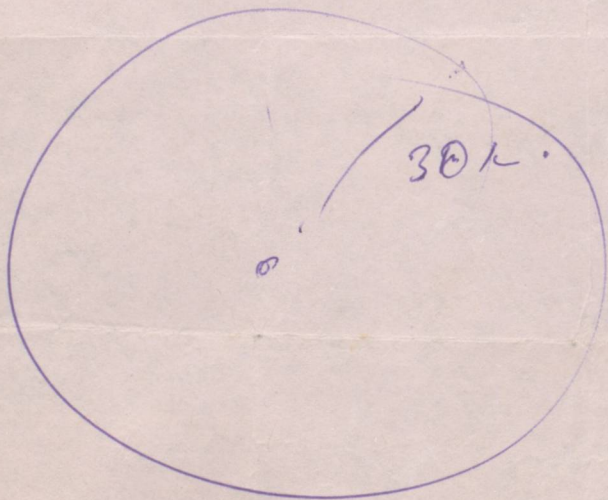


BAR SING SAR

24 km SW of Bikaner



Herd Composition  
Swampdeer. Dudhwa 1988

Date	Size	♂	♀	Y	
15/3	8	-	6	2	
15/3	5	1	3	1	
16/3	1	1	-	-	
17/3	2	2	-	-	
17/3	27	7-8	19-20		
18/3	49	24	<del>15</del>	<del>10</del>	♀+Y = 25   most of old antlers 2 just shed & 2 in velvet
19/3	32	17	♀ 12	3	
20/3	61	21	<del>25-32</del> 30-32	8-10	
21/3	3	-	♀ 2	♂ 1	
22/3	7	6	1	-	
22/3	7	-	6	1	
22/3	3	-	3	-	
23/3	call	6	♂ 4	1	
24/3	40-45	8-10	32-35		
<del>24/3</del>	<del>18</del>	6	9	2	most of imm
24/3	10	1	9		
24/3	6	-	5	1	
24/3	3	-	2	1	
25/3	2	2	-	-	no antlers.
26/3	3	1	1	1	
26/3	81	31	6 antlers	10-12	♀ = 38-40
26/3	12	4	8		
27/3	14	3	9	2	
27/3	6	2	3	1	
28/3	7	1 imm	6	-	
28/3	53	17-18	35-36		
28/3	4	4	-	-	
29/3	3	-	2	1	
29/3	5	-	5		
30/3	8	-	8		
30/3	29	<del>8</del>	15	6	
31/3	30	18	12		
1/4	59	28	31		+ 31/3 1 of S.D.
1/4	6	2	4	-	+ 1/4 2 of S.D.
1/4	3	-	2	1	
1/4	4	3	1	-	
2/4	8	3	4	1	
2/4	2	2	-	-	
2/4	10	4	5	1	
3/4	2	-	2	-	
4/4	12	-	2	-	

Date	Size	♂	♀	Tomy	
5/4	5	5	-	-	
5/4	17	5	12		
6/4	7	1 imm	6	-	
6/4	4	1	3	-	
7/4	2	-	2	-	
7/4	2	-	1	1	
7/4	4	-	3	1	these 2 joined together
7/4	2	-	1	1	
7/4	1	-	1	-	
8/4	1	1	-	-	
17/4	18	-	18		
17/4	26	-	18	8	
18/4	10	3	7		
20/4	18	1 ♂	17		
20/4	1	1 ♂	-	-	
20/4	1	1	-	-	
21/4	3	1	2	-	
22/4	5	2	2	1	
22/4	5	-	5		
22/4	1	-	1	-	
25/4	23	7	16		
25/4	14	1	13		
26/4	14	4	10		
26/4	51	14-20	31-32		
27/4	35±	13-14	21-22		
<del>27/4</del>	11	-	11		
27/4	2	-	1	1	
28/4	1	-	1	-	
29/4	2	-	1	1	
29/4	2	-	1	1	
29/4	6	-	3	3	
29/4	1	-	1	-	
29/4	1	-	1	-	
1/5	18	8	10		
1/5	5	3	2	-	
2/5	9	3	9		
3/5	9	-	9		
5/5	13	5	8		ten joined some ♂s.
7/5	2	2	-	-	
8/5	2	2	-	-	
9/5	3	1	1	1	
9/5	1	-	1	-	

size

Date	<del>♂</del>	♂	♀	Y
10/5	4	4	-	-
11/5	2	1	1	-
11/5	2	1	1	-
11/5	9	5	4	-
12/5	9	-	9	-
12/5	8	1	7	-
13/5	45	-	45	??
13/5	7	-	7	-
13/5	42	1	41	-
13/5	27	2	25	-
16/5	6	-	6	-
16/5	7	4	3	-
16/5	4	3	1	-
16/5	1	1	-	-
17/5	6	1	5	-
18/5	2	-	2	-
18/5	1	1	-	-
18/5	5	3	2	-
20/5	13	2	11	-
20/5	7	-	7	-
20/5	29	8	13	8
20/5	9 13	-	9 4	4
21/5	1	-	1	-
21/5	12	6	6	-
21/5	1	-	1	-
22/5	4	4	-	-
22/5	1	-	-	1
22/5	9	9	-	-
22/5	12	-	12	-
23/5	1	-	1	-
24/5	2	1	1	-
24/5	13	1	12	-
24/5	2	-	1	1
25/5	19	6	13	-
25/5	3	-	3	-
25/5	7	-	7	-
26/5	3 2	15	10	7
26/5	1	-	1	-
28/5	3	3	-	-
29/5	16	-	16	-
29/5	2	1	1	-
30/5	26	4	22	-
2/6	7	3	4	-
2/6	1	-	1	-

109 with outliers.

Date	Size	♂	♀	Y
2/6/26	16	3	9	4
2/6	1	-	1	-
3/6	2	2	-	-
3/6	9	1	18	-
3/6	7	-	17	-
3/6	1	1	-	-
3/6	2	1	1	-
3/6	14	2	12	-
3/6	4	-	4	-
5/6	3	-	3	-
5/6	1	-	1	-
5/6	3	-	3	-
5/6	1	-	1	-
5/6	7	2	5	-
6/6	10	-	10	-
7/6	1	-	1	-
7/6	1	-	1	-
7/6	3	-	3	-
7/6	11	-	11	-
7/6	3	-	2	1
7/6	1	-	1	-
8/6	10	-	10	-
8/6	14	2	12	-
8/6	1	-	1	-
8/6	1	-	1	-
8/6	1	-	01	-
9/6	7	1	16	1
13/6	1	-	1	-
14/6	1	-	1	-
14/6	3	-	3	-
14/6	1	01	-	-
15/6	17	3	14	-
15/6	35	3	32	-
15/6	45	2	43	-
17/6	1	-	1	-
19/6	1	-	1	-
20/6	4	-	4	-
20/6	6	-	6	-
20/6	3	-	3	-
20/6	6	-	6	-
20/6	1	-	1	-

dispersed slightly

Week	♂	♀	a.s
23-29 Jan	0		1
30-5 Feb	0	0	0
6-12 Feb	1	-	-
13-19 Feb	-	1	-
20-26 Feb	-	-	-
27-4 March	-	-	-
5-11 March	1	1	-
12-18 March	2	-	-
19-24 March	-	-	-
24-31 March	1	-	-
1-7 April	-	1	-
8-14 April	1	-	-
15-21 April	2	-	-
22-28 April	-	2	-
29-4 May	-	2	-
5-12 May	-	-	-
13-19 May	2	-	-
20-26 May	-	4	2
27-3 June	1	2	-
4-10 June	-	9	-
17-20 June	1	5	-

Averages 1988	1980
Feb = 17.11	38.7
March = 22.78	32.6
April = 26.39	29.6
May = 18.69	19.3
June = 13.30	16.9

Fawns 1988 1979-80.  
 37.14% of ♀ had >1yr fawns | 27.58% of ♀ ~~yearly~~

$$\frac{411}{829} \times 100 = 37.51$$

369

♀	Y	♀	Y	♀	Y	♀	Y
7	3	2	-	8	3	15	6
7	3	13	5	41	13	4	-
8	3	15	9	10	6	2	1
4	2	16	8	1	-	1	-
18	7	35	11	13	7	4	1
3	1	19	5	10	4	-	-
6	3	14	6	10	4	5	1
1	1	2	1	12	4	2	-
1	1	4	-	28	10	7	2
1	-	6	5	6	2	6	-
2	1	4	2	6	2	3	-
2	2	8	3	3	1	<del>2</del>	<del>1</del>
3	1	6	2	12	3	1	-
3	2	2	-	30	10	1	1
9	5	5	3	2	1	3	1
11	4	3	1	1	-	18	8
28	10	5	3	6	1	2	1
25	10	3	1	3	-	824	306
9	2	1	1	4	1	37.14%	
12	4	8	1	9	2	1	1
4	3	3	1	5	1	1	1
3	1	7	2	2	1	3	3
12	5	13	5	1	1	37.51%	
4	1	6	2	38	12		
7	4	14	7	9	2		
7	2	14	7	3	1		
15	8	13	7	6	-		
6	2	10	2	2	1		
		(469)					

♂	♀+Y	D/M/D
<del>10</del>	10	
-	10	
1	15	M.D
-	11	
6	6	
3	-	
21	39	M.D
<del>4</del> 5	9	M.D
-	25	
4	4	
1	<del>15</del> 15	M.D
7	<del>6</del> 9	
9	29	M.D
10	-	
2	23	M.D
-	2	
3	14	M.D
	2	
	1	
10	25	M.D
3	3	
1	4	
10	52	M.D
4	-	
	26	M.D
	4	
4	14	M.D
1	5	
	14	
10	15	
2	38	
<del>3</del> 2	35	
1	11	
1	16	
1	7	
	4	
1	17	
1	11	

525

♂	♀+Y	M.D.
3		
	9	
1	23	
	8	
	2	
14	86	M.D.
1	18	
3	24	
12	26	M.D.
3	24	
10	46	
13	24	
	28	M.D
3	28	M.D
1	20	
14	64	M.D.
	3	
	4	
20	47	M.D
15	48	M.D
	11	
6	6	
<del>19</del> 6	11	
7	8	
	18	M.D
7	8	
	4	
3	8	
30	70	M.D
	4	
6		
1	9	
	4	
3	9	
3	18	
4	8	
5		
6	21	
	701	

