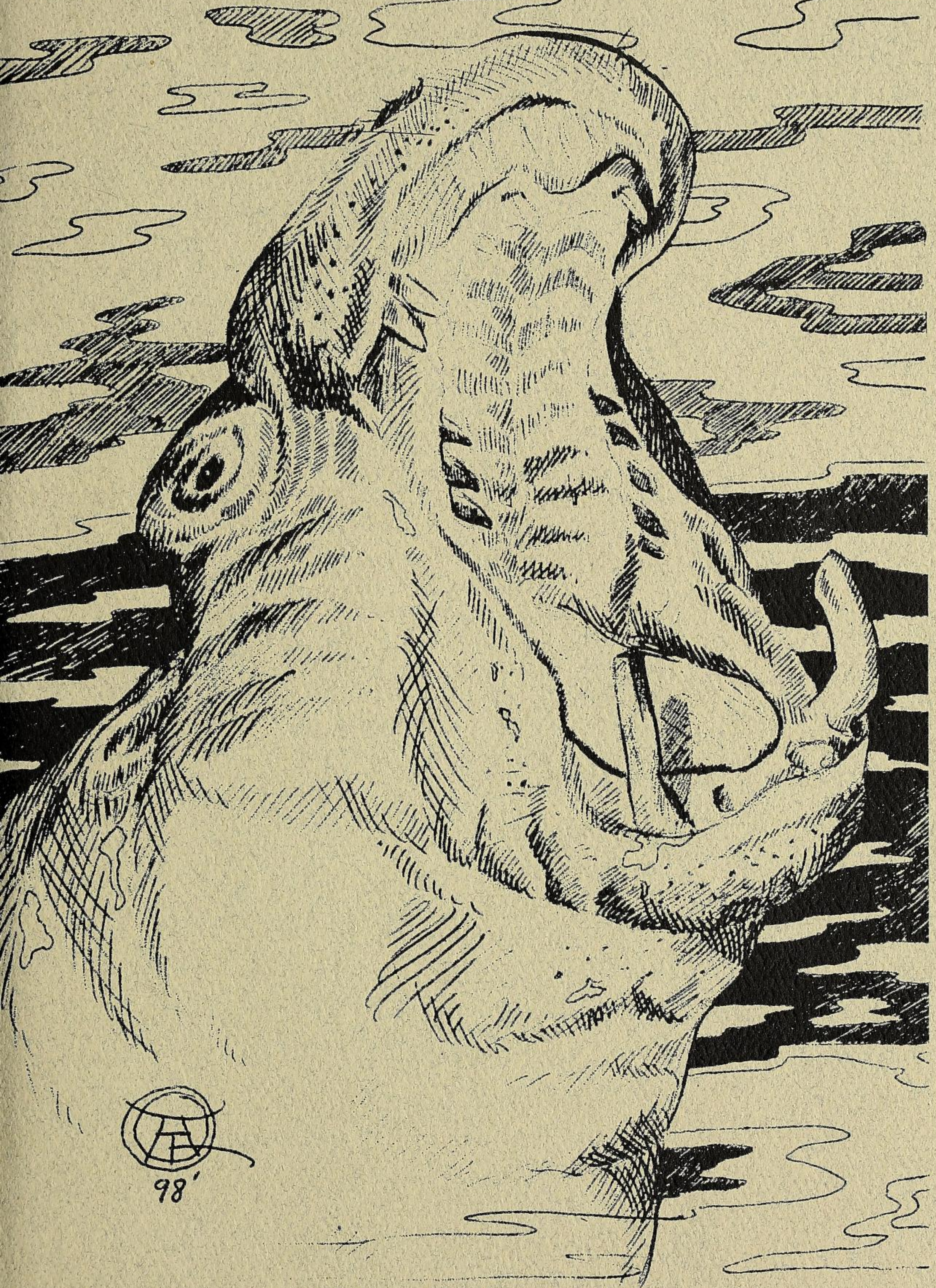


ANIMAL KEEPERS' FORUM



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Significant Behavioral Interaction Between a Reticulated Giraffe

(Giraffa camelopardalis reticulata)
and a Southern White Rhinoceros
(Ceratotherium simum simum)

