AFTER I the future of rhino conservation

Below: Najin, one of the last remaining Northern white rhinos, is the daughter of Sudan, who died in March On 19 March this year, the world was shocked and saddened to hear that Sudan, the last male Northern white rhino, a subspecies of <u>white rhino, had di</u>ed.



ind veterinarians euthanised Sudan when age-related infirmities prevented normal movement around his boma.

Emma Pereira Communications Manager

Sudan's last few years had been in the safe hands of the vet and rangers at OI Pejeta Conservancy in Kenya and, at the grand old age of 45, it was testament to their dedication that his eventual death was not due to poaching. However, his death did mark a change for rhino conservation: no natural reproduction would now be possible for this subspecies as it is functionally extinct. While this is unnerving for many of us, it is important to think about what this means for all species of rhino.

Northern white rhinos are one of the two white rhino subspecies. The other – as you may have guessed – are the Southern white rhinos, which can be found in Botswana, Kenya, Mozambique, Namibia, South Africa, Swaziland, Uganda, Zambia and Zimbabwe, with a total population of around 20,000. In comparison, the two surviving Northern white rhinos live in Kenya, but the species once roamed throughout Uganda, Chad, Sudan and the Democratic Republic of the Congo. As recently as 1960, there were still around 2,360 Northern white rhinos, but widespread poaching and civil wars rapidly exterminated wild populations.

Given Sudan's death, the only possible way of bringing Northern white rhinos back from the brink of total extinction is via artificial means, whether IVF, the use of surrogates, cloning or some other Artificial Reproductive Technique (ART). Teams of scientists in San Diego and Berlin are exploring all the options. So are ARTs the solution for Critically Endangered rhino species (and other wildlife) to reduce the risk of extinction or reverse the apparently inevitable?



In conservation there is rarely an appropriate 'one-sizefits-all' approach; there will never be one, single answer. But from every situation, lessons can surely be learnt. The IVF research will surely shed more light on rhino reproduction, but it does not mean that IVF is the be-all and end-all for rhinos everywhere.

To date, ART efforts involving Sumatran rhinos (pictured above) have not succeeded. The only live births have been as a result of natural breeding in the wild, at the Sumatran Rhino Sanctuary in Indonesia, and formerly in Cincinnati Zoo. Both of the latter involved interventions by veterinarians to supplement the mothers' hormones and reduce the incidence of miscarriage, which had previously set back breeding efforts.

The Javan rhino population is – slowly – growing in number on its own, but what it desperately needs is more space to call home. Expanding their habitat should encourage natural breeding by ensuring the land is not too densely populated (research on the African species clearly indicates that breeding performance drops off if the population exceeds 75% of Ecological Carrying Capacity).

Of course, simultaneous efforts to reduce poaching and demand for rhino horn are also essential.

While clearly valuable, the methods for successfully bringing a new Northern white rhino into the world are unlikely to be successfully realised before the last of the two remaining Northern white rhinos die.

At Save the Rhino, we're keen to make sure that other rhino species do not edge closer to the same fate as that of the Northern whites. We hope that Sudan's legacy will be one of raising awareness and stopping other Critically Endangered rhinos from wandering off the public radar and into extinction. We will use every appropriate tool we can to stop this happening, remembering that a unique, tailored approach is needed for each situation.