202

302

100

(17<sup>2</sup> rds)

	♂	♀+M	M:D
	6	21	
	1		
	2		
	4		
	1	20	
		12	
		11	
	14	11	M:D
	10	54	
	14	16	
		1	
	<del>21</del> 1	20	
	<del>14</del>	14	
	20	35	M:D
		14	
	1	16	
403	5		
	1		
		10	M:D CAM
	13	38	
	1	8	
	8	8	
	1	4	
	1		
	2		
	8	19	M:D
	<del>24</del> 1	25	M:D
	17	15	
500	21	40	
		3	
	6	1	
		7	
		3	
	6	5	
	10	35	M:D
	6	12	
	1	9	M:D
		6	
		3	
	2		
	1	2	
	31	50	
	4	8	M:D
	3	11	
	2	4	
	1	6	
	18	35	
		614	

	♂	♀+M	M:D
	4		
		3	
		5	M:D
		8	M:D
	8	21	
	18	12	
	28	31	
	2	4	
		3	
	3	1	
	3	5	
	2		
	4	6	
		2	
	3	9	
	5		
	5	12	
	1	6	
	1	3	
		<del>2</del> 16	(7 rds.)
		18	M:D
		26	
	3	7	M:D
	1	17	M:D
	1		
	1		
	1	2	
	2	3	
		5	M:D
		1	
706	<del>2</del> 7	16	M:D
	1	13	M:D
	4	10	M:D
	20	31	M:D
745 <del>34</del>	14	21	M:D
		11	M:D
		15	
	8	10	M:D
	3	2	
	3	6	M:D
		9	
	5	8	M:D
	2		
	2		
	1	2	
		1	

7 rds. 343

15/4	190	75
16/4	10	75
17/4	190	100
18/4	45	75
19/4	10	50
20/4	20	75
21/4	63	50
22/4	14	50
23/4	13	75
24/4	11	50
25/4	75	75
26/4	65	50
27/4	152	100
28/4	66	50
29/4	10	75
30/4	105	100
1/5	29	<del>75</del> 50
2/5	73	75
3/5	14	75
4/5	-	-
5/5	-	-
6/5	-	-
7/5	67	50
8/5	18	25
9/5	143	700
10/5	40	50
11/5	61	50
12/5	26	75
13/5	188	<del>75</del> 100
14/5	40	75
15/5	50	50
16/5	17	25
17/5	6	75
18/5	5	50
19/5	9	50
20/5	97	100
21/5	22	50
22/5	130	<del>75</del> 100

23/5	15	75
24/5	15	25
25/5	29	75
26/5	-	-
27/5	39	50
28/5	28	50
29/5	18	100
30/5	26	75
31/5	0	75
1/6	0	50
2/6	41	75
3/6	21	25
4/6	0	50
5/6	12	75
6/6	10	75
7/6	29	<del>75</del>
8/6	28	100
9/6	21	25
10/6	186	75
11/6	0	50
12/6	3	25
13/6	1	50
14/6	25	75
15/6	87	75
16/6	0	50
17/6	23	100
18/6	8	50
19/6	8	50
20/6	57	100
21/6	0	50
22/6	0	50

date	total	% Area covered
23/1	1	75
24/1	10	100
25/1	0	25
26/1	26	100
27/1	0	25
28/1	0	100
29/1	11	75
30/1	12	100
31/1	3	50
1/2	14	100
2/2	0	75
3/2	43	75
4/2	<del>4</del> 0	50
5/2	16	100
6/2	<del>54</del> 0	<del>100</del> 25
7/2	54	100
8/2	1	75
9/2	0	50
10/2	0	100
11/2	0	75
12/2	27	75
13/2	20	75
14/2	35	50
15/2	6	75
16/2	86	100
17/2	54	50
18/2	-	-
19/2	0	75
20/2	0	100
21/2	113	100
22/2	29	75
23/2	<del>27</del> 31	75
24/2	15	75
25/2	122	100
26/2	27	75
27/2	173	100
28/2	0	50
29/2	0	50
30/2/3	78	<del>50</del> 75
2/3	7	75
3/3	183	100

36.42  
27.76

2783

4/3	45	75
5/3	39	75
6/3	106	75
7/3	262	<del>100</del> 75
8/3	179	100
9/3	34	75
10/3	164	100
11/3	69	75
12/3	90	50
13/3	112	75
14/3	60	75
15/3	83	75
16/3	4	50
17/3	24	75
18/3	49	75
19/3	32	50
20/3	61	50
21/3	53	50
22/3	17	75
24/3	11	50
25/3	81	100
26/3	122	75
27/3	93	50
28/3	100	50
29/3	164	100
30/3	100	50
3/4	60	50
1/4	72	75
2/4	10	75
3/4	55	75
4/4	54	75
5/4	62	50
6/4	51	75
7/4	4	25
8/4	6	75
9/4	60	50
10/4	-	-
11/4	-	-
12/4	-	-
13/4	50	50
14/4	-	-

Chapra kokyketti	Machraiya	Flaw al hand	Date
65	103	14	26
69	M.V	14	1
60	60	23	6
50	121	26	14
15	48	24	16
22	125	29	24
36	M.V	26	26
24	M.V	4621	30
15	24	21	4 5
3	150	36	9 10
19	70	0	14 15
0	57	0	19 20

## GENERAL OBSERVATIONS

### Site Fidelity

A significant finding of this study is that successive male Bengal Florican have occupied the same display sites for a number of years. The three main florican areas discussed earlier have been known to have floricans for the last forty years! For example, the patch of grass adjacent to, and west of the Sonaripur FRH had a territorial male in 1943-44 (Naresh Singh, pers. comm.). The very same patch of grass has a territorial male even now. At Kowhaghatti, the same patch of grass ~~was~~ occupied since the early 1950s (Naresh Singh, pers. comm.) is the display site of a male Bengal Florican to this day. Similarly at Chapra phanta, a male florican has been known to occupy the same display site every summer for a number of years (Balram Singh, pers. comm.).

In the course of this study we have seen that exactly the same display sites have been in use between 1985 and 1988. In 1985, three display sites were located, in 1987 and 1988 there were males at the same sites. In 1987, eight display sites were located and in 1988, males were seen to use the same sites for displaying. This is in concurrence with our observations on the Great Indian Bustard *Ardeotis nigricaps* where a coloured-marked

10

individual was seen to occupy the same display site for three consecutive years.

This site fidelity shown by male floricans brings up a host of interesting questions; (1) Is the number of territorial male floricans governed by the number of traditional display sites? (2) How often are new display sites established? (3) Is a particular display site occupied by the same individual for a number of years or is site selection done every year?

### Habitat Preference

The preference for open grasslands with short grasses was clearly seen by the behaviour of the Bengal Florican. The topography of the grasslands occurs in a series of high and low ground levels -- this being most clearly seen in the Rhino enclosure and least so in the Sonaripur region. Owing to the high ground water level and the presence of numerous perennial and temporary water bodies the grasses grow to well over 2 m in

	Total	♂	♀	Y	
27/2	31	3	$\sqrt{28}$		1♂ with 'bumps', 1 with 1 tine only
27/2	21	1	14	6	
29/2	78	13-14	$\sqrt{64-65}$		
2/3	3	-	2	1	
2/3	4	-	4	-	
3/3	67	20	$\sqrt{47}$		2♂ had shed one antler each
3/3	63	15	$\sqrt{48}$		
3/3	11	-	6-7	<del>5-4</del> 5-4	
4/3	12	6	4	2	
4/3	17	6	8	3	
4/3	15	7	6	2	
4/3	18	-	$\sqrt{18}$		
5/3	2	-	2	-	
5/3	15	7	5	3	
5/3	4	-	3	1	
5/3	11	3	5	3	
6/3	100+	28-30	$\sqrt{70+}$		many ♂ with only one or no antlers.
6/3	4	-	3	1	
6/3	2	-	1	1	
6/3	6	6	-	-	
7/3	10	1	8	1	
7/3	4	-	3	1	
7/3	12	3	7	2	
8/3	21	3	12-13	5-6	
8/3	<del>12</del> 4	4	6	2	
8/3	5	5	-	-	
8/3	27	6	14-15	6-7	
9/3	27	6	14-15	5-7	
9/3	1	1	-	-	
9/3	2	2	-	-	
9/3	4	4	-	-	
10/3	21	1	13	7	①
10/3	12	-	10	2	
10/3	11	-	8	3	
10/3	25	14	$\sqrt{11}$		All wear each other
10/3	64	10	<del>4</del> 13	♀=41	
10/3	30	14	10	6	
10/3	1	-	1	-	
10/3	21	1	13	7	② - ① + ② M+E change
11/3	14	-	10	4	①
11/3	55	20	$\sqrt{35}$		
11/3	14	-	10	4	③ ① + ② M+E
12/3	17	1	12	4	
13/3	5	5	-	-	
13/3	1	1	-	-	
13/3	10	-	$\sqrt{10}$		
14/3	51	13	28	10	
14/3	9	1	6	2	

