RHINOCEROS

SANJAY GANDHI BIOLOGICAL PARK, PATNA

by

Dr. A. K. Jha, Dr. J. N. Singh,
Mr. P. R. Sinha & Dr. A. Quasin

Forest being the asset of the Country ensures vital greenary that pleases the eye, attracts rain, checks flood, prevents soil erosion and provides dwelling place for wildlife, With the vital loss of forests the Government had laid down the conservation policy of forest and protection of wildlife. To protect the vanishing rare species of Indian forest animals, the Biological Parks play the vital role where such animals are reared and bred.

With this objective, a pair of Rhinoceros Unicornis Linnaeous (Genda) namely Raju and Kanchhi is being maintained at Sanjay Gandhi Biological Park, Patna. The main habitat of this animal is the Kajiranga forest of Assam in India, though it is also found in swampy grassy and in thick forests and low hills. This species is not gregarious but many heads may be found in the same patch of forest. It's main food is grass, It has a peculiar habit for dropping excreta regularly at the same place. The breeding period of Rhinoceros is throughout the year. The area where a pair is being maintained in the Biological Park, Patna is fenced with crossed wire with one third of the fenced area having deep water from the visitors side.

On an average nutritional requirement for one Rhinoceros per day works out to be 85 Kgs. of green grasses, 8.400 Kgs. of food concentrate (Green 3.5 Kgs. Urad 2.0 Kgs. Peeled banana 2 Kgs. and wheat bran 0.9 Kg.) is also given at noon.

It was observed in the Park that both male and female get into heat occasionally. Text books would say that mating takes place when both male and female get into heat Our experience in the park is that when the female gets into heat, she quite often stimulates the male into heat for mating. Therefore, it is not necessary to conside the heat time of both for the proper mating. Estrus period in She Rhinoceros was observed to be of 42 days instead of 48 days as recorded in the books.

Mating of Raju and Kanchhi was observed on the 5th May, 1985 at Sanjay Gandhi Biological Park, Patna. After eight months of pregnency, Raju was separated. A few days before labour pains Kanchhi's belly was hardly six inches above the ground whereas in normal cases, it remains eighteen inches above the ground. The udder was fully developed. Kanchhi was observed roaming within fenced area all the time. She did'nt prefer to wallow in spite of the better facilities created by reducing the depth of water from eight ft. to two ft. Before the labour pain started, the milk was zooing from both the teats. The labour pain startered at 4 A. M. on the 25th October, 1986. At that time the animal was in a corner of the fence under the shadow of a tree. During labour pain, all the four legs of Kanchhi were extended as if she was stiff carcass. She was trying to expel the calf in full motion. The eyes were full with tears.

During parturition sound was produced and Kanchhi was in unconscious stage after giving birth to a still born calf at 12.55 mid night on the 26th Oetober, 1986. The calf was coated with thick mucous membrane which was removed by manual operation and subsequent cleaning. The question, why the calf was still born. cannot be easily answered. The most likely reason may be that the delivery was abnormal as evident from long period of parturition which extended for about twenty hours instead of normal period of about two hours, It was evident that the oss did not open to the desired extent initially. The calf may have died heating the half open wall of the oss due to expelling force of uterus.

It is obvious that the delivery process of animals which lead an active life during pregnancy will always be brought with risk within the confines of a Zoo or a Biological Park because, in spite of the best efforts, it may not be possible to provid most of the animals with minimum space required for this normal activity and exercise.

The description of still born calf was as follows:

a)	Weight of the calf immediately after birth	...	66.10 Kgs.
b)	Length from nostril to the tip of the tail	...	4'11"
c)	Length of tail	...	1'
d)	Fore limb from shoulder to hoof	...	2'7"
e)	Hind limb from hip to hoof		2'7"
f)	Chest	...	2'11"
g)	Abdomen	...	2'10"

Kanchdi lapped water 20 minutes after parturition. The first feeding after parturition was made with ripe banana followed by 2 Kgs. of soaked gram at 3 A M. About 2 Litres of milk was milked out on the subabool leaves same day. Milking was continued for a week. A delicious food for Kanchhi was prepared each day by boiling 1 Kg. of Ginger, 3 Kgs. of Jagery and 500 grams of Ghee which was fed from the 2nd day till the 15th day parturition. Every day "Callibura and Ostacalcium B12" was given in dose of 200 ml. per day.

Milk collected on the 30th October 1986 in the morning was analysed by the Department of Food Sciences and Technology at Bihar Veterinary College Patna. A. O. A. C. (1975) procedures were followed to analyse the milk of Rhinoceros. The following data were obtained from the analysis of the milk.

Specific gravity	—	1.0362
Percent total solid		10.99
Percent solid not fat	—	9.99
PH	—	6.7
Water	—	89.01%
Protein	—	3.26%
Fat	—	1.0%

On quality evaluation of Rhinoceros milk, no visible sediments were observed. The milk was creamy white in colour with normal appearance, off flavour and sweet in taste.

The above information may provide base for future studies on Rhinoceros breeding, feeding and management.

Dr. A. K. Jha is the an Veterinary Officer at Sanjay Gandhi Biological Park, Patna

Dr. J. N. Singh is an Associate Professor-cum-Head of the Dept. of Food, Science & Technology at Bihar Veterinary College, Patna

Mr. P. R. Sinha is the Director of Sanjay Gandhi Biological Park, Patna

Dr. A. Quasin is Asst. Professor, V. P. H. Bihar Veterinary College, Patna

References:

Association of official analytical chemists

Official methods of analysis

12th Edition, Washington, D. C (1975)

The Book of Indian Animals - Prater, S. H. Bombay Natural History Society.