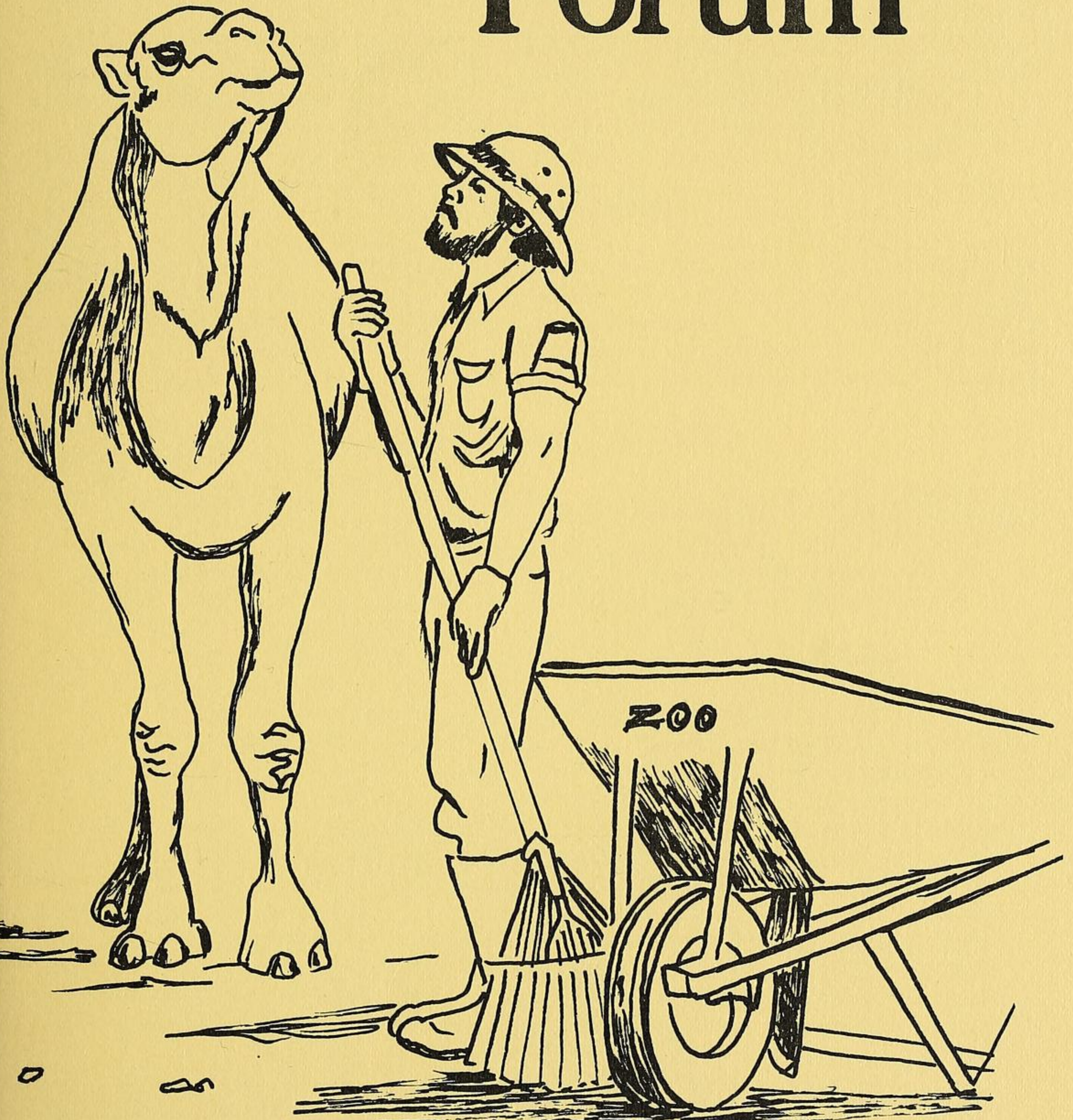


Animal Keepers' Forum



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Dedicated to Professional Animal Care

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conference.....79

Portland, Oregon

THE BIRTH OF
A SOUTHERN WHITE RHINOCEROS *Ceratotherium s. simum*
and
A RETICULATED GIRAFFE *Giraffa camelopardalis reticulata*

by
Michael L. Carpenter
Phoenix Zoo

The 1978-1979 season was outstanding for the Arizona Zoological Society's Phoenix Zoo because of a significant increase in our mammal population due to births. These births included 12 Arabian Oryx *Oryx leucoryx*, an Orangutan *Pongo pygmaeus* and a Desert Bighorn *Ovis canadensis mexicana* among the endangered species. Two Red-Bellied Tamarins *Saguinus labiatus*, a Spider monkey *Ateles sp.*, and four Red Kangaroo *Megaleia rufus* continue the list of exotic species born, while coyotes and domestic goats and donkeys were also included.