Herd composition Swamp deer  
Dudhwa 1985

Date	Size	♂	♀	Young	
24/1	10	-	7-8	2-3	
26/1	8-10	-	6-8	2-3	
26/1	16	1 imm	15	?	
29/1	10-11	-	8-9	2-3	
30/1	11-12	6	4	1-2	
31/1	3	3	-	-	
31/1	60 <small>dispersed</small>	29-21	39		Bankia taal
1/2	14	5	9		
3/2	25	-	18-20	5-7	} About 50-100mts apart.
3/2	8	4	3	1	
5/2	16	1	15		} Many young definitely may were sitting 1 ♂ with velvet 'bumps', 1 ♂ with one pair of horns only may more calling from tall grass.
7/2	15-16	7	5-6	3	
8/2	38	9	29		
8/2	10+	10+	-	-	Baadi taal
8/2	1	1	-	-	chakra.
12/2	25	2	23 (23)		
12/2	2	-	1	1	
15/2	15-17	3	12-14		
15/2	2	-	1	1	
15/2	1	-	1	-	
14/2	35	10	25		} some ♂s with one antler only 2 with one tine and one imm ♂ / one with big bare patch on left side
15/2	6	3	2	1	
16/2	5	1 imm	2	2	
16/2	62	8-10	52-54		
16/2	4	4	-	-	
17/2	26	-	26		①
17/2	4 <small>dispersed</small>	-	3	1	
17/2	4	4	14		
17/2	6	1	3	2	
17/2	14	8-10	9	5	② - ①+② same place but about 1 hr later
19/2	25	10	11	4	Bankhia taal
21/2	39-40	2	28-30	7-10	
21/2	38	3	25	10+	
22/2	12	1 ♂	2	9	} Same place middle at 8.25 - others at 9.30
22/2	17	1	4	12	
22/2	8	1	3	4	
22/2	4	-	3	1	
23/2	18	1	12-13	4-5	
23/2	13	8	4	1	
24/2	412	1	7	4	
24/2	3	3	-	-	
23/2	9	-	7-8	1-2	
25/2	24	1	15-16	7-8	
25/2	8	-	6	2	} c. 100-150 mts apart.
25/2	2	-	2	-	
25/2	70+	13-14	56-57		
25/2	19	1	13-14	4-5	
25/2	27	3	15-16	8-9	
25/2	37-38	12	25-26		
26/2	27	3	16	8	
27/2	56	10	34-36	10-12	
27/2	37	13	19	5	} mixed up soon after.
27/2	28	-	28		

SWAMP DEER:- HERD SIZE DUDHWA 1988

Date	Place	Size		
23/1	Satiana	1		
24/1	Madraiya M	10		
26/1	Madraiya M	10		
26/1	Madraiya	16		
29/1	Satiana	10-11	AV = 9.6	Excl. solitary = 11.75
30/1	Madraiya M	11-12		
31/1	Satiana	3	31/1 60+	Bankhria taal (scattered)
1/2	Madraiya	5		
1/2	Madraiya M	9		
3/2	Madraiya	25		
3/2	Madraiya	8		
3/2	Madraiya	10+		
5/2	Madraiya	16	AV = 11	12.16
7/2	Navalhd machan	15-16		
7/2	Madraiya	40+		
8/2	Chapra	1		
8/2	Bhadi	10+		
12/2	Madraiya	25		
12/2	Madraiya	2	AV = 15.66	Excl. sit. = 18.6
13/2	Navalhd machan	15-17		
13/2	Chapra	2		
13/2	Chapra	1		
14/2	Madraiya M	35		
15/2	Satiana	6		
16/2	Navalhd Machan	5		
16/2	Satiana	15		
16/2	Navalhd	4		
16/2	Madraiya Machan	62		
17/2	Madraiya	26		
17/2	Madraiya	4		
17/2	Madraiya	18		
17/2	Madraiya	6		
17/2	Madraiya	14	AV = 10.64	
19/2	Bankhria taal	25	AV = 16	Excl. sit = 17.07
21/2	Chapra	40		
21/2	Madraiya	38		
21/2	"	35		
22/2	Chapra	12		
22/2	Satiana	4		
22/2	Chapra	17		
22/2	Chapra	8		
23/2	"	18		
23/2	Satiana	13		
23/2	Chapra	9		
24/2	Satiana	12		
24/2	Navalhd	3		
25/2	Chapra	24		
25/2	Madraiya	8		
25/2	"	70		
25/2	"	8		
25/2	"	2		
25/2	"	19		
25/2	Chapra	27		

b21ds

25/2	Satlana	37	
26/2	Chapra	27	AV = 21.76
<del>26/2</del> 27/2	"	56	
27/2	Madraiya	37	} mixed up
27/2	"	28	
27/2	"	31	
27/2	"	21	
1/3	Chapra	78	
2/3	Navalul	3	
3/3	Chapra	67	
3/3	Madraiya	63	
3/3	Mahm	11	
3/3	Satlana	55	
3/3	Chapra	33	
3/3	"	73	
4/3	"	15	
4/3	Satlana	30	
4/3	"	12	
4/3	"	17	AV = 35.88
5/3	Chapra	2	
5/3	Satlana	15	
5/3	Chapra	4	
5/3	Satlana	11	
6/3	Chapra	4	
Satlana 6/3	Satlana	6	
6/3	Navalul	2	
6/3	Satlana	100	
7/3	Chapra	10	
7/3	Satlana	4	
7/3	Chapra	2	
7/3	Madraiya	150	
8/3	Chapra	21	
8/3	"	12	
8/3	Satlana	13	
8/3	"	53	
8/3	Navalul	5	
8/3	Chapra	27	
8/3	Madraiya	75	
9/3	Chapra	27	
9/3	Satlana	1	
9/3	Navalul	2	
9/3	"	9	
9/3	Chapra	29	
10/3			

CPA 5/20

Date	Place	Size	
10/3	Chapra	21	
10/3	Madraya	12	
10/3	"	11	
10/3	"	25	
10/3	"	55	
10/3	119	9	
10/3	"	30	
10/3	Chapra	21	
10/3	Satiaha	1	
11/3	Chapra	14	
11/3	Satiaha	55	
11/3	Chopra	14	Av = 23.66 Excl. solitary = 25
12/3	"	50	
13/3	Satiaha	80	
13/3	"	17	
13/3	Navahl	5	
13/3	Satiaha	1	
13/3	Chopra	10	
14/3	Chopra	61	
14/3	Navahl	9	
15/3	"	8	
15/3	"	5	
15/3	Satiaha	70	
16/3	"	1	
16/3	Chopra	3	
17/3	Madraya	2	
17/3	"	27	
18/3	Chopra	29	Av = 24.25 Excl. solitary = 27.56
19/3	"	32	
20/3	"	61	
21/3	"	3	
21/3	Satiaha	50	
22/3	"	7	
22/3	Navahl	7	
22/3	Chopra	3	
23/3	"	11	
24/3	Madraya	45	
24/3	"	18	
24/3	"	10	
24/3	Navahl	6	

24/3	Navahl	3	19.54
25/3	"	2	
25/3	chapra	100	
25/3	"	20	
26/3	"	50	
26/3	"	81	
26/3	satiama	12	
27/3	chapra	70	
27/3	satiama	<del>30</del> 30	
27/3	"	14	
27/3	"	6	
28/3	chapra	53	
28/3	Madraya	100	
28/3	"	7	
28/3	"	4	
29/3	Navahl	5	
29/3	chapra	3	
30/3	satiama	8	
30/3	Banley	29	
30/3	satiama	100	
31/3	"	1	
31/3	chapra	30	
31/3	satiama	30	Av = 34.32 / Exl. satiama = 35.9
1/4	Navahl	2	
1/4	chapra	59	
1/4	Navahl	6	
1/4	"	3	
1/4	"	4	
2/4	"	8	
2/4	"	2	
2/4	"	10	
3/4	chapra	35	
3/4	"	<del>20</del> 20	
4/4	"	40	
4/4	satiama	12	
4/4	Navahl	2	
4/4	satiama	12	
4/4	chapra	27	
5/4	"	45	
5/4	satiama	5	
5/4	chapra	30	
5/4	"	19	
5/4	satiama	17	

54704  
53100

6/4	Mawalhd	7	
6/4	Chypra	40	
6/4	"	4	
6/4	Banley	24	
7/4	Mawalhd	2	
7/4	"	2	
7/4	"	4	
7/4	"	2	
7/4	"	1	AV = 15.31   15.82 = Excl. solitary
8/4	"	5	
8/4	# Sattan	1	
9/4	Chypra	60	
13/4	"	43	
13/4	"	7	AV = 25.2   31.25
15/4	Chypra	40	AV = 26
15/4	Madraya	82	
15/4	"	70	
16/4	Mawalhd	10	
17/4	"	18	
17/4	Chypra	30	
17/4	"	17	
17/4	Madraya	30	
17/4	"	50	
17/4	"	15	
17/4	"	26	
17/4	"	4	
18/4	Chypra	45	
19/4	"	10	
20/4	Mawalhd	18	
20/4	"	1	
20/4	"	1	
21/4	Chypra	60	
21/4	Madraya	3	AV = 27.89   31.06
22/4	Sattana	5	
22/4	"	3	
22/4	"	1	
22/4	Chypra	5	
23/4	Mawalhd	13	
24/4	Sattana	11	
25/4	Chypra	23	
25/4	"	50	
25/4	"	14	

26/4	chakra	14	
26/4	"	51	
27/4	"	35	
27/4	Madraya	11	
27/4	"	90	
27/4	"	2	
27/4	Hauki	14	
28/4	satiya	1	
28/4	chakra	65	
28/4	"	60	24.63   Ecl. slt = 27.41
29/4	Hauki	2	
29/4	"	2	
29/4	"	6	
"	"	1	
"	"	1	
30/4	chakra	40	
30/4	"	10	
30/4	Madraya	13	
30/4	"	15	
30/4	"	4	
30/4	"	12	
30/4 15	satiya	11	
30/4 15	chakra	18	
30/4 15	satiya	5	
2/5	chakra	55	
2/5	Satiya	13	
2/5	"	9	
2/5	chakra	60	
3/5	Hauki	14	
4/5	Saluhgar	20	
4/5	"	60	AU = 17.67   EQU 19.42
6/5	Saluhgar	25	
6/5	"	5	
6/5	"	7	
6/5	"	25	
6/5	"	80	
6/5	"	8	
7/5	satiya	13	
7/5	chakra	45	
7/5	satiya	74	
7/5	"	2	
7/5	chakra	54	

