

handled could not curl up like the adults. It was rejected by the mother on the 4th day, and died the next day.

There is no mention of weight, size and condition of the eyes of the new-born young in the available literature. There are records of birth of this species in India in July (Prater 1971, BOOK OF INDIAN ANIMALS) and in November (Asdell 1964, PATTERNS OF MAMMALIAN REPRODUCTION).

VET. ASST. SURGEON,
NANDANKANAN ZOO,
P.O. BARANG, (CUTTACK).

L. N. ACHARJYO

WILD LIFE CONSERVATION OFFICER,
ORISSA, CUTTACK-1,
January 5, 1972.

R. MISRA

4. SOME OBSERVATIONS ON DISTRIBUTION OF ZOO BIRTHS AMONG COMMON WILD MAMMALS¹

Acharjyo (1970) noted birth weight, size, gestation period, litter size, etc., of some common wild mammals maintained at the State Biological Park, Nandankanan (Orissa). In this paper monthwise distribution of zoo births among twelve species of wild mammals observed at the State Biological Park, Nandankanan (Orissa) during the past nine years and five months (from 29.xii.60 to 31.v.70) are reported.

OBSERVATIONS AND DISCUSSION

1. Spotted Deer (*Axis axis*)

A total number of 110 births (59 ♂♂, 51 ♀♀) have been recorded here as follows. January, 10; February, 28; March, 22; April, 12; May, 13; June, 1; July, 6; August, 3; September, 2; October, 4; November, 3; and December, 6. From this it appears that there is a definite concentration of births in the months of February and March.

According to Crandall (1964) fawns may be born at any season and the distribution of 225 births at New York Zoological Park was as follows: January, 8; February, 15; March, 30; April, 21; May, 30; June, 25; July, 27; August, 16; September, 18; October, 17; November, 17; and December, 1. Asdell (1964) states that in Ceylon young are born throughout the year but the majority at the beginning; at Woburn most fawns are born between Christmas and Easter and in London Zoo

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births were evenly distributed throughout the year. Fawns may be seen at any season (Prater 1965). Fawns of all ages and sizes can be found at all times (Walker *et al.* 1964).

2. Indian Sambar (*Cervus unicolor niger*)

The 35 births (14 ♂♂, 21 ♀♀) recorded here were distributed almost evenly throughout the year except May as follows : January, 1 ; February, 2 ; March, 1 ; April, 2 ; June, 5 ; July, 2 ; August, 5 ; September, 4 ; October, 5 ; November, 3 ; and December 5.

According to Crandall (loc. cit.) births in captivity may occur at any season and distribution of 41 births of New York Zoological Park were as follows : January, 2 ; March, 1 ; April, 4 ; May, 6 ; June, 5 ; July, 4 ;

August, 2 ; September, 5 ; October, 7 ; and November, 5. Asdell (loc. cit.) states that in London Zoo births have been spread throughout the year with a peak at the end of May and at Woburn fawns were dropped at any time of the year. Young are born at the commencement of rains ; in late May or early June (Prater, loc. cit.).

3. Barking Deer or Muntjac (*Muntiacus muntjak*)

The birth of 51 fawns (25 ♂♂, 26 ♀♀) were spread almost evenly throughout the year as follows : January, 4 ; February, 5 ; March, 2 ; April, 5 ; May, 5 ; June, 4 ; July, 4 ; August, 4 ; September, 7 ; October, 3 ; November, 4 ; and December, 4.

Crandall (loc. cit.) citing Blanford (1888-91) states that the young are usually born in June or July though some may be produced throughout the year. In London Zoological Gardens 30 births of Indian Muntjac were distributed through every month of the year except January (Zuckerman 1953). Prater (loc. cit.) states that births occur at the beginning of rains. Young are born in July and August in north of India (Asdell, loc. cit.).

4. Hog Deer (*Axis porcinus*)

Four premature births recorded here were as follows : March, 1 ; May, 1 ; and October, 2.

