World's Last Male Northern White Rhino Dies



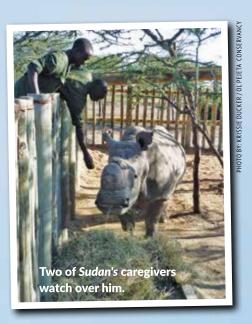
John Nyaga is the editor of Swara Magazine.

he world's last male northern white rhinoceros (*Ceratotherium simum cottoni*), nicknamed *Sudan*, died on March 19 at the age of 45, according to a statement from the Ol Pejeta Conservancy in Kenya, where the much loved pachyderm had lived since 2009.

Sudan was being treated for agerelated ailments that led to degenerative

changes in muscles and bones, as well as extensive skin wounds. As his condition deteriorated, he was unable to stand up and a decision was made to euthanize him.

Probably the most famous male rhino in the world, with a vast social media following, Sudan had appeared in numerous films and documentaries worldwide, including starring in the BBC film with his name, "Sudan, Last of the Last Rhinos." He, and the last known female northern white rhinos Najin and her daughter Fatu "have been symbolic of the fight to save a major charismatic sub-species from extinction in our lifetimes," said Kes Hillman-





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Smith, who has spent the past 38 years working on northern white rhinos and their conservation.

"The loss of dear old Sudan who tore at heart strings by bringing a realisation of the reality to many people, is a huge blow, but we hope it is still not too late to save the sub-species," said Hillman Smith, paying tribute to Sudan.

In the 1970s, Sudan escaped extinction of his kind in the wild when he was moved to Dvůr Králové Zoo in what is now the Czech Republic. Throughout his life, he significantly contributed to the survival of his species, siring two females.

Before he breathed his last, his genetic material was collected and that provides a hope for future attempts at reproduction of northern white rhinos through advanced cellular technologies.

"We on Ol Pejeta are all saddened by *Sudan's* death. He was a great ambassador for his species and will be remembered for the work he did to raise awareness globally of the plight



facing not only rhinos, but also the many thousands of other species facing extinction as a result of unsustainable human activity. One day, his demise will hopefully be seen as a seminal moment for conservationists world wide," said Richard Vigne, Ol Pejeta's CEO.

Sudan's progeny, the daughter Najin

and grand daughter *Fatu*, are now the only of their kind on Earth. They remain at Ol Pejeta. The only hope for the preservation of the northern white rhino now lies in developing in vitro fertilisation (IVF) techniques using eggs from the two females, stored northern white rhino semen from males and



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surrogate southern white rhino females.

The poaching crisis of the 1970s and 80s, fueled by demand for rhino horn in traditional Chinese medicine in Asia and dagger handles in Yemen, wiped out the northern white rhinoceros populations in Uganda, Central African Republic, Sudan and Chad.

The last remaining wild population made up of 20-30 rhinos in Garamba National Park in the Democratic Republic of the Congo succumbed to the effects of civil war in the region during the 1990s and early 2000s. By 2008, the northern white rhino was considered by most experts to be extinct in the wild.

Sudan was born in 1973 in present day South Sudan, in an area that later became Shambe Game Reserve.

In 1975 he was caught with five other young rhinos by the capture team of Josef Wagner, Director and creator of the Dvůr Králové Zoological Garden in the Czech Republic.

In 2009, the last four fertile Northern white rhinos – two males and two females – were moved to Ol Pejeta from Dvůr Králové Zoo, with support from Fauna & Flora International and the



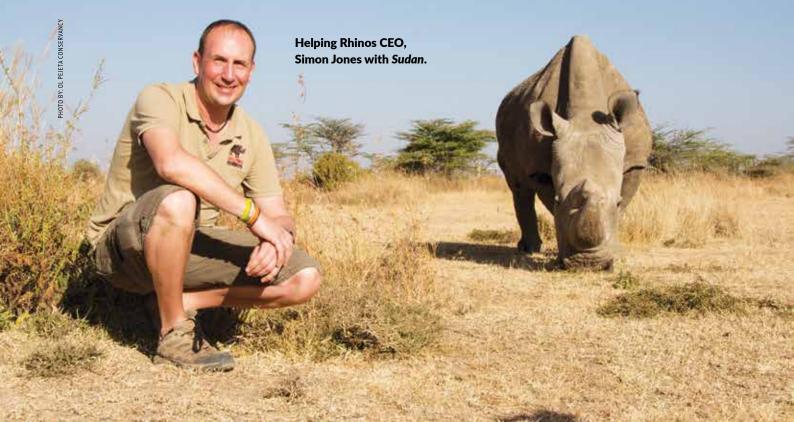
Kenya Wildlife Service. It was hoped that the climate and rich grasslands of the Conservancy, similar to the native habitat of the subspecies, would provide them with more favourable breeding conditions.

On arrival at Ol Pejeta, the four were placed under 24 hour armed surveillance, and fed a supplemented diet. However, despite the fact that they were seen mating, there were no successful pregnancies.

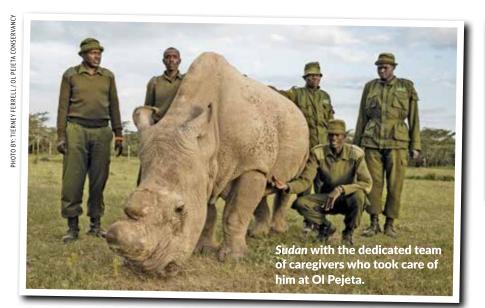
In early 2014, plans to introduce a male southern white rhino to the two female northern whites got under way in the hope that if breeding were successful, the hybrid offspring would at least conserve some of the northern white genes. Again, this proved unsuccessful.

Tests later revealed that neither of the females was capable of natural reproduction, and that only one was fertile enough to conceive artificially.

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The death of the other northern white male, Suni, of natural causes in October 2014, further emphasised the need to urgently come up with alternative solutions.

Scientists are attempting to develop "artificial reproductive techniques" (or ARTs), including IVF to rescue this subspecies.

To that end, Ol Pejeta Conservancy and Dvůr Králové Zoo are now partnering with IZW Berlin, Avantea Cremona, Embryo Plus and the Kenya Wildlife Service to try and conduct the first ever procedure to safely remove egg cells from remaining females, fertilize them with semen previously collected from northern white males, and insert the resulting embryos into female southern white rhinos acting as surrogates. This has never been done before.

"Sudan was the last northern white rhino that was born in the wild. His death is a cruel symbol of human disregard for nature and it saddened everyone who knew him," said Jan Stejskal, Director of International Projects at Dvůr Králové Zoo.

"But we should not give up. We must take advantage of the unique situation in which cellular technologies are utilized for conservation of critically endangered species. It may sound



Sudan mates with Nabire in 1997.

unbelievable, but thanks to the newly developed techniques even Sudan could still have an offspring. We will be happy for everyone who will help us in our joint effort."

The estimated cost of IVF – from the development of the method, to trials, implantation and the creation of a viable breeding herd of northern whites – could be as much as \$9 million. Ol Pejeta and Dvůr Králové Zoo have asked supporters to donate towards this campaign in memory of Sudan, to help raise the funds needed before it is too late.

Visit http://donate. olpejetaconservancy.org/projects/ sudan. Supporters in Britain can donate at www.helpingrhinos.org/ sudan-tribute.

