

Project Update: November 2013

Objective 1 -Determine the status and distribution of muggers in Charotar region

As many as 22 potential wetlands/water bodies have been surveyed till now, out of which we found the occurrence of muggers in 11 wetlands. Out of these wetlands six wetlands have a very healthy population of muggers ranging from 3-15 individuals. We have been intensively monitoring these six wetlands since last four months. However due to heavy rains during the monsoon (July-September), it was not possible to carry out the field work properly. We will be conducting more surveys in other wetlands (~40) in the coming months. We also carried out the nesting/burrow survey of the wetlands and found a good number of active burrows (Figure 2). Winter (Nov - Feb) in India is a good time to conduct population count due to more basking activity by the mugger, which we will use to the fullest to estimate the population.

Figure 1. Direct sightings of the crocodiles during the surveys till 30th October 2013.

| Sr. No | Wetlands | Type of wetlands | Day count | Night Count (eye-shine technique) |
|--------|----------|----------------------|-----------|-----------------------------------|
| 1 | Deva | Village Pond , Small | 1-5 | 1-15 |
| 2 | Deva | Mahi Canal | 2 | 3-5 |
| 3 | Heranj | Main Pond, Medium, | 3 | 3 |
| 4 | Traj | Village Pond, Small | 1-3 | 1-4 |
| 5 | Malataj | Village Pond, Small | 1-7 | 1-10 |
| 6 | Dabhou | Village Pond, Small | 2 | 0 |
| 7 | Vaso | Village Pond, Small | 1-2 | 3-6 |
| 8 | Peej | Village Pond, Small | 1 | 1 |

Figure 2. Burrows/Den observed during the survey till 30th October 2013.

| Sr. No. | Wetlands | Active | Inactive | Total |
|---------|----------------------|--------|----------|-------|
| 1 | Deva, Village Pond | 5 | 26 | 31 |
| 2 | Deva, Mahi Canal | 3 | 1 | 4 |
| 3 | Traj | 2 | 4 | 6 |
| 4 | Vaso | 2 | 2 | 4 |
| 5 | Vaso, Canal | 0 | 1 | 1 |
| 6 | Malataj | 4 | 1 | 5 |
| 7 | Heranj- Village pond | 2 | 1 | 3 |
| 8 | Heranj-Main pond | 3 | 2 | 5 |
| 9 | Bakrol | 1 | 0 | 1 |

Breeding/ Nesting

During the surveys we observed successful nesting and egg hatching at three places-

- 1) Bakrol (10-6-2013) – Two juveniles were found at Bakrol pond, however the female was not seen nearby. This could be because the villagers gathered in large number around the nest to see and photograph the juveniles, which might have startled the female.
- 2) Malataj (12-6-2013) 6 newly born juveniles were observed near a nest. The mother again couldn't be seen nearby.
- 3) Heranj (3-7-2013) More than 50 newly born juveniles were observed in a burrow. The mother could not be seen. The next day it rained heavily, due to which the burrow got flooded and many of the juveniles died. Since the burrow remained filled with water for many days we could not estimate the mortality occurred.

Objective 2 -Understand the socio-economic drivers of mugger distribution and prevailing threats

Updates- To this date, we have completed 40 interviews to assess the attitude and perceptions of the people, and plan to complete around 100 more interviews in the coming months. The results of the interviews have come up as mixed results, with majority of people having positive attitudes towards crocodile conservation. Two people whose animals were attacked by muggers were also interviewed.

Objective 3- Promote public awareness and education for the conservation of muggers

Updates- Educational materials such as brochures, pamphlets and posters are under preparation as I write this project update. Audio-Visual presentations have been prepared for education activities in schools. We will be starting the awareness and education programmes from the first week of December and will last till the end of the January.

Objective 4- conservation through capacity building

Updates- A very fruitful responses have been received by the project in terms of volunteers interested in becoming a part of the project. Students such Pratha Brahmhatt (M.Sc. Environmental Biotechnology), Kaushal Patel (M.Sc. Biotechnology), Neeraj (Computer Engineering) and Urvi Dave (B.Sc, Zoology) have volunteered with us on this project. Kaushal keen on making a career in nature conservation will keep volunteering with the project in the coming months too. We also have interested students from local schools who work as volunteers for the project during their holidays. We keep on receiving queries for volunteers regularly. In the next month, we have planned a large scale training program for volunteers

interested in ecology and conservation of Mugger. They will be first provided information on mugger ecology, their status and conservation prospects and then they will be trained in conducting population estimation, attitude and conflict surveys. These volunteers will then collect data for the project.

We have already posted the advertisement for invitation our website and through social media. Interested youths from the village harboring the mugger occupied wetlands have also been identified and will be given training in monitoring the muggers, who will closely work with us in future monitoring and conservation, as well as education programmes. Preparation for the training of the forest staff in mugger rescue and rehabilitation is on road and will be conducted in the month of January.

PHOTOGRAPHS OF THE PROJECT ACTIVITIES



A) Project team meeting



B) Team surveying the wetlands



C) Monitoring the burrow/den for Mugger presence



D) Measuring the Burrow/den dimensions and habitat



E) Researchers interviewing the villagers



F) Volunteers interviewing the villagers



G) Mehul Patel (a team member) carrying out awareness programme.



H) A cow injured from a mugger attack. This picture was taken a week after.



I) A typical burrow/den of a mugger



J) A mugger (5.2 ft) was hit by a speeding vehicle. It died on the spot.