

Highlights of the Population and Habitat Viability Assessment for Western Hoolock Gibbon (*Bunopithecus hoolock hoolock*) held in Bangladesh

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Western Hoolock Gibbon (*Bunopithecus hoolock hoolock*) was assessed as Critically Endangered in Bangladesh and Endangered in India in the 2002 Conservation Assessment and Management Plan Workshop, organised collaboratively by Zoo Outreach Organisation, CBSG, South Asia and Primate Specialist Group, Asia Subgroup, held in India at the State Forest Service College, Coimbatore.

Hoolock Gibbon is South Asia's only gibbon species and as such it's the only ape, besides human beings; it is restricted in distribution to Northeastern India and Bangladesh. It is therefore quite a unique and special animal which both countries treasure, or should do. The Bangladesh population having been assessed as Critically Endangered was felt to have the least options and least time for effective action, hence the decision to hold the workshop in Bangladesh. Fifty-three participants, including many primate experts from Bangladesh, India and the United States attended the workshop from 14-18 February 2005 at Bangladesh Institute of Administration and Management (BIAM) to assess in detail the current status of Western Hoolock Gibbon throughout its range. Organisers and collaborators were Wildlife Trust of Bangladesh, the Forest Department of Bangladesh, Zoo Outreach Organisation, Conservation Breeding Specialist Group, South Asia and Primate Specialist Group, South Asia.

The U.S. Fish and Wildlife Service, Great Ape Fund, which has been funding field studies both in Bangladesh and India, kindly agreed to fund the workshop including international travel for participants from India and a generous education component for follow up. The Primate Action Fund and Appenheul Primate Park covered the costs of Phil Miller, Sr. Programme Officer of CBSG and an expert in VORTEX and CBSG process tools. Twycross Zoo covered the costs of Alan Mootnick, of the California based Gibbon Conservation Centre, who is an expert on gibbon taxonomy and captive management. Other organisations may contribute to the extensive education and lobbying follow-up of this important workshop.

A Population and Habitat Viability Assessment (PHVA) is a workshop process developed by late Dr. U. S. Seal and Dr. Tom Foose of the IUCN SSC Conservation Breeding Specialist Group some years ago, using a Population Viability Assessment (PVA) computer simulation model called VORTEX developed by Dr. Bob Lacy, now Chairman of CBSG, and incorporating a variety of social elements with mathematical components. The PHVA process is an evolving methodology which is under almost continuous review.

An important component of the process is stakeholder participation, so in addition to an expert team which works with the computer model to convert biological, ecological and environmental information into figures which can be used in the model, there are wildlife researchers and managers, foresters, educators, legislation and policy-makers and others from the area or region of the species. Involving a range of stakeholders improves the conservation decision-making process with local ownership of

recommendations developed and presented by workshop participants.

The workshop process generates extinction risk assessments based upon in-depth analysis of information on the life history, population dynamics, ecology, and history of the populations. Previous to the workshop, information on demography, genetics, and environmental factors pertinent to assessing population status and risk of extinction under current management scenarios and threats, is gathered and made available to participants during the workshop.

The following is a very brief overview of some highlights of the PHVA for Hoolock Gibbon and its follow