Two of the more interesting births occurred during daytime working hours and were carefully observed and photographed. These were a female Southern White Rhinoceros *Ceratotherium s. simum* born November 27, 1978, and a male Reticulated Giraffe *Giraffa camelopardalis reticulata*, born on May 5, 1979. Due to our fortunate photographic documentation of these events and to the intense interest the births generated in our keeper staff this paper will present a brief overview of the birth process in Rhino and Giraffe.

We became aware of the possible pregnancy of our female rhinoceros approximately two months prior to parturition. At that time subtle changes in the animal contours became noticeable to keepers who had experienced previous rhino pregnancies. While we had several probable breeding dates 14 months previous, none were positively identifiable as successful. The first definite signs of an imminent birth occurred on November 26 when the female's udder was noted progressively more distended through the day. At approximately 8:00 a.m. the following day, the female and two males in the exhibit were noted to be very agitated and aggressive toward each other. Closer observation revealed that in fact the female had begun labor and the fetal membranes had ruptured. The males were immediately removed from the exhibit area and what would prove to be a long wait began. At times the female appeared "uncomfortable" standing in unusual positions or briefly lying. However, for most of the next five hours little change could be noted. Finally, at about 1:15 p.m., she reclined near one wall of the exhibit and with an audience of some 80 people, gave birth to a healthy female calf at 1:30.

Within five minutes the female stood and inspected the calf, then she once again lay down near the calf. Within 20 minutes, and after several unsuccessful attempts the calf was standing. After another 20 minute period of testing her legs, the calf found her way to mother and began nursing. The final events of the natal day included a tour of the entire exhibit at mother's heels and sampling a puddle of water. The calf made frequent mewing vocalizations through the afternoon and evening when the animals were bedded with bermuda hay. By November 30 the calf

Rhino Birth and Giraffe Birth, continued

was running and spending some time in a mud wallow with the female. The calf is still nursing and vocalizing, but she is now an 800 pound juvenile and will soon be leaving for Japan.

This birth has several noteworthy aspects, a five hour period from onset of labor to birth, a posterior (rear feet first) presentation, and the occurrence of a White Rhinoceros birth in a non-herd environment. Data on the duration of the birth process in White Rhinoceros is extremely limited and no other information on length of labor was found. Our experience with the type of presentation in rhino birth is limited to this occurrence. Because of the relationship of the rhinoceros to other Perissodactyla which are known to have a head-first presentation, this posterior presentation appears to be quite rare. No other instance of such an occurrence was found in literature.

Finally, while other Southern White Rhinoceros births have occurred in non-herd situations, non-herd birth are far less frequent. In Phoenix, a 17-year-old male, a multiparous 11+-year-old female and her previous offspring, a 6-month-old male, were present at the time of conception of the 1978 offspring. Since parturition there have been a number of copulatory attempts, hopefully one will again prove successful.

On May 5, 1979, our female Reticulated Giraffe gave birth to a healthy male calf after a gestation period of 459 days. While we had been expecting a birth since mid-February, we were forced to settle for the term of a final observed breeding date.

Throughout the morning of the 5th, the female was calm and no unusual occurrences were observed. At 12:30 p.m. however, she was noted to have some vaginal dilation and to be assuming unusual head-down postures. At about 1:50 p.m. the amniotic membranes broke and for the next hour the female was in heavy labor. The apparently normal positioning of the calf was observed; forelegs were first to protrude followed by tongue and nose. As labor contractions continued, the head, neck and forelegs were easily passed, but the shoulder required some period of time. When the shoulders were finally passed, the birth progressed very rapidly and at 2:50 p.m., with a breath-starting six foot drop, the calf was born. The female began immediately to remove the placental membranes; this was accomplished in the next 15 minutes. Both animals spent some time resting and then, after a great deal of leg untangling and repeated attempts, the calf acquired a standing position at 4:00 p.m., one hour and ten minutes after birth. Another 45 minutes were required for a successful nursing, the calf having difficulty adjusting to the proper position and the proper end of mother. After its first success, nursings of less than one minute were common through the afternoon and evening. The calf has continued in excellent health and now at four months of age stands 8 feet tall and is beginning to eat grass, hay and leaves readily.

One unusual aspect of our giraffe birth was the youthfulness of our male. At the time of conception he was only four years old. While the probability of sexual maturity of male giraffe at three and a half years is discussed by Anne Dagg in "The Giraffe" (Von Nostrand Reinhold Co., 1976), information from other sources suggests that 5 to 7 is the normal age at first breeding. Since May our now 5-year-old male and 17-year-old female have had several breeding periods and we are hoping that 14 months in the future we'll see another giraffe birth in Phoenix.

