

SANGAI IN ASSAM STATE ZOO

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The rare thamin or Eld's deer sometimes called brow-antlered deer of southern Asia, has most unusual antlers. They are divided into three races, distinguished mainly by the differences in the construction of the antlers. They are *Cervus eldi thamin*, found in Burma and Tenasserim is not at present in danger of extinction. Schomburgk's deer, of Thailand, a deer which is closely related to the thamin, appeared to have become extinct between 1932-1939.

Cervus eldi siamensis was formerly abundant from southern Thailand and Cambodia, through Laos and Vietnam to Hainan. The population are now greatly reduced in all areas except in parts of Cambodia *Cervus eldi eldi* is found in Manipur is now so rare, that its survival is giving cause for concern. It estimated that the present population is about 137 and confined in the southwestern part of Logtak Lake in Manipur. This deer become very rare in the wild but safe in captivity.

This beautiful deer is nearly 4 ft.(120 cm) high at the shoulder. The hinds are smaller. The maximum length of the antlers is 42inch (107 cm) from the tip of the browline along the curve to the extreme. The record (in Burma) is 44½ inch(133 cm). Very occasionally a spatulated type is found with main beam flattened.

HISTORY OF SANGAI AT ASSAM STATE ZOO

Assam State Zoo acquired 1M+2F from Mysore Zoo on 21.01.85. They are named Ganesh, Menaka and Minakhi. Minakhi was killed by a wild leopard on 3.06.85. The remaining pair bred successfully at Guwahati. The first birth took

place on 1.12.86, a male fawn but it died due to traumatic injury on 11.12.86 just after 10 days. On 14.10.87 another male was born. In the beginning of the 1995-96 the sex ratio was 3 : 7 on 95. Table 1 shows the stud book information of the species in Assam state zoo and details of births and deaths are given in Table 2.



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Table 1. Stud book details of Brow-antlered deer (Sangai) population in Assam state zoo.

Stud book No.	Stud book name	Sex	Birth		Parentage		Mode of Acquisition with date	Death		Remark
			Date	Place	Sire	Dam		Date	Cause of death	
1	Ganesh	M	-	-	-	-	from Mysore Zoo on 21.1.85	-	-	Alive
2.	Minakhi	F	-	-	-	-	-do-	03.06.85	Killed by Leopard	Alive
3.	Menaka	F	-	-	-	-	-do-	-	-	
4.	Kartik	M	01.12.86	A.S.Zoo	Ganesh	Menaka	-	-	-	
5.	Kamal	M	14.10.87	A.S.Zoo	Ganesh	Menaka	-	11.12.86	Due to traumatic injury	Alive
6.	Keshav	M	25.11.88	A.S.Zoo	Ganesh	Menaka	-	05.09.90	Escaped from enclosure	Alive
7.	Kanti	F	23.11.89	A.S.Zoo	Ganesh	Menaka	-	-	-	Alive
8.	Radha	F	12.01.91	A.S.Zoo	Ganesh	Menaka	-	-	-	Alive
9.	Krishno	M	28.11.91	A.S.Zoo	Ganesh	Kanti	-	19.03.93	Infighting between F& son	Alive
10.	Bhisma	M	28.11.92	A.S.Zoo	Ganesh	Menaka	-	-	-	Alive
11.	Krishna II	M	15.02.93	A.S.Zoo	Ganesh	Kanti	-	-	-	Alive
12.	Banti	F	23.12.93	A.S.Zoo	Ganesh	Menaka	-	-	-	Alive
13.	Janti	F	1.1.94	A.S.Zoo	Ganesh	Kanti	-	-	-	Alive
14.	Ginti	F	29.11.94	A.S.Zoo	Ganesh	Kanti	-	-	-	Alive
15.	Ronti	F	3.2.94	A.S.Zoo	Ganesh	Radha	-	-	-	Alive

Present stock-10 (Male:3; Female:7) Original stock: 3 Nos., Breeding: 12 Nos.

The topography of sangai enclosure are hilly terrain of about 5,000 sq.mts of open area with periphery brick-wall and chain link netting. A small spring flowing (perennial) along the northern side of the enclosure, from which they got a small portion of swampy areas for wallowing. Although zoo animals are not in a natural settling, they nevertheless can aid in our understanding of behaviour.

Though the death rate is very low in Assam State Zoo till now, the inbreeding problem already started. Dam, Sire and birth interval are shown in Table 3. As the original stock of Sangai in Assam State Zoo are from Mysore Zoo, it is applicable to introduce a different bloodline i.e., of Delhi or Calcutta. Assam State Zoo has already proposed for exchange of animals with Delhi Zoo. Central Zoo Authority of India has accepted the proposal of exchange 1:1 Sangai in lieu of 1:2 Leopard cat.

As populatiopn increased in Assam state zoo, a new enclosure should be constructed to separete the present stock with the new arrival for maintaining gene pull and stop infighting problem. The cause of death in Assam State Zoo was shown in Table 4.

ACKNOWLEDGEMENT

The author is grateful to Mrs. R. Sharma W.R. and E.O., Assam State Zoo and F.V.O Dr. T. Borthakur for providing valuable suggestions.

Table 2. Birth and deaths of Sangai in Assam State Zoo

Year	Sex-ratio at the year end	Breedable F during breeding season	Births	Birth Rate %	Death	Total Strength	% of death
1985-86	1M+2F	1F	-	100	1F	2	33.33%
1986-87	1M+1F	1F	1M	100	1M	2	33.33%
1987-88	1M+1F	1F	1M	100	-	3	-
1988-89	2M+1F	1F	1M	100	-	4	-
1989-90	3M+1F	1F	1F	100	-	5	-
1990-91	3M+2F	1F	-	-	2M	3	40 %
1991-92	1M+2F	2F	1M+1F	100	-	5	-
1992-93	2M+3F	2F	2M	100	-	7	-
1993-94	4M+3F	2F	2F	100	1M	8	11.11%
1994-95	3M+5F	3F	2F	66.66	-	10	-

Table 3 (a). Birth interval from Ganesh and Menaka

Date of Birth	Stud Book Name	Birth Interval	Remark
01.12.86	Kartik (M)	First Birth	Died (injury)
14.10.87	Kamal (M)	10 M 14 days	Escape
25.11.88	Keshav (M)	13 M 11 days	Died (internal bleeding)
23.11.89	Kanti (F)	11 M 28 days	Alive
12.01.91	Radha (F)	11 M 22 days	Alive
28.11.92	Bhisma (M)	21 M 16 days	Alive
23.12.93	Banti (F)	12 M 25 days	Alive

Table 3(b). Birth interval from Ganesh and Kanti

Date of Birth	Name	Birth Interval	Remark
28.11.91	Krishno (M)	First Birth	Due to infighting
15.02.93	Krishno II (M)	13 month 18 days	Alive
01.01.94	Janti (F)	10 month 17 days	Alive
29.11.94	Ginti (F)	10 month 29 days	Alive

Table 3(c). Birth from Ganesh and Radha

Date of Birth	Name	Sex	Birth Interval	Death	Remark
03.02.94	Ronti	F	First Birth	-	Alive

Table 4. Analysis of cause of death at Assam State Zoo of Sangai from 1985 to 1995

Cause of death	No	Percentage
Escape from enclosure	1	20%
Killed by Leopard	1	20%
Infighting	3	60%

Total death : 5