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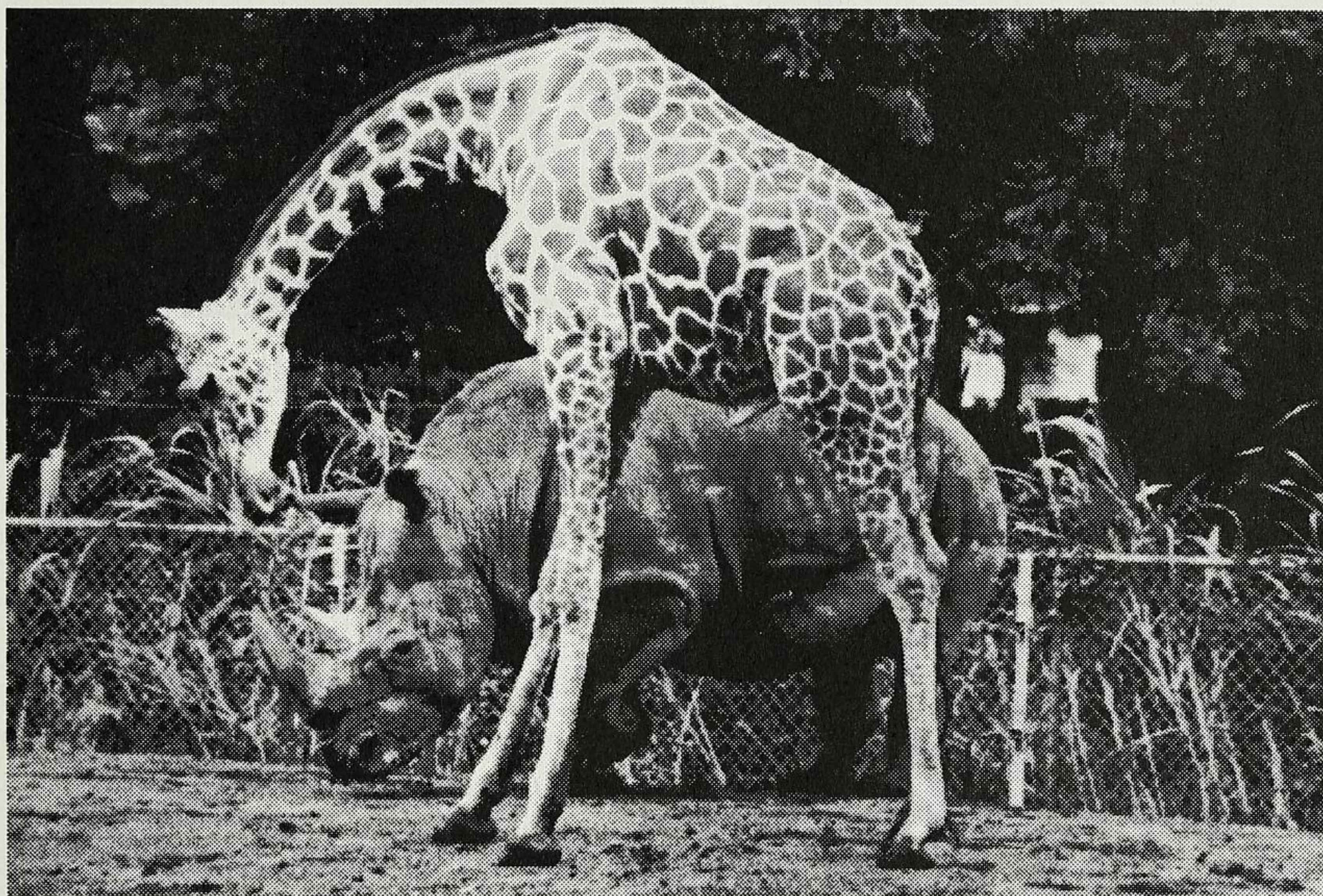
Necking and sparring are behaviors utilized by a giraffe society. These activities have been observed and studied both in wild and captive populations of giraffe. At the Honolulu Zoo there is a multi-species exhibit containing three male and two female giraffe, two ostriches, three zebra and one male white rhinoceros. The two adult male giraffe often display necking behaviors that occur between two and 30 minute sessions. The necking is usually initiated by the younger seven-year-old reticulated giraffe, yet the only blows delivered are from the older 20-year-old bull. The young male exhibits the typical necking behavior as described by naturalist Dorcas MacClintock by retaining a "firm, straddled position to dodge his opponent's headslams." (MacClintock, 1973, pg. 74).