According to Crandall (loc. cit.) the 32 births at New York Zoological Park were distributed throughout the year except in August and December. Births all the year have been recorded in London Zoo (Asdell, loc. cit.). Prater (loc. cit.) states that young are dropped in April, May and during the rains. Fawns of all ages and sizes can be seen at all times (Walker *et al.*, loc. cit.).

5. Black Buck (*Antilope cervicapra*)

Eleven births recorded in this Park were as follows : January, 2 ; February, 2 ; March, 1 ; May, 3 ; and September, 3.

According to Crandall (loc. cit.) 97 young born at New York Zoological Park were distributed throughout the twelve months of the year with minimum of one young in January and the maximum of 13 young in June. Asdell (loc. cit.) states that in London Zoo births were evenly distributed throughout the year.

6. **Nilgai** (*Boselaphus tragocamelus*)

Five births recorded in this Zoo were distributed as follows : January, 1 ; February, 2 ; and March, 2.

Crandall (loc. cit.) states that 8 births of New York Zoological Park were scattered from January to November. Sixty-one births at the Zoological Garden, London, occurred in every month, (Zuckerman, loc. cit.). The young are produced at all seasons (Prater, loc. cit.).

7. **Indian Wild Boar** (*Sus scrofa cristatus*)

Births of 6 litters in this Zoo were scattered from April to October as follows : April, 2 ; May, 3 ; and October, 1.

The majority of young are born shortly before and shortly after the rains in Central India (Prater, loc. cit.).

8. **Bonnet Macaque** (*Macaca radiata*)

Three births were recorded in the month of June, 1 ; July, 1 ; and August, 1.

Prater (loc. cit.) states that whether there is a marked breeding season is not known.

9. **African Lion** (*Panthera leo*)

Births of three litters were recorded as follows : February, 1 ; March, 1 ; and June, 1.

In the Gir forest of India, lion cubs are produced between January and February (Prater, loc. cit.). It has no fixed breeding season and is polyestrous (Asdell, loc. cit.). It is polygamous and breeds throughout the year (Walker *et al.*, loc. cit.).

10. **Tiger** (*Panthera tigris*)

Two litters were born here with one in July and the other in December.

One tigress at the New York Zoological Park produced eleven litters as follows : May, 8 ; June, 1 ; and November, 2 (Crandall, loc. cit.). Asdell (loc. cit.) states that in London Zoo, births have occurred at any time of the year but mostly from June to August. In India majority of young are born between February and May (Prater, loc. cit.).

11. **Leopard** (*Panthera pardus*)

Five litters born here were scattered as follows : April, 1 ; May, 1 ; June, 2 ; and December, 1.

Crandall (loc. cit.) citing Zuckerman (loc. cit.) reported that the 27 births at the London Zoological Garden during 1839 to 1937 occurred in every month except January. In India most births occur in April and in London Zoo births have been distributed throughout the year (Asdell, loc. cit.). Panther breeds all the year round (Prater, loc. cit.); Walker *et al.*, (loc. cit.).

12. Common Mongoose (*Herpestes edwardsi*)

Two litters were born, one in April and the other in July.

This has no regular season (Asdell, loc. cit.). It breeds all the year round (Prater, loc. cit.).

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VET. ASST. SURGEON,
STATE BIOLOGICAL PARK,
NANDANKANAN, P.O. BARANG,
DIST. CUTTACK.

L. N. ACHARJYO

WILD LIFE CONSERVATION OFFICER,
ORISSA,
CUTTACK-1.
April 6, 1971.

G. S. PADHI

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5. THE GREY PARTRIDGE (*FRANCOLINUS PONDICERIANUS*) IN THE BOMBAY KONKAN

In Vol. 68 (1) page 267 we had listed the recovery of a Grey Partridge at Kalyan, Thana Dist. The Grey Partridge does not occur in the Bombay Konkan, below the ghats and the bird in question was one of twenty-eight illegally captured by a trapper in an undisclosed locality



Acharjyo, L N and Misra, R. 1972. "Some Observations on Distribution of Zoo Births Among Common Wild Mammals." *The journal of the Bombay Natural History Society* 69, 175–178.

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