8/5	Mavalu	18	
8/5	"	2	
8/5	"	2	
8/5	"	4	
9/5	chopra	13	
9/5	chopra	21	
9/5	Madraya	60	
9/5	Mavalu	20	
9/5	"	3	
10/5	chopra	22	
10/5	"	12	
10/5	Sattan	4	
10/5	chopra	10	
11/5	Sattan	2	
11/5	chopra	50	
11/5	"	24	800
11/5	"	5	
11/5	"	17	
11/5	"	26	
11/5	Sattan	2	
11/5	"	9	
12/5	Mavalu	9	
12/5	"	11	
12/5	"	8	
12/5	"	18	Av = 18.28
13/5	chopra	23	
13/5	"	18	
13/5	Madraya	45	
13/5	"	7	
13/5	"	42	
13/5	"	27	
13/5	chopra	25	
13/5	Mavalu	26	
14/5	chopra	40	
15/5	"	50	
16/5	Mavalu	6	
16/5	"	4	
16/5	"	7	
16/5	"	4	
16/5	"	1	
17/5	"	6	

18/5	Satnam	2	
18/5	"	1	
18/5	"	5	
19/5	Chopra	9	Av = 15.3   Exl. slt. = 16.89
20/5	Navahlul	13	
20/5	"	7	
20/5	"	11	
20/5	"	2	
20/5	"	7	
20/5	"	4	
21/5	Satnam	8	
21/5	"	1	
21/5	"	9	
21/5	Chopra	12	
21/5	"	1	
22/5	Satnam	4	
22/5	"	1	
22/5	Madraya	9	
22/5	"	24	
22/5	"	6	
22/5	"	29	
22/5	"	33	
22/5	"	14	
23/5	Chopra	14	
23/5	Satnam	1	
24/5	Navahlul	2	
"	"	13	
"	"	2	
25/5	"	19	
25/5	"	3	
25/5	"	7	
26/5	Banley	32	
26/5	"	1	
26/5	"	1	Av = 16.33   Exl. slt = 20.17
27/5	"	32	
27/5	Satnam	3	
27/5	Chopra	36	
28/5	Satnam	3	
28/5	Chopra	25	
29/5	Navahlul	16	
29/5	"	2	
30/5	Chopra	26	

216	Setiara	7
216	chapra	17
216	Navalul Rd	1
216	Navalul	16
216	chepra	1
316	Navalul	2
316	"	9
316	"	7
316	"	1
316	"	2
316	"	14
516	Madraya	3
516	"	1
516	"	3
516	"	1
516	"	7
616	M/Mrd	10
716	Navalul	1
716	"	1
716	chapra	3
716	"	12
716	Navalul	11
716	"	3
716	"	1
816	"	1
816	"	3
816	Madraya	10
816	"	14
816	"	1
816	"	1
816	"	1
916	Navalul	7
916	"	14
1016	chapra	18
1016	"	18
1016	"	2
1216	Navalul	3
1316	Satray	1

Av = 11.58 | 13.56

6.24 | 9.19

14/6	Chapra	21
14/6	Sattiam	1
14/6	Setlam	3
14/6	Sattiam	1
15/6	Chapra	17
15/6	Madraya	35
15/6	Madraya	45
17/6	Chapra	19
17/6	Banhitad	4 2
19/6	Chapra	2 7
19/6	"	1
20/6	Navalkh	4
20/6	Madraya	6
20/6	"	3
20/6	"	6
20/6	"	1
20/6	"	41

17/6-1

Av = ~~18.53~~ 12.19 12.3 / 17.14

SWAMP DEER

DATE	TIME	DUDHWA		NAVAKHAD			CHITTAL	MADRANA		SATIANA	M-S ROAD	R-S ROAD	Remarks
		DRIVE	DRIVE	NAVAKHAD	MACHAN	CHAPRA	CHORAHA	DRIVE FOREST	DRIVE GRASSLAND				
23/1		-	-	-	-	-	-	X	X	1	-	-	
24/1		X	-	-	-	-	-	-	10	-	-	X	
25/1		-	X	X	X	X	X	X	X	-	X	-	
26/1		X	-	-	-	-	-	-	26	-	-	-	
27/1		-	X	X	X	X	X	X	X	-	X	-	
28/1		X	-	-	-	-	-	-	-	-	-	X	
29/1		X	-	-	-	-	-	X	X	10-11	-	-	
30/1		-	-	-	X	-	-	-	11-12	-	-	-	
31/1		-	-	-	-	X	X	X	X	3	-	-	60+ at Bankia taal
1/2		X	-	-	-	-	-	-	14	-	-	X	
2/2		X	-	-	-	-	-	X	X	-	-	X	
3/2		X	X	X	X	-	-	-	43+	-	-	-	Madrana = 43+
4/2		-	-	-	X	X	X	X	X	-	-	-	
5/2		X	X	-	X	-	-	-	16	-	-	X	
6/2		-	X	X	X	X	X	X	X	-	X	-	None seen at Salukpur.
7/2		X	-	-	15-16	Heard in the night	-	-	38+	-	-	-	M. Grassland [Not seen f-5-10% set] many eadly from grass not visible.
8/2		-	X	-	-	1	-	X	X	-	-	-	10+ Bhadi taal
9/2		-	-	-	+	+	-	+	+	-	-	X	
10/2		-	-	-	-	-	-	-	-	-	-	X	
11/2		X	-	-	X	-	-	X	X	-	-	X	
12/2		-	X	X	X	-	-	-	27	-	X	X	
13/2		-	-	-	15-17	3	-	X	X	-	-	X	
14/2		X	X	X	X	-	-	-	35	X	X	X	
15/2		-	X	-	X	-	-	X	X	6	-	X	
16/2		X	-	4	5	-	-	-	62	15	-	X	
17/2		+	+	+	+	-	-	-	54	X	X	X	
18/2		-	-	-	-	-	-	X	X	-	X	X	Very brief trip too foggy

Swamp deer

	Drive Dudhwa	Sattimat drive	Navalband	Navalband Machan	Chapra	Chittel Chomka	Madraing forest	Madraing ground	Sativa	N-S Rd	R-S Rd
19/2	-	X	-	X	-	-	X	X	-	<del>X</del>	X
20/2	X	-	-	-	-	-	-	-	-	-	X
21/2	-	-	-	-	39-40	-	-	38+(30-40)	-	-	X
22/2	X	-	-	-	12/25	-	X	X	4	-	X
23/2	-	X	-	-	18/9	-	X	X	13	-	X
24/2	-	X	3	X	-	-	X	X	12	-	X
25/2	X	X	-	-	24/27	-	-	107	37-38	-	X
26/2	-	X	-	X	27	-	X	X	-	-	X
27/2	-	-	-	-	56	-	-	117	-	-	<del>X</del>
28/2	-	-	-	X	X	X	X	X	-	-	X
29/2	-	-	-	X	<del>28</del> X	-	X	X	-	-	-
1/3	X	-	-	-	<del>78</del> X	X	X	X	-	-	-
2/3	X	-	4+3	-	-	-	X	X	-	-	-
3/3	X	-	-	X	67/73	-	X	63+11	30-40	X	-
4/3	-	+	-	X	15	-	X	X	18/30+ 29	-	-
5/3	-	X	-	-	2*/4	-	X	X	15+11* (30-40)	-	-
6/3	X	+	2	-	4	-	X	X	6/100+	-	-
7/3	X	X	X	X	10/12/12	-	-	150+	4/100+	X	X
8/3	-	-	-	5	33/27	-	-	75+	66	-	X
9/3	X	-	6	-	27/24	-	X	X	1	-	-
10/3	-	-	-	-	21	-	-	142	1	-	-
11/3	X	-	-	X	<del>20</del> 14	-	X	X	55	-	X
12/3	X	X	X	X	50+	-	X	X	-	X	X
13/3	X	-	5	-	10	-	X	X	(80+)+17	-	X
14/3	-	-	9	X	51	-	X	X	-	X	X
15/3	X	-	13	-	-	-	X	X	70-80	-	X
16/3	X	+	X	X	3	-	X	X	1/7	X	X

At chapra sighting 1 1/2 hrs apart.

Morning / evening

M/A/E

Swamp ~~Deer~~

Date	Dudhwa	Satwat	Nawalhad	Nawalhad Nachan	Chapra	Chittal Chorake	Madraiya <sup>F</sup>	Madraya G.	Satwar	N.S Rd	R.S RD.	
17/3	X	-	-	X	-	-	-	29	+	X	X	
18/3	-	-	-	X	49	-	X	X	-	X	X	
19/3	-	X	X	X	32	-	X	X	-	X	X	
20/3	X	X	X	X	61	-	X	X	-	X	X	
21/3	X	X	X	X	3	-	X	X	50+	X	X	
22/3	X	X	7	X	3	-	X	X	<del>7</del>	<del>3</del> -	X	
23/3	X	X	X	X	11	-	X	X	-	X	X	
24/3	-	+	9	-	-	-	-	68-73	-	<del>7</del> -	-	
25/3	X	-	2	-	100± (20+)	-	X	X	-	-	X	
26/3	-	X	X	X	50±/81	-	X	X	3/12	X	X	
27/3	X	X	X	X	70±	-	X	X	30±	X	-	
28/3	-	-	-	-	53	-	-	(100±)4+7	-	X	-	
29/3	X	-	5	X	3	X	X	X	X	-	X	
30/3	-	X	X	X	-	-	X	X	8/100±	X	-	
31/3	X	X	X	X	30	-	X	X	30±/1	X	X	
1/4	X	-	2/13	<del>3</del> -	-	-	X	X	59	-	X	
2/4	-	-	10	-	-	-	X	X	-	X	-	
3/4	X	-	-	X	55±	-	X	X	-	a-	X	
4/4	-	+	2	-	40±/27	-	X	X	12/12	-	-	
5/4	-	+	X	X	45±	-	X	X	5/17	X	X	
6/4	-	-	7	-	110± +4	-	X	X	-	-	X	
7/4	X	-	4/3	-	X	X	X	X	X	X	X	
8/4	-	X	5♀	X	-	-	X	X	101	-	X	
9/4	-	+	X	X	60±	-	X	X	-	X	X	
10/4	←											→
11/4	←											→

Satwar - 50-60

Barkha taal 24

(absent)

