difference is between how Asian rhino horn is viewed, valued and used compared with African horn. The annual export of 10 black rhino trophies will in effect simply add to the existing export of around 70-odd southern white rhino trophies per year. If the controlled export of a few black rhino hunting trophies were going to stimulate rhino poaching, one would have expected this to have happened long before in response to the ongoing export of white rhino trophies.

Trade experts also point out that the dynamics of the controlled export of a limited number of marked and CITES-permitted hunting trophies is not the same as the illegal killing of rhinos in an attempt to supply rhino horn for an illegal demand to make dagger handles and to use in traditional Chinese medicine. Had CITES CoP 13 approved the reopening of a legal rhino horn trade (which it did not) this would have been a very different matter.

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