Census of Sangai and other wild animals (1999-2000) at Keibul Lamjao National Park, Manipur

Report on population estimation of Sangai and other animals in Keibul Lamjao National Park held on 17th March 2000. Forest Department of Manipur.

1. Introduction

Keibul Lamjao constituted as a National Park on 28.3.1977 covers an area of 40 sq. km. Out of this one third (approximately 14 sq. km.) is either wetland or water body. The remaining two third, i.e. about 26 sq.km. are the habitat area of Sangai in the National Park. Further, about one third of the habitat area is the core zone. Inside the National Park there are three hillocks, namely – Pabotching , Toyaching and Chinglukok which are hard grounds available for taking shelter by Sangai deer during the night, while the rest being under Phumdi with floating biomass and habitat of Sangai.

2. The past population status of Sangai, immediately before declaring as National Park, was a mere 14 (fourteen) which was thought to be touching the biological minimum. Ever since declaring the area as National Park in 1977, intensive conservation, protection and habitat development measures were taken up by the Manipur Forest Department. To assess the status of Sangai in the park, every year the Department undertakes population enumeration/estimation in order to observe the population trend of Sangai alongwith other associate animals such as Hog Deer, Wild Boar and to assess the effectiveness of the protection measures taken up by the Department.

3. The detail of the past census report both aerial and ground are as below

4. Field Preparation for Population Estimation

For the purpose of estimation of Sangai population, the habitat area covering about 26 sq.km. was divided into 24 compartments. Each compartment is demarcated with natural feature or cleared strips for proper identification of compartment boundary and for easy allotment of the same to enumerators. In order to facilitate counting, fireline cutting was carried out over a length of 16,000 R.M. where the animals come out for grazing. The remaining areas are also brought under control burning at selected locations for easy location of the animals inside. Each compartment is provided with observation post which can accommodate 2/3 enumerators.

5. Pre-census exercise

All enumerators were briefed on 15/3/2000 i.e. two days in advance regarding identification of animal, sex of the animal, recording of observations, precautions to avoid double counting of animals and most important the absolute necessity to maintain silence during the counting etc.

6.Selection of enumerators

7. Enumeration operation :

The census operation was personally supervised on the day of the census by Shri Th. Priyobor Singh, Chief Wildlife Warden, Govt. of Manipur. The actual counting was carried out from 6.00 a.m. to 10.00 a.m. by 24 enumeration parties, each party being assigned one compartment with one observation post. The counting period was divided over 8(eight) slots covering 30 minutes. Each party was provided with a data sheet, which was handled by the party leader for proper compilation and analysis by the Chief Wildlife Warden, Manipur.

8. Population estimation

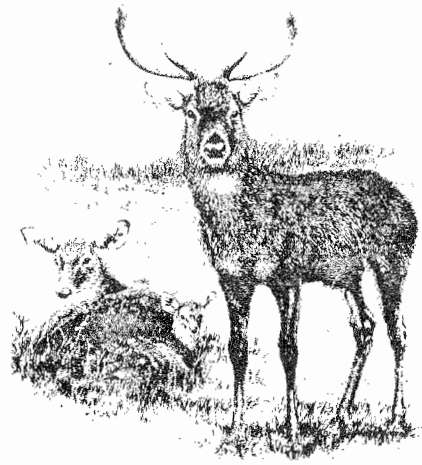
9. Total population count

Sangai (Cervus eldi eldi)

Stag (Male)	54	(fifty four)
Hind (female)	76	(seventy six)
Fawn	32	(thirty two)
Total	**162**	**(one hundred sixty two)**

Associated animals

Hog Deer (Axis porcinus)	144
Wild Boar (Sus scrufa)	26
Shadung	1



Year	Type of census	No. of Animals			Total
		Stags	Hinds	Fawns	
1	2	3	4	5	6
1975	Aerial				14
1977	do	6	8	4	18
1978	do	9	10	4	23
1979	do	9	13	8	30
1984	Ground	20	25	6	57
1985	do	22	33	5	60
1986	do	44	45	6	95
1987	Aerial	11	17	7	35
1988	do	20	25	7	52
1989	do	25	29	12	64
1990	do	29	35	12	76
1991	Ground	37	51	16	104
1992	Aerial	21	32	9	62
1993	do	38	48	12	98
1994	Ground	36	65	16	137
1995	do	58	69	25	152
1996	do	57	65	21	143
1997	do	58	72	17	147
1998	do	56	62	28	146
1999	do	63	61	25	149