SWAMP DEER

Dudhwa	Satimat	Navahel	Navahel Merchan	Chapra	c. choraha	M. Forest	Mgrassland	Satiraa	Mird	R. Rd	Date
X	X	X	X	50	-	X	X	-	X	X	13/4
-	X	X	X	40±	-	-	150±	-	X	X	15/4
X	X	10±	-	-	-	X	X	-	X	+	16/4
-	-	18	-	47±	-	9-	125	-	X	X	17/4
-	X	X	-	40± 45±	-	X	125± X	-	-	X	18/4
X	X	<del>18±</del>	X	910	-	X	X	-	X	X	19/4
X	-	18+1+1	-	-	X	+	+	-	X	-	20/4
X	X	X	X	60±	-	-	3	-	X	X	21/4
-	X	X	X	5	-	X	X	5 8+1	X	X	22/4
-	X	13	-	-	-	X	X	-	X	X	23/4
X	X	X	X	8-	-	+	+	11	X	X	24/4
-	-	-	-	75±	-	X	X	-	-	9-	25/4
-	X	X	X	65	-	X	X	-	X	X	26/4
X	X	4/4	X	35±	-	-	103±	-	-	X	27/4
X	X	X	-	65±/60±	X	X	+	1	X	X	28/4
-	-	10	-	-	X	X	+	-	-	-	29/4
X	X	X	-	(40±)+10	-	-	45±	10±	-	X	30/4
X	X	X	X	18	-	X	X	11/5	X	X	115
-	-	-	-	55/60	-	X	X	13/9	-	X	215
-	-	14	-	-	-	X	X	-	+	-	315
											415
											515
											615
-	X	X	X	45±/54	-	X	X	13/6	X	-	715
X	-	18/6	-	X	X	X	X	+	X	X	815
X	X	23	-	44	-	-	60±+1	15±	-	X	915

salukapur 80± (20± + 60±)  
 salukapur. ~~80±~~  
 " 150± (25± + 5 + 7 + 25± + 80± + 8)  
 lane of avon 18

SWAMP - DEER

	Dudhu	Satimat	Navahlul	N. Machu	Chapri	C. Cherdh	M. Foust	M. Granul	Satiam	M. Al	R. Mad.
1015	-	x	x	x	34 / <del>22</del>	-	x	+	4+2	-	x
1115	x	x	x	x	50 / (29/44)	-	x	x	2 / 11	x	x
1215	-	x	20/26	-	-	-	x	x	-	x	-
1315	x	-	26	-	41 / 25	-	-	121	-	-	x
1415	x	-	-	-	40 <sup>+</sup>	-	x	x	-	8 -	x
1515	-	x	x	x	50 <sup>+</sup>	-	x	x	-	x	-
1615	x	-	17	-	x	x	x	x	+	x	x
1715	-	-	6	-	-	-	x	x	-	-	x
1815	x	x	x	x	9 -	-	x	x	<del>2+2</del>	x	x
1915	-	x	20/24 <sup>x</sup>	x	9	-	x	9+7+29 +15	-	-	x
2040/15	x	-	20/24	-	(15)	-	-	9+7+29 +15	* -	-	x
2115	-	x	x	x	12	-	x	x	8 / 10	-	x
2215	-	-	-	x	-	-	-	125	4+1	-	x
2315	x	-	-	-	14	-	x	x	1	x	x
2415	x	-	2/15	-	x	x	x	x	x	x	x
2515	-	-	29	-	-	-	x	x	-	-	x
2615	x	x	x	x	x	x	x	x	x	x	x
2715	-	x	x	x	36	-	x	x	3	x	x
<del>2815</del>	x	x	x	x	25 <sup>+</sup>	-	x	x	3	x	x
2920/15	x	-	16	-	-	-	-	-	-	x	x
3015	-	-	26	-	-	-	x	x	-	x	x
315	<del>35</del>	x	-	-	-	-	x	x	-	-	x
116	-	x	x	x	-	-	x	x	-	x	x
216			16	1	17/1				7		
316			21/14								
416											

Satiam 3/5

Banhi ta  
" 32

- 23/5

SWAMP Dear.

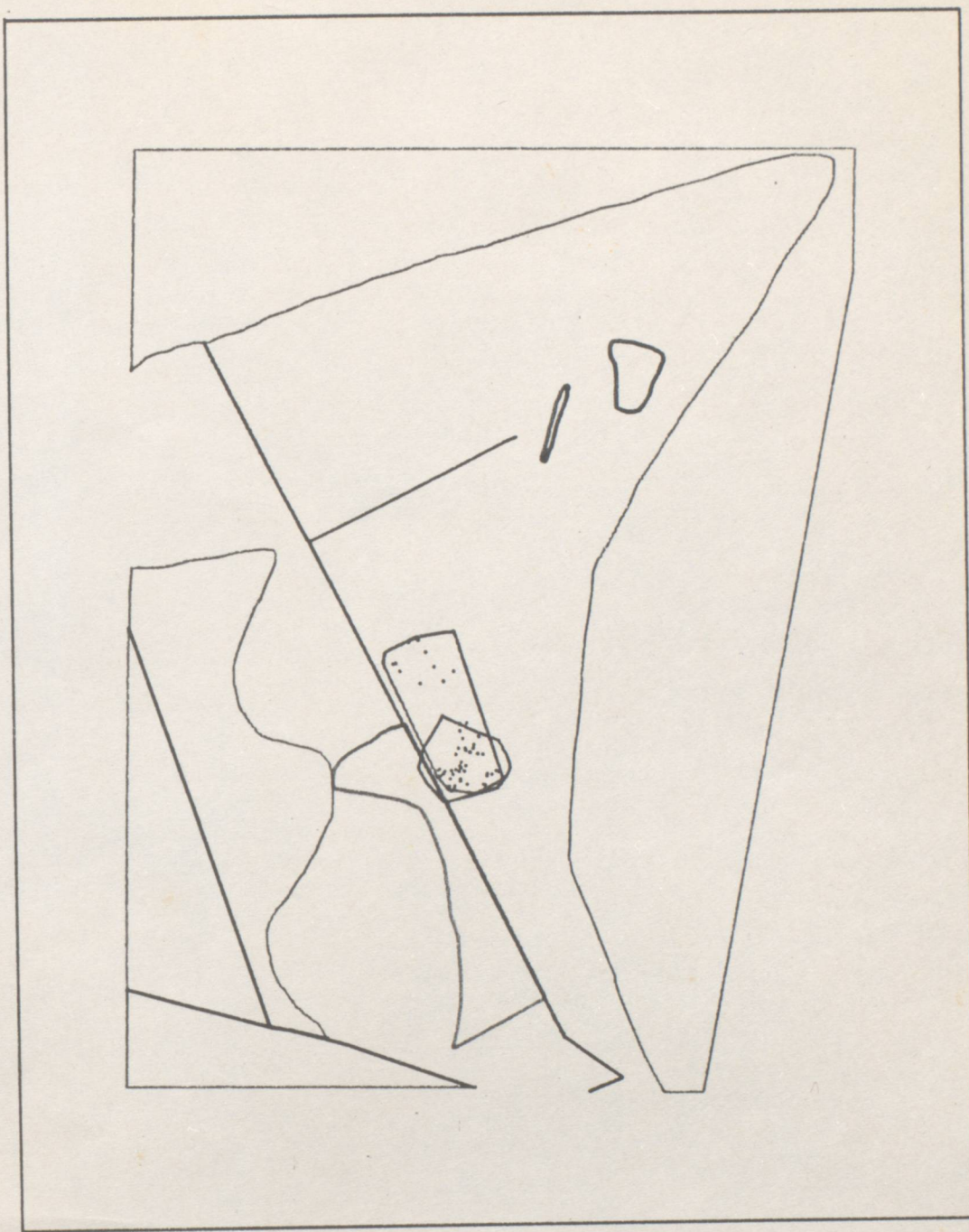
Date	Dudh	Satnam	Mawad	M.M	Chapra	C.C.	M-F	M-G	Satnam	M.S	R.S
5/6	x	x	x	x	- <del>8</del>	-	-	12	*-	x	x
6/6	x	-	-	10	-	-	x	x	-	-	x
7/6	x	-	14	-	15	-	x	x	-	-	x
8/6	x	-	4	-	-	-	-	24	-	-	x
9/6	x	-	21	-	<del>36/2x</del>	x	x	<del>150</del> *x	x	x	x
10/6	x	x	x	x	36/2	-	x	150*	-	x	x
11/6	-	x	x	x	-	-	x	x	-	-	x
12/6	x	-	3	-	x	x	x	x	x	x	x
13/6	-	x	x	x	-	-	x	x	1	x	x
14/6	-	-	-	-	21	-	x	x	4	-	x
15/6	-	x	x	x	17	-	-	70	-	x	x
16/6	-	x	x	x	-	-	x	x	-	x	x
17/6	-	x	-	-	19	-	* * -	4	-	-	x
18/6	-	x	x	x	8	-	x	x	-	x	x
19/6	-	x	x	x	8	-	x	x	-	x	x
20/6	x	-	-	-	-	-	-	57	-	*-	x
21/6	-	x	x	x	-	-	x	x	-	x	x
22/6	-	x	x	x	-	-	x	x	-	x	x
23/6											
24/6											
25/6											
26/6											
27/6											
28/6											
29/6											
30/6											

\* Satnam sity per comm

4200 Bankitaal

Territory : Chapra

Display sites within territory



Area of use - a) 1.023, b) 0.519 hectares  
 Methods : a) Minimum-perimeter polygon (Mohr 1947)  
 b) Harmonic-mean-distance homerange, 75%.  
 (Dixon & Chapman 1980)

(n = 63 displays)

scale 1cm = 0.135km  
 Dense forest  
 Open forest  
 Chapra 'taals'

Sing deer.

