

Erfurt GERMANY

Thüringer Zoopark Erfurt is one of the few zoos in Europe in which **Southern white rhinoceroses** (*Ceratotherium simum simum*) are regularly bred and reared. The foundation of this successful breeding group was laid with a new rhino house and enclosure and the purchase of two young females ('Numbi' and 'Temba') that arrived from South Africa on 25 November 1998.

With the onset of the oestrus cycle of Numbi, the older female (then 2.5 years old), the bull 'Kiwu' (born 1981) became sexually active for the first time. He had grown up in the company with female 'Kenya', but had never shown any reproductive interest in her. Numbi gave birth to her first calf on 6 December 2001 and to her second calf on 26 September 2004. Both calves were bulls. The inter-birth interval was two years, nine months and twenty days. The female Temba showed her first signs of an oestrus cycle during July 1999. More than twenty copulations with Kiwu were observed, but she did not become pregnant.

Thomas Hildebrandt and his colleagues of the IZW Berlin discovered a 4 cm long polyp on Temba's reproductive organs on 6 June 2003. It was situated at the caudo-ventral cervix and had a cauliflower-like surface. Obviously, the semen could not pass this obstacle. An artificial insemination was planned and done on the same day with semen from the bull 'Dale' of Burgers' Zoo in Arnhem. Although multiple food supplements containing gestagenes and β -carotin were given to support the pregnancy the female aborted after a gestation period of 79 days.

But the procedure was successful in a different way: after further copulations with Kiwu, Temba got pregnant. On 11 June 2005 she gave birth to a bull calf of 61 kg. Unfortunately – being an inexperienced mother – she behaved inadequately. She accepted the calf peacefully but did not let it suckle. The only alternative was to hand-raise it. It was only possible to get 60 ml colostrum milk from the mother. Feeding started with 'Salvana' artificial foal milk but because of heavy diarrhoea was changed to a milk mixture recommended by San Diego Wild Animal Park.



The young bull suffered from diarrhoea for prolonged periods and had skin problems. The epidermal layer gradually came off his entire body, even the foot soles. Apart from the standard veterinary treatments (gruel, yoghurt, parenteral application of antibiotics and sulphonamide drugs, permanent intravenous line with serum electrolytes and oral application of unsaturated fatty acids) a homeopathic therapy was started. Details about the treatment can be obtained from the EAZA website ('Magazine' section). Although suffering from several diarrhoeic periods as well as from an *Urachus fistula* that was detected when he was 11 days old (but closed itself within a few days), the young rhino showed a remarkable will to survive. The zoo visitors have chosen a fitting name for the bull calf: 'Amari' which means 'the one who never gives up'. After 17 days his conditions started to stabilise. Amari accepted solid food in his 15th week.



Newborn rhinos that are suckled by their mothers gain 1 kg body mass per day. It is quite likely that the rate should double with the third month of life. At 143 days of age Amari weighed 228 kg. This is regarded as normal based on the calculation above. Starting 19 October 2005, he was gradually and successfully introduced to the adult females and the bull offspring born 2004. Copulations by Kiwu and Temba were observed on 6 August and 8 September 2005. Currently 3.2 Southern white rhinoceroses live at Erfurt Zoo.