On 8 March 1997 from 1330 to 1345 hrs. an unusual behavioral interaction was observed between the young bull giraffe and his co-habiting, sexually mature male white rhinoceros. The young bull approached the rhinoceros in a submissive posture as described by MacClintock "with his neck stretched and raising his nose in the air." (MacClintock, 1973, pg. 72). This is his usual approaching behavior to initiate necking with the older bull in the herd. The rhinoceros did not react to this gesture and invariably stood still or continued walking throughout the exhibit. Irrelevant of the rhinoceros' movement, the male giraffe followed the rhino until he stopped in a standing position. The reticulated giraffe then began to challenge the rhinoceros by splaying his legs, lowering his head and swinging towards the rhinoceros. Often this behavior resulted in a hard blow to the head or shoulder area of the rhinoceros that could be heard 100 yards across the exhibit. The blows observed were quite unusual due to the fact that this particular giraffe never lands a blow on the other bull giraffe in his herd. Additionally, during the sequence the rhinoceros did not react to this displaying or received blows.

The next morning an observation was made that altered the fate of these interactive sessions. After being approached by the bull giraffe and the subsequent behavior that resulted the day before, the rhinoceros reacted. His behavior included a mock charging and a quick raising of the head. Additionally, loud snorting and a low growl could be heard especially as the giraffe would lower his neck. These interactions continued from 1110 to 1125 hrs., consisting of a challenging necking posture and delivered blows by the giraffe with a

responding typical mock charge and defensive challenge in return by the male white rhinoceros. Social behavior has also been studied in the rhinoceros population, with resulting suggestions by zoologist Malcolm Penny that the "white rhinoceros rarely fight but they often indulge in trials of strength, wrestling with their horns, or charging each other with their shoulders, to settle disputes, and to confirm their social position." (Penny, 1988, pg. 40). For more than two months the bull giraffe approached the rhinoceros two to three times weekly and these interactive behaviors ritually took place.

On 18 May 1997 another twist occurred between these two animals that would temporarily stop the challenging behavior exhibited by the bull giraffe. During a sparring match, the adult male giraffe entangled his legs with the rhinoceros' legs. This chance circumstance caused the giraffe to lose his balance and fall on exhibit puncturing his lower jaw and salivary gland. Fortunately, the male giraffe received immediate medical care and apparently returned to 100 percent health within a month.