Date	Place	Q	St	♀	γ
1/6	Chyra	1	1	-	-
1/6	Chyra	1	1	-	-
3/6	Chyra	2	-	2	-
3/6	Chyra	1	1	-	-
4/6	Mubanya	1	-	1	-
4/6	↓	1	1	-	-
4/6	↓	6	-	6	-
4/6	↓	2	-	2	-
4/6	Maanyu	18	-	-	-
4/6	Mahul	14	-	-	-
4/6	Koyhatti	12	-	-	-
5/6	Koytti	6	-	-	-
7/6	Chyra	3	-	3	-
13/6	Baketaul	21	-	-	-
13/6	"	1	-	1	-
13/6	Bantaul	4	-	4	-
13/6	Bhadi	18	12	-	-
15/6	Chyra	2	-	2	-
15/6	Chyra	1	1	-	-
21/6	Bantaul	37	-	-	-
25/6	Chyra	2	-	1	1
					(this year)
5/7	Madrara	1	-	1	-
5/7	"	2	1	-	-
5/7	"	1	-	1	-
5/7	"	1	-	1	-
5/7	"	2	-	1	1
					(this year)

Swamp - deer  
Dudwa - 1989

Date	Area	group size	♂	♀	Y	Date	Area	group size	♂	♀	Y
17/2	Chupra	4	1	3	-	20/3	Kowlykheti	67	-	-	-
17/2	Madraya M.	55	-	-	-	20/3	Chupra	2	2	-	-
17/2	Mad. Mach.	3	-	3	-	24/3	Kowlykheti	2	2	-	-
20/2	Naval khal	16	6	9	1	25/3	Naval M	3	-	2	1
20/2	Naval khal	4	-	4	-	28/3	Naval M	15	-	-	-
21/2	Mad. Mach	74	23	-	-	31/4	Chupra	35	12	-	-
21/2	Naval.	18	7	-	-	5/4	Chupra	9	7	2	-
22/2	Sali	7	-	-	-	5/4	Madraya	7	7	-	-
<del>23/2</del>	<del>Madraya</del>	<del>60</del>	<del>-</del>	<del>-</del>	<del>-</del>	5/4	C. Chakra	3	-	3	-
23/2	Naval khal	16	5	-	-	5/4	Kowlykheti	11	-	-	-
24/2	Madraya	60	-	-	-	7/4	Balykhal	13	-	-	-
25/2	Naval khal	35	12	-	-	7/4	Baby tail phuta	5+	-	-	-
25/2	Satiara	4	-	4	-	11/4	Kowlykheti	13	9	3	1
25/2	Satukopur	32	-	-	-	13/4	Kowlykheti	20+	-	-	-
25/2	"	119	-	-	-	14/4	Kowlykheti	6	5(1)	1	-
25/2	"	105	-	-	-	14/4	"	4	-	3	1
1/3	Naval	12	-	-	-	14/4	"	14	9(ad)	5	-
2/3	Madraya	26	-	-	-	14/4	"	2	2	-	-
3/3	East Chupra	3	-	-	-	16/4	Chupra	2	-	2	-
3/3	Satiara	40	-	-	-	16/4	Chupra	11	8	2	1
3/3	Madraya	69	-	-	-	17/4	Satiara Kowlykheti	28	5	-	-
4/3	Satiara	56	-	-	-	17/4	Naval khal	4	-	-	-
4/3	Chupra	2	2	-	-	17/4	Kowlykheti	18	-	-	-
8/3	Naval khal	4	2	2	-	17/4	Chupra	6	-	-	-
10/3	Kowlykheti	61+	-	-	-	17/4	Kowlykheti	28	-	-	-
10/3	even Kowlykheti	65+	-	-	-	17/4	Kowlykheti	5	5	-	-
12/3	Kowlykheti	50+	-	-	-	18/4	Satiara	9	3	-	-
13/3	Kowlykheti	45+	-	-	-	18/4	Satiara	3	2	1	-
16/3	Satiara	10	2	6	2	18/4	Madraya	130+	-	-	-
16/3	Madraya	76	-	-	-	19/4	Kowlykheti	31	9	-	-
16/3	Madraya	1	-	-	-	20/4	Naval khal	9	3	4	2
18/3	Naval khal	1	-	-	1	20/4	Naval khal	5	2	3	-
19/3	Chupra	1	-	1	-	20/4	"	1	1	-	-
19/3	Chupra	28	10+	-	-	21/4	Chupra	15+	-	-	-
						21/4	Kowlykheti	7	1	5	1

Date	Place	9-212	♂	♀	Y
22/4	Chypra	21	5	12	4
23/4	Kouhytti	14	6	6	2
23/4	Kouhytti	13	-	-	-
23/4	Kouhytti	30 <sup>+</sup> 31	-	-	-
26/4	Bahytaal	20 <sup>+</sup>	-	-	-
27/4	Salukyrä	36	-	-	-
27/4	Salukyrä	31	-	-	-
28/4	Navahl	3	-	-	-
28/4	Navahl	2	-	-	-
28/4	Navahl	1	-	-	-
28/4	M-Mrd	11	-	-	-
29/4	Chypra	10	4	6	-?
29/4	Chypra	9	-	-	-
30/4	Kouhytti	20	7	10	3
30/4	Kouhytti	3	3	-	-
30/4	Kouhytti	22 30	-	-	-
31/4	Chypra	17	5	-	-
31/4	Navahl	28 <sup>+</sup>	-	-	-
31/4	Kouhytti	20 <sup>+</sup>	-	-	-
11/5	Satiint	3	-	-	-
11/5	Chypra	7	-	-	-
11/5	Chypra	1	-	1	-
13/5	Kouhytti	29	-	-	-
15/5	Kouhytti	20 <sup>+</sup>	-	-	-
14/5	Navahl	15	-	-	-
14/5	Navahl	1	-	1	-
14/5	Navahl	1	-	1	-
14/5	Navahl	2	-	2	-
14/5	Navahl	11	-	-	-
15/5	Chypra	18	-	-	-
17/5	Kouhytti	6	-	-	-
17/5	Navahl	20	-	-	-
17/5	Madmya	80 <sup>+</sup>	-	-	-
17/5	Mehanya	21	2	-	-
18/5	Chypra	12	-	-	-
16/5	Chypra	2	-	-	-
18/5	Chypra	1	-	-	-

Date	Place	9-212	♂	♀	Y
21/5	Kahma	10 <sup>+</sup>	-	-	-
} 101ml					
21/5	Kuunma	18	-	-	-
21/5	Parketta	20 <sup>+</sup>	-	-	-
(Mostly ♀ only 2-3♂)					
22/5	Chypra	2	-	2	-
22/5	Kouhytti	2	-	2	-
23/5	Navahl	5	-	-	-
23/5	Navahl	4	-	1	-
23/5	Navahl	2	-	2	-
24/5	Kouhytti	6	2	-	-
24/5	Kouhytti	2	1	1	-
24/5	Kouhytti	1	-	1	-
24/5	Rord	3	3	-	-
24/5	Rord	1	1	1	-
24/5	Kouhytti	1	-	1	-
24/5	Kouhytti	1	-	1	-
24/5	Chypra	3	-	-	-
25/5	Kouhytti	3	-	-	-
25/5	Kouhytti	1	-	-	-
25/5	Navahl	53 <sup>+</sup>	-	-	-
25/5	Kouhytti	6	-	-	-
25/5	Navahl	10	-	-	-
29/5	Navahl	8	2	6	-
30/5	Navahl	1	-	1	-
30/5	Kouhytti	2	-	2	-
30/5	Navahl	14	-	-	-
30/5	Kouhytti	3	-	3	-
31/5	Kouhytti	2	-	2	-
31/5	Kouhytti	2	-	2	-
31/5	Chypra	13	2	10	1

Hum seen

Kakraka

Sweep deer 198

200-225

H size	Fawn
24	3
80	11
21	5
30	9
124	28+
30	11
56	19
12	2
7	2
59	12
7	1
21	4
52	10
13	1
<hr/>	<hr/>
536	118

R.P. 256  
 G.E. 300  
 - 66  


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 234 ✓  


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 203 ✓

Actual count 302.  
 Fawns 69.  
 22.84%.

22.01%

1989. Inside Rhino enclosure - 302 - (181 ♀ + 121 ♂ + 69 ♀ + 41 ♂)  
 outised " " (Dudwa gate) - 50+

Savarkar . V. B. 1989

TOW report. W11E Dehra Dun

	1989	1988	
Sahana	287	490	PS
R.P.A.	350 <sup>+</sup>	370	PS
Bhadraula	50 <sup>+</sup>		PS
Barhetaad		35	PS
Nayrataad (4) <sup>+</sup>	40*		PS
Chota Kakhaha	15*		PS
Mahaha	10*		PS
Ranawas	10*		PS
Chimerad (7) <sup>+</sup>	15*		PS
Bhalit tal	5-10	30	PS
Nan tal	—	—	PS

\* skouee touls dyatnt. statt.

(+) seen personally.

# Hog deer Dudwa 1989

Date	Area	Group size	M	♀	Y	Date	Area	group size	♂	♀	Y
17/2	Madraya	3	-	2	1	27/2	Salukpur	1	-	-	-
17/2	Madraya	2	-	2	-	27/2	"	2	-	-	-
19/2	Chopra	2	2	-	-	27/2	"	1	-	-	-
20/2	Chopra	4	2	2	-	2/3	Chopra	4	1	2	1
21/2	Madraya	1	-	1	-	3/3	Chopra	1	-	1	-
21/2	Madraya	1	-	1	-	3/3	Madraya	2	-	-	-
21/2	Madraya	1	-	1	-	3/3	"	1	-	1	-
23/2	Madraya	1	1	-	-	4/3	Chopra	2	2	-	-
24/2	Madraya	1	1	-	-	4/3	Chopra	4	2	2	-
24/2	Madraya	1	1	-	-	4/3	Chopra	1	-	-	-
25/2	Chopra	6	2	3	1	5/3	Chopra	1	-	-	-
25/2	Salukpur	1	1	-	-	6/3	Chopra	3	1	1	1
25/2	Salukpur	3	-	3	-	6/3	Chopra	3	1	1	1
25/2	"	1	-	1	-	9/3	Chopra	3	-	-	-
25/2	"	1	-	-	-	<del>11/3</del> 11/3	Chopra	1	-	-	1
25/2	"	1	-	-	-	12/3	Chopra	4	-	3	1
25/2	"	1	-	-	-	14/3	Chopra	3	-	3	-
25/2	"	1	-	-	-	15/3	Chopra	2	1	1	-
25/2	"	1	-	-	-	15/3	Chopra	1	-	-	-
25/2	"	1	-	-	-	15/3	Chopra	7	3	3	1
25/2	"	1	-	-	-	16/3	Madraya	4	1	4	-
26/2	"	1	-	1	-	16/3	Madraya	2	1	1	-
26/2	"	2	-	2	-	18/3	Chopra	1	-	1	-
26/2	"	1	-	1	-	19/3	Chopra	2	-	1	1
26/2	"	1	-	1	-	19/3	Chopra	1	-	1	-
26/2	"	2	-	1	1	20/3	Pigerbun	1	-	1	-
26/2	"	9	-	-	-	16/3	Madraya	1	-	1	-
26/2	"	2	-	-	-	22/3	Madraya	1	-	1	-
26/2	"	2	1	1	-	23/3	Chopra	8	3	3	2
26/2	"	1	-	-	-	23/3	Chopra	2	-	1	1
26/2	"	1	-	-	-	23/3	Chopra	1	-	-	-
26/2	"	3	-	-	-	23/3	Chopra	6	3	2	1
27/2	"	1	1	-	-	25/3	Chopra	1	1	-	-
27/2	"	1	-	-	-	25/3	Chopra	1	-	-	-
27/2	"	1	-	-	-	25/3	Chopra	2	-	1	1
						25/3	Chopra	1	1	-	-

