



1. Morality Details:

1.1 Age

The carcasses of the Gharials found dead are sub-adults and young adults in the age group six years to 11 years.

1.2 Sex

There is some confusion about the sex of the located dead animals. In some cases the genitalia were missing or the carcass was generally too putrefied to reliably sex the carcass. In MP 6 carcasses were sexed of which 1 was male and 5 females. In UP 14 were sexed among which there were 9 males and 5 females.

1.3 Dates of reported mortalities and number

Dates on which gharial carcasses were found	Number of gharial	
	MP	UP
08-12-07	-	01
09-12-07	02	-
10-12-07	02	06
09-12-07	-	-
10-12-07	-	-
11-12-07	-	06
12-12-07	04	-
13-12-07	03	02
14-12-07	-	05
TOTAL	11	20



Exact locale where these mortalities have occurred:

Within 1km upstream of the Etawah-Bhind road bridge downriver to village Sahson on the right bank of the river from Chakarnagar. This length of this section of the Chambal is 20-25 km.

1.4 Size of dead gharial

Total body lengths of (in m) of 9 carcasses recorded by authorities of Chambal Sanctuary in MP and 13 in UP are given in the table below: The sizes recorded represent sub-adult to young adult class of ages 6 to 10+ years.

	MP	UP
1	3.00	3.00
2	2.25	2.96
3	2.18	2.90
4	2.10	2.95
5	2.10	2.86
6	2.10	2.82
7	2.10	2.80
8	1.95	2.75
9	1.95	2.72
10		2.65
11		2.60
12		2.50
13		2.00

2. Possible Causes

The post mortem reports of the carcasses have not found any external injury, hence poaching has been ruled out. Reports from veterinarians have revealed irregularities in the gastro-intestinal tract. Water samples in this area have been despatched to study the



level of pollution. However it must be noted that non of the other species have been found effected

A more precise toxicological and pathological examination of the organs of the dead gharials have been sent to the vet nary college Jabalpur (MP) and Indian Veterinary Research Institute (IVRI) Bareilly and ITRC Lucknow. IVRI has found **lead** concentrations between 0.7-1.4 ppm in the dead animals.

2.1 Preliminary finding of IVRI is as follows:

'Morbid formalin fixed materials of different organs form six dead crocodiles were received (4 on 13.12. 07: 163-166-S/2007 and 2 on 17.12.07: 168-169-S/07) for histopathological examination. The tissues from liver and kidneys showed extensive degenerative changes with consistent presence of various stages of protozoan parasite morphologically indistinguishable from *Klossiella* species in hepatocytes, tubular epithelial cells as well as epithelial cells of Bowman's capsule. It is concluded that the mortality in Ghariyals is due to extensive hepato-renal damage caused by protozoa, *Klossiella* species. 'Reports from other organisation are awaited.