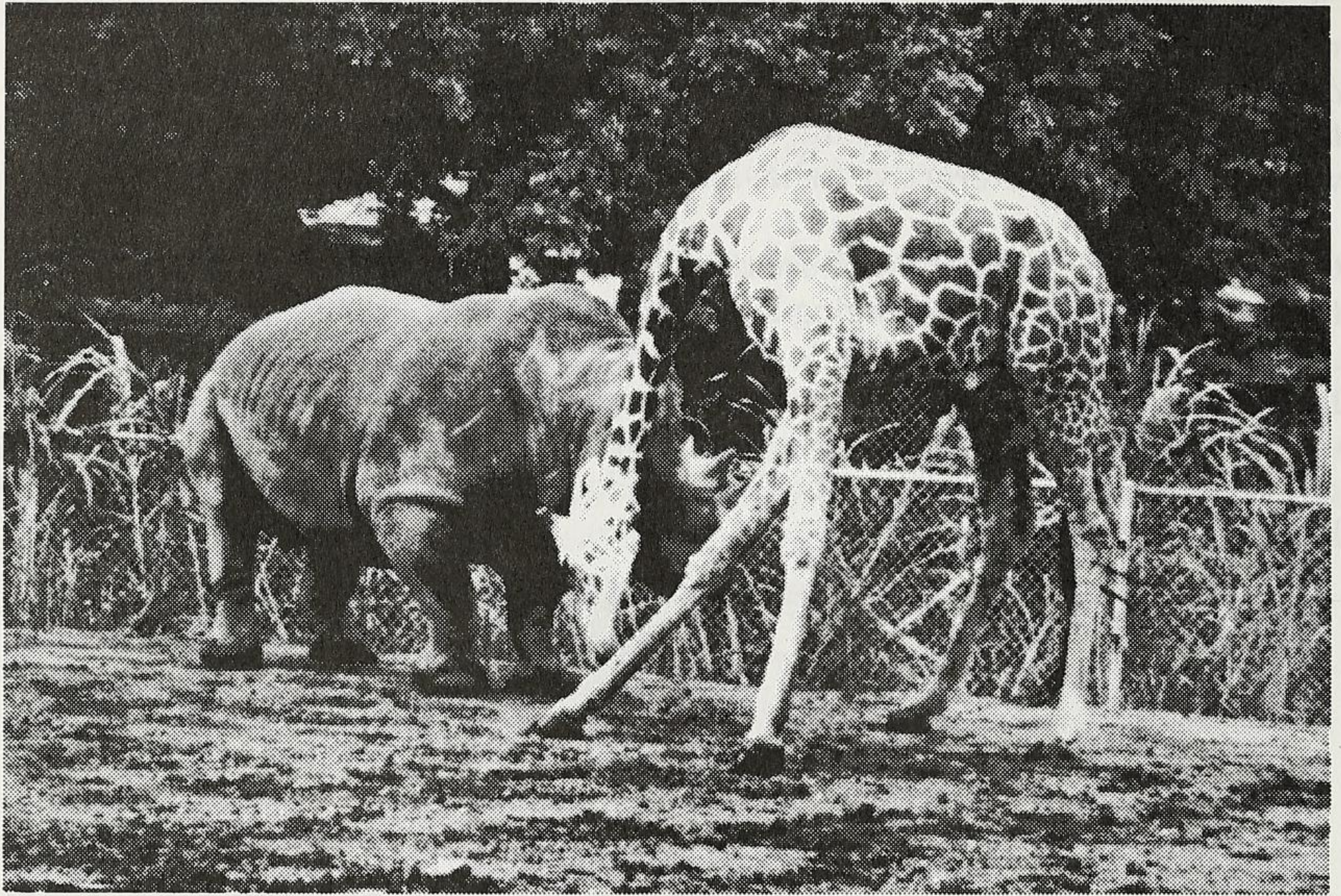


Typical necking posture of the bull giraffe. (Photo by Amy Cutting)

The bull giraffe's behavior upon re-release to the exhibit on 18 June 1997 was interesting. There was initially no more occurrences of challenging behavior initiated by the giraffe. However, the white rhinoceros continued his mock charges and typical defensive posture. In fact, if the giraffe came within ten yards of the rhinoceros the result would be initiated challenge by the rhinoceros with a mock charge resulting in a quick retreat by the bull giraffe.

Often the giraffe, recognizing the behaviors were about to occur, would retreat prior to the developing interaction. These incidences slowly diminished due to

the fact that the giraffe altogether avoided getting within close proximity to the rhinoceros. By September the behavioral interactions between the species had subsided completely.



Head swing and resulting physical contact with the white rhinoceros.
(Photo by Amy Cutting)

However, on 1 January 1998 for an unknown reason the male giraffe began to pursue the rhino. At 1630 hrs. a loud growl was heard coming from the white rhinoceros. Upon investigation of the exhibit the male giraffe was observed standing next to the white rhino in the same challenging position that he had months earlier with his legs splayed and nose pointed in the air. However, instead of the giraffe lowering and swinging his head, he side-stepped in a partially straddled position forcing the white rhino to back away. The giraffe continued his side-stepping towards the rhino eventually causing the rhino to react very defensively. The rhinoceros would mock charge the giraffe, vocalize loudly and often, and raise his head violently towards the giraffe. For 20 minutes the rhino was "pushed" by the giraffe around the exhibit until the rhino was ultimately cornered down a hillside. The rhino finally resorted to aggressive behaviors typical of rhinos. He initiated physical contact and placed his neck, head and horn under the front leg of the giraffe. The rhino lifted and pushed the giraffe out of his way. The male giraffe bellowed loudly and after the white rhino lowered his head from the giraffe, the giraffe quickly ran from the vicinity of the rhino. Upon medical examination of the bull giraffe, a deep puncture wound was found under his right front leg where the rhino's horn had been placed, this injury was close to but did not puncture the abdominal wall.

Curiously, during this event no attempt was made by the male giraffe to deliver a blow to the head or body of the white rhino. In fact, only the beginning of the

necking sequence was repeated throughout the incident. These specimens seem able to recognize the difference in their displaying behaviors and react with challenging behaviors typical of their own species. It is obvious that the rhinoceros learned quickly to respond defensively to the behavior initiated by the giraffe. Also interesting was the fact that the white rhino, even prior to being cornered, seemed to recognize the behavior on 1 January was highly aggressive and reacted with a behavior more typical of a fighting response.

Additionally, from 8 March through 1 January the male rhinoceros only reacted to this bull giraffe and never initiated defensive or aggressive behavior towards the other giraffe in the herd. With medical care, the injured bull giraffe returned again to 100 percent health and has since been re-released onto the exhibit. However, no attempt is currently being made to re-introduce the white rhinoceros with this bull giraffe due to these significant behavioral interactions between the two species. The necking sequences that occurred between the reticulated giraffe and the white rhinoceros proves that captivity offers new insights on researched behaviors.

References

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New York: Charles Scribner's Sons.

Penny, Malcolm (1988). Rhinos Endangered Species.
New York: Facts on File Publications.

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