Date	Group size	♂	♀	Y	Area	Date	Area	Group size	♂	♀	Y
25/3	2	-	1	1	Madraya	12/4	Chopra	3	1	1	1
	2	-	1	1		16/4	Chopra	2	-	1	1
25/3	2	-	1	1		16/4	Chopra	3	1	1	1
	2	-	1	1	Madraya	16/4	Chopra	1	1	-	-
25/3	3	-	-	-		16/4	Chopra	7	3	2	2
	2	-	1	1		18/4	C. Chukhu	2	-	1	1
	1	1	-	-		18/4	Madraya	2	2	-	-
25/3	2	-	1	1		18/4	Madraya	1	-	-	-
	2	-	1	1	Madraya	19/4	Kauna	2	-	1	1
25/3	1	-	-	-		22/4	Chopra	3	-	1	2
25/3	1	-	-	-	Madraya	22/4	Chopra	3	1	1	1
27/3	1	-	1	-	Chopra	27/4	Chopra	2	or 2	-	-
27/3	3	-	2	1	Chopra	22/4	Chopra	2	-	1	1
27/3	1	1	-	-	Chopra	24/4	Sonapur	1	-	1	-
28/3	1	1	-	-	R. D. rd.	24/4	Sonapur	1	-	1	-
30/3	2	-	1	1	Kowighthi	25/4	Sonapur	2	-	1	1
3/4	3	-	-	-	Chopra	25/4	Sonapur	1	-	1	-
3/4	3	-	-	-	Chopra	25/4	Sonapur	1	1	-	-
3/4	1	-	1	-	Chopra	27/4	Philo enclosure	1	-	-	1
3/4	1	1	-	-	Chopra	27/4	Philo enclosure	3	2	1	-
5/4	2	-	1	1	Madraya	27/4		2	-	-	-
5/4	2	-	1	1	"			4	-	2	2
5/4	3	-	-	-	"			1	-	-	1
5/4	4	-	-	-	"			12	-	-	-
5/4	2	-	-	-	"			2	-	1	1
5/4	2	2	-	-	"			1	-	-	1
6/4	1	1	-	-	Sonapur			1	1	-	-
6/4	1	-	1	-	"			1	-	1	-
6/4	3	1	2	-	"			2	-	-	-
8/4	3	2	1	-	"			2	-	1	1
8/4	3	-	-	-	B. taal			1	-	1	-
9/4	1	1	-	-	Sonapur			1	-	-	-
12/4	4	-	-	-	Chopra			2	-	-	-
12/4	2	-	1	1	Chopra			2	-	-	-

409 deer.

Date	Place	G-Size	♂	♀	Y	Date	Place	G-Size	♂	♀	Y
27/4	Rhino enclosure	2	2	-	-	31/4	Mady	1	1	-	-
		1	1	-	-	11/5	Mady	2	-	1	1
		3	-	-	-	12/5	Chypra	1	-	1	-
		2	-	1	1	12/5	Chypra	2	-	1	1
		1	-	-	1	12/5	Chypra	3	1	1	1
		1	-	-	1	13/5	Kowha	1	1	-	-
		1	1	-	-	13/5	Chypra	4	♂ 1	2 ♀	♂ 1
		1	-	1	♂	13/5	Chypra	1	1	-	-
		3	-	-	-	15/5	Chypra	3	-	-	-
		2	-	1	1	15/5	Chypra	1	1	-	-
		2	-	-	-	15/5	Chypra	1	1	-	-
		3	1	2	-	15/5	Chypra	1	1	-	-
		4	1	3	-	15/5	Chypra	1	-	1	-
		2	1	1	-	15/5	C-Chypra	2	-	1	1
		1	-	♂ 1	-	18/8	Chypra	1	1	-	-
		1	-	1	-	18/5	Chypra	3	1	1	1
		1	1	-	-	19/5	Kahraka	2	-	2	-
		1	1	-	-	20/5	Seethingadi	4	-	-	-
		1	-	-	1	21/5	Kahraka	1	♂ -	-	-
		3	-	-	-	21/5	Kahraka	3	1	1	1
		1	-	-	1	21/5	Kahraka	3	-	2	1
		2	-	1	1	21/5	Kahraka	3	-	-	-
↓	↓	2	-	1	1	22/5	Chypra	1	-	1	-
27/4	Rhino-E	1	-	-	1	22/5	Chypra	2	-	1	1
29/4	Chypra	7	-	-	-	22/5	Chypra	3	♂ 1	1	1
29/4	Chypra	2	-	1	1	24/5	Kowha	1	1	-	-
29/4	Chypra	2	-	-	-	24/5	Chypra	2	-	2	-
29/4	Chypra	1	1	-	-	24/5	Chypra	2	1	1	-
29/4	Chypra	4	3	1	-	24/5	Chypra	2	-	-	-
29/4	Chypra	4	-	2	2	25/5	Madruga	1	-	1	-
29/4	Chypra	2	1	1	-	25/5	Mady	1	♂	1	-
29/4	Chypra	2	1	1	-	25/5	Mady	2	1	1	-
29/4	Chypra	1	-	1	-	26/5	Chypra	1	-	-	-
29/4	Chypra	1	1	-	-	26/5	Chypra	1	1	-	-
29/4	Chypra	2	-	1	1	26/5	Chypra	2	-	-	-
29/4	Chypra	1	1	-	-	28/5	Kowha	1	-	1	-

handwritten notes

vertical handwritten notes

vertical handwritten notes

Date	Place	G. Size	♂	♀	γ	Date	Place	G. Size	♂	♀	γ
30/5	Chypra	1	-	1	-	3/6	Chypra	1	-	-	-
30/5	Chypra	3	1	1	1	4/6	Chypra	4	-	-	-
30/5	Chypra	3	1	1	1			3	-	-	-
30/5	Chypra	2	1	1	-			2	-	1	1
30/5	Chypra	2	-	2	-			4	-	-	-
30/5	Chypra	4	1	2	1	↓	↓	3	-	-	-
31/5	Kouka	1	1	-	-	4/6	Chypra	1	-	-	-
<del>31/5</del>	<del>Kouka</del>	<del>3</del>	<del>-</del>	<del>3</del>	<del>-</del>	4/6	Madraha	2	-	-	-
<del>31/5</del>	<del>Kouka</del>	<del>2</del>	<del>-</del>	<del>2</del>	<del>-</del>			1	1	-	-
<del>31/5</del>	<del>Kouka</del>	<del>2</del>	<del>-</del>	<del>2</del>	<del>-</del>			1	♂	1	-
1/6	Chypra	1	-	1	-			1	1	-	-
1/6	Chypra	4	2	1	1	4/6	Madraha	1	-	-	-
1/6	Chypra	2	♂-	1	1			1	-	-	-
1/6	Chypra	1	-	1	-			1	-	-	-
1/6	Chypra	2	-	1	1	4/6	Madraha	2	-	1	1
2/6	Sabun	1	-	-	-	7/6	Chypra	4	-	2	2
3/6	Chypra	1	-	1	-			5	-	-	-
3/6	Chypra	1	-	-	-			5	-	3	2
3/6	Chypra	1	-	-	-			10	8	1	01
3/6	Chypra	1	-	-	-			3	-	-	-
7/6	Chypra	1	-	-	-	↓	↓	1	1	-	-
3/6	Chypra	1	-	-	-	7/6	Chypra	4	1	2	1
3/6	Chypra	1	-	-	-	7/6	Chypra	13	-	-	-
						7/6	Koukth	3	1	1	1
						7/6	Chypra	1	1	-	-
						8/6	Chypra	5	2	2	1
						8/6	Chypra	4	1	2	1
						8/6	Chypra	2	1	1	-

(above repeated)

