

Semen Collection, Sperm Assessment and Cryo-Preservation in African Rhinoceroses

R. Hermes, F. Göritz, S. Blottner, C. Walzer, F. Schwarzenberger and TB Hildebrandt
Institute for Zoo Biology and Wildlife Research, Berlin, Germany

The captive white rhinoceros population currently faces a demographic crisis. As a consequence substantial knowledge on reproductive biology of the female white rhinoceros has been gathered over the past years. However, little emphasis has been put on the evaluation of male fertility as a possible contributing factor to the low rate of reproduction. In the present study the reproductive fitness of ten male white and one black rhinoceros was evaluated by ultrasonography and semen assessment. Semen collection was obtained by manual stimulation (n=2) and electro-stimulation (n=9). Based on 39 semen assessment results seven males were identified as reliable semen donors. Preserved semen samples remained viable for up to four days. Cryopreserved samples showed post thaw motility suitable for assisted reproduction. Reproductive assessment provided accurate information on the breeding potential of male white rhinoceros with an implication on management decisions.