

Project Update: September 2013

INTRODUCTION

The Gharial, *Gavialis gangeticus*, is a charismatic endemic crocodylian of South Asia. Amongst the rarest members of its order, the species was recently upgraded from “Endangered” to “Critically Endangered”, (IUCN 2007) and the strength of wild breeding population has been recently estimated as not exceeding 200 individuals (Whitaker, in litt, 2006). A species rehabilitation programme, the main thrust of which was ‘headstarting’, along with other actions like establishing Protected Areas, partial mitigation of anthropogenic pressures and physical enforcement of wildlife laws was successful in boosting its population in certain areas. The Corbett Tiger Reserve (CTR) is one of the habitats where some degree of success was attained in rehabilitating this species, with conclusive signs of some recruitment from the released stock into the adult population. Surveys were conducted in Corbett Tiger Reserve in 2008 by Subir Mario Chowfin and a population of over a 100 gharial of various size classes consisting of 42 adults (which included 10 adult males) were enumerated. Breeding was confirmed here for the first time in over 30 years during these surveys. Mugger Crocodiles and a few species of freshwater turtles were also found to co-exist with gharial in many parts of the Reserve.

Corbett Tiger Reserve at present is home to the third largest breeding population of gharial and contributes approximately 21% to the world’s population of wild gharial. It is the only known population of the species to be living in a lake – like environment making this population truly unique as other populations inhabit free flowing river systems.

THE PROJECT AREA

The core area of Corbett Tiger Reserve, formerly known as Hailey National Park, was the first such Park to be created in India in 1936. It was renamed Corbett National Park in 1956-57 and declared a Tiger Reserve in 1991. The reserve is situated at the foothills of the Western Himalayas in the civil districts of Nainital and Pauri Garhwal in Uttarakhand and encompasses an area of 1288.32 km². This is comprised by 520.82 km² of Corbett National Park, 301.18 km² of Sonanadi Wildlife Sanctuary and the remaining 466.32 km² are buffer areas. The reserve lies between Latitudes 29.25N to 29.40N and Longitude 78.5E to 79.5E. Geologically the park belongs to Shivalik formations composed of conglomerates, sand, rocks, stones and boulders. The altitude varies from 350-1200 m with undulating topography. The building of the Kalagarh Dam in 1974 on the Ramganga River led to the formation of the Kalagarh Reservoir altering gharial habitat in Corbett.



NECESSITY OF A TRAINING PROGRAMME FOR FOREST STAFF

As a result of the surveys conducted in 2008 and the subsequent importance of the gharial population in Corbett Tiger Reserve regular monitoring of this population is important so as to understand population increases or declines and formulate a Conservation Plan for the species here.

Frontline Forest Staff are an important resource in monitoring these aquatic species which consist of gharial, mugger and freshwater turtles. However, lack of awareness, understanding and importance of these species among the frontline staff in Corbett is a drawback to developing an effective monitoring programme for these species here. To overcome this a Training Programme for these staff has been conceptualized so as to make them an effective work force in Crocodilian and Freshwater Turtle conservation initiatives in Corbett Tiger Reserve.

ACTIVITIES

The focus of this Training Programme is based on “Capacity Building” of the Forest Staff in basic techniques associated with monitoring these species in the wild. Drifting away from purely

classroom-based lectures training sessions are being conducted by visiting forest staff in remote areas of the reserve at their outposts.

Activities being conducted under the present training programme include:

(a) Training Manual

A training manual cum information booklet has been developed with a focus on crocodilians found in Corbett Tiger Reserve. The booklet includes general information on gharial and mugger taxonomy, diet, reproduction and basic techniques for monitoring these species under field conditions. These booklets have been printed in both English and Hindi and are being distributed to the staff during the training sessions.

(b) Audio – Visual Presentation

In addition to the Training Manual cum Information Booklet an audio – visual presentation has been formulated. The presentation specific to these species in Corbett Tiger Reserve explores the importance of Corbett Tiger Reserve and its contribution for the conservation of these species, differences between gharial and mugger, their nesting behavior, evidences of these species encountered in the field and basic information of these species in Corbett Tiger Reserve.

(c) Field Excursions

The Training Programme lays a strong emphasis on field work and capacity building of forest staff by undergoing excursions involving basic monitoring techniques. The programme lays emphasis on a “hands – on” practical format as compared to a rigid classroom-based format.

Forest staff in Corbett Tiger Reserve man outposts in remote locations and extra effort is taken to visit these areas and undertake training sessions with the forest staff. Training sessions at these outposts are generally conducted with small, manageable groups of 2- 4 forest staff.

Sessions are generally a day long and are normally initiated with the Audio – Visual Presentation and followed by a Question and Answer Session. Many of these outposts lack electricity and the AV sessions are conducted on laptops. These sessions are followed by field excursions where forest staff are introduced to the basics of crocodilian monitoring. Important aspects of the field excursions include recognition of crocodilian signs, safe distances for observing crocodiles, basic size estimates based on ocular observations and differentiation between gharial and mugger.

As crocodilian activity is seasonal with different seasons for basking, breeding and nesting the training schedules are being undertaken keeping these important factors in mind and field sessions are conducted accordingly.

Forest Staff during field excursions are encouraged to ask questions that may seem pertinent at the time and situation and care is taken to address their queries.

(d) Expansion of Training Programme

The present training programme has as its target group mainly frontline forest staff. The Uttarakhand Forest Department also has a training school for its new recruits in Corbett Tiger Reserve. It is felt that expanding the training programme to include these new recruits would benefit crocodilian and freshwater turtle conservation and the training programme would be expanded to include these recruits in the coming months.

(e) Preliminary Surveys

In addition to the training programme, preliminary surveys have also been conducted in the Corbett National Park (CNP) area of the Corbett Tiger Reserve. Some interesting findings during these surveys include:

- Evidence of population growth amongst adult size classes in certain sub-populations of gharial in Corbett National Park.
- Changes in spatial distribution of gharial in certain areas as compared to the 2008 surveys.
- Important population of Ganges Softshell Turtle (*Nilssonina gangeticus*) identified in Corbett National Park.
- Confirmation of nesting in Corbett National Park of gharial as well as freshwater turtles.

(f) Fund Raising

In addition to the Grant of USD\$ 5000 made available by The MBZ Species Conservation Fund for the Training Programme various grants have been made available for surveys and monitoring of crocodiles and freshwater turtles in Corbett Tiger Reserve. These include:

- A grant of USD\$ 1000 from the Doris Norden Foundation for Herpetology for preliminary surveys.
- A grant of GBP £ 6000 from the Rufford Small Grant for Nature Conservation for monitoring.

(g) Partnerships

The project is supported locally by The Gadoli and Manda Khal Wildlife Conservation Trust. In addition, Dr. Alison Leslie, Regional Vice-Chair for South & East Africa, Crocodile Specialist Group, IUCN has consented to be Scientific Advisor to the Project through a Memorandum of Understanding.

Colour Plate (1) : Training Programme



Fig 1 and 2: Staff taking part in field excursions



Fig 3: Recognizing Crocodilian signs in the field. Fig 4: Audio Visual Sessions

Colour Plate (2): Preliminary Surveys



Fig 1 and 2: Representatives of the *Nilssonina gangeticus* population located in CNP



Fig 3: Gharial nest in CNP. Fig 4: Gharial Nesting Site in CNP

Training Programme Funded by