Date	Place	G-size				Date	Place	G-size	Hog deer		
		♂	♀	H	O				♂	♀	Y
8/6	Chypra	2	-	2	-	15/6	Chypra	3	1	2	-
8/6	chypra	2	1	1	-	15/6	chypra	2	1	1	-
8/6	chypra	1	-	-	-	16/6	Koufhatti	1	-	1	-
8/6	chypra	1	-	1	-	16/6	Kowka	1	-	1	-
8/6	chypra	1	1	-	-	16/6	Kowka	1	1	-	-
8/6	chypra	1	1	-	-	18/6	Mardul	2	-	1	1
9/6	Koufhatti	1	1	-	-	18/6	Mardul	1	1	-	-
11/6	Mardul	1	1	-	-	18/6	Mardul	1	-	1	-
11/6	Mardul	2	-	-	-	18/6	Mardul	1	-	-	-
11/6	Mardul	3	-	-	-	18/6	"	1	1	-	-
11/6	Seethal	2	-	1	1	20/6	Kahrah	2	-	1	1
13/6	Bahetal	1	-	1	-	20/6	Kahrah	2	-	1	1
13/6	Bahetal	1	-	1	-	20/6	Kahrah	1	1	-	-
13/6	Bahetal	1	-	1	-	20/6	Kahrah	1	-	1	-
13/6	Bahetal	1	1	-	-	22/6	Bahetal	22	-	-	-
13/6	"	2	-	1	1	22/6	Bahetal	9	-	-	-
13/6	"	3	-	2	1	23/6	Koufhatti	3	3	-	-
13/6	Bahetal	2	-	-	-	23/6	Koufhatti	1	1	-	-
15/6	Chypra	4	1	2	1	23/6	Koufhatti	1	-	1	-
		1	-	1	-	25/6	Chypra	3	-	-	-
		2	-	1	1	25/6	chypra	1	-	-	-
		3	-	3	-	25/6	Koufhatti	1	1	-	-
		3	2	1	-	25/6	Koufhatti	1	-	1	-
		2	-	1	1	25/6	Koufhatti	3	1	2	-
		7	3	4	-	25/6	Kowka	1	1	-	-
15/6	chypra	6	2	3	1	25/6	chypra	3	1	1	1
15/6	chypra	7	-	-	-	25/6	chypra	3	2	1	-
15/6	chypra	2	1	1	-	25/6	chypra	4	-	2	2
15/6	chypra	2	2	-	-	25/6	chypra	1	1	-	-
15/6	Koufhatti	1	-	1	-	25/6	chypra	3	-	2	1
15/6	Chypra	1	1	-	-	25/6	chypra	2	2	-	-
15/6	Chypra	3	1	1	1	25/6	chypra	4	1	2	1
15/6	Chypra	5	2	2	2	25/6	Chypra	1	-	1	-

loosely aggregated

Date	Place	♀ size	♂	♀	Y
25/6	chpra	5	2	2	1
25/6	chpra	1	-	1	-
27/6	Naval	1	-	-	-
27/6	Nav	1	1	-	-
27/6	Naval	1	1	-	-
27/6	Nav	3	1	1	1
27/6	Naval	1	1	-	-
29/6	Kowha	2	-	1	1
29/6	chpra	3	3	-	-
29/6	chpra	3	4	2	1
29/6	chpra	1	1	-	-
30/6	chpra	2	1	1	-
30/6	chpra	1	-	1	-
30/6	Kowha	1	1	-	-
30/6	Kowha	1	-	-	-
1/7	Kowha	2	-	-	-
1/7	Kowha	1	-	-	-
2/7	chpra	2	-	-	-
2/7	chpra	1	-	-	-
2/7	chpra	1	1	-	-
3/7	chpra	1	-	1	-
4/7	Naval	1	-	-	-
4/7	Naval	2	1	-	-
4/7	Naval	1	-	-	-
4/7	Naval	1	-	1	-
4/7	Naval	3	1	1	α 1
4/7	Naval	1	1	-	-
4/7	Naval	1	-	1	-
4/7	Naval	3	♀	2	1
4/7	Nav	1	-	-	-
4/7	Naval	1	-	-	-

# Q. Qureshi

Date	Place	q-size	♂	♀	♂	Date	Place	q-size	♂	♀	♂	♀
28/11	Kakraka	2	-	2	-	10/3	Kakraka	6	-	-	-	-
28/11	↓	1	-	1	-	11/3		2	-	1	1	
28/11	↓	1	(v)	-	-	11/3		3	2	-	-	
29/11	Kakraka	2	-	1	1	12/3		6	-	2	2	
29/11	Kakraka	4	-	-	-	12/3		4	-	-	-	
29/11	Kakraka	3	-	-	-	12/3		3	-	-	-	
25/12		3	-	3	-	13/3		3	2(v)	-	1	
25/12		1	-	1	-	13/3		3	2(v)	-	1	
25/12		5	-	-	-	13/3		1	-	1	-	
25/12		1	-	-	-	13/3		2	-	2	-	
25/12		1	-	-	-	13/3		1	-	1	-	
25/12		1	-	1	-	14/3		2	-	1	1	
26/12		1	-	1	-	14/3		2	-	1	1	
26/12		2	(v)	1	-	14/3		3	-	2	1	
26/12		9	✓	✓	✓	14/3		6	-	-	-	
26/12	↓	1	-	-	-	14/3		7	-	-	-	
26/12	Kakraka					15/3		1	1	-	-	
3/3	Sattara	2	-	-	-	16/3		2	-	1	-	
4/3	Kakraka	4	-	2	2	16/3		2	-	1	1	
4/3		2	2(v)	-	-	16/3		3	1	1	1	
5/3		1	-	-	-	18/3		4	-	2	2	
9/3		2	-	1	1	19/3		3	-	-	-	
9/3		2	(v)	1	1	19/3		3	1(v)	1	1	
9/3		2	(v)	1	-	19/3		1	-	1	-	
9/3		1	(H)	-	-	19/3		4	1(H)	2	1	
9/3		2	-	2	-	19/3		2	-	-	-	
9/3		2	1	1	-	19/3		2	-	-	-	
9/3		3	-	2	1	19/3	↓	1	(v)	-	-	
9/3	↓	1	-	-	1	19/3	Kakraka	2	-	-	-	

Date	Area	gsiz	♂	♀	Y	Date	Area	gsiz	♂	♀	Y
19/3	Kakrah	1	-	1	-	10/4	Kakrah	1	-	-	-
19/3		7	-	-	-	10/4		2	-	1	1
19/3		1	-	1	-	10/4		1	-	1	-
23/3		1	-	1	-	10/4		1	1	-	-
23/3		3	-	2	1	11/4		8	-	-	-
23/3		10	-	-	-	11/4		1	1(u)	-	-
23/3		2	2	-	-	11/4		1	1(H)	-	-
23/3		3	-	2	1	11/4		1	-	1	-
23/3		2	-	-	-	12/4		9	-	-	-
2/4		2	-	-	-	12/4		10	-	-	-
2/4		1*	-	1	-	12/4		6	-	-	-
2/4		1*	5	1	-	12/4		1	-	-	1
2/4		2	-	2	-	12/4		40	-	-	-
2/4		20	4(H)	-	-	18/4		1	-	-	-
2/4		1	1(u)	-	-	18/4	✓	1	-	-	1
2/4		5	-	-	-	18/4	Kakrah	2	-	2	-
3/4		2	-	2	-	23/5	Sattara	1	1(H)	-	-
3/4		1	-	-	1	23/5	Sattara	1	-	1	-
3/4		6	-	-	-	1/5	Sattara	2	-	1	1
3/4		19	-	-	-	<del>3/5</del> 1/5	Sattara	1	1(H)	-	-
3/4		4	-	-	-	3/5	Kakrah	3	-	-	-
3/4		1	-	1	-	3/5		1	-	-	-
3/4		1	1	-	-	3/5		1	-	1	-
3/4		6	3	2	1	4/5		4	-	3	1
10/4		2	-	-	-	4/5		3	1	2	-
10/4		15	-	-	-	4/5		2	-	2	-
10/4		1	-	-	1	4/5		3	-	3	-
10/4		1	-	-	1	4/5		1	-	1	-
10/4	✓	1	-	1	-	4/5	↓	1	1	-	-
10/4	Kakrah	1	-	5	1	4/5	Kakrah	1	-	-	-

Scattered

QAMAR QURESHI

QAMAR						QURESHI					
Date	Area	q-size	♂	♀	Y	Date	Area	q-size	♂	♀	Y
4/6	Kakrah	1	-	1	-	12/6	Kakrah	2	2(h)	-	-
4/6		1	-	-	-	12/6		1	-	1	-
5/6		3	1(h)	1	1	12/6		1	-	1	-
5/6		1	-	-	-	12/6		2	-	1	1
5/6		2	-	1	1	13/6		2	-	1	1
5/6		2	-	2	-	13/6		1	(h)	-	-
5/6		4	-	3	1	13/6		1	-	1	-
5/6		2	-	1	1	13/6		2	1(h)	1	-
5/6		2	-	1	1	14/6		4	-	-	-
5/6		2(h)	2(h)	-	-	14/6		5	2(h)	2	1
5/6		4	2(h)	1	1	14/6		11	-	-	-
5/6		1	1(h)	-	-	17/6		2	-	1	1
5/6		2	1(h)	1	-	17/6		1	-	♀	1
5/6		1	1(h)	-	-	17/6		2	-	1	1
6/6		14	-	-	-	17/6		2	1	1	-
6/6		2	-	-	-	17/6		1	-	1	-
6/6		3	1(h)	2	-	17/6		1	-	1	-
7/6		4	3(h)	1	-	17/6		3	-	3	-
7/6		1	-	1	-	17/6	Kakrah	1	-	-	1
7/6		1	-	-	-	17/6	Bauket	5	2(h)	3	-
7/6		2	1(h)	1	-	17/6	Bauket	8	4(h)	4	-
7/6		1	-	1	-	18/6	Kakrah	1	1(h)	-	-
8/6		2	-	1	1	18/6		6	1(h)	3	†
8/6		2	-	1	1	18/6		3	1(h)	2	-
8/6		1	-	1	-	18/6		1	-	-	-
8/6		1	1(h)	-	-	18/6		2	-	1	1
8/6		2	-	1	1	20/6		2	1(h)	1	-
8/6		2	-	1	1	20/6		1	1(h)	-	-
8/6		1	1(h)	-	-	20/6		1	-	1	-
8/6		1	-	1	-	20/6		1	-	1	-
8/6	Kakrah	2	-	1	1	20/6	Kakrah	1	-	1	-

Date	Area	Gr-size	♂	♀	γ
20/6	Kakrah	2	1	1	-
20/6		1	(0)	-	-
20/6		2	-	1	1
20/6		1	-	1	-
20/6		1	-	1	-
20/6		2	(4)	1	-
20/6		9	-	-	-
20/6		3	(4)	1	1
21/6	↓	31	-	-	-
21/6	Kakrah	4	1	2	1
4/7	Kahy	2	1	1	-
4/7	"	1	1	-	-
4/7	"	1	-	1	-
4/7	"	1	-	1	-
5/7	Kahy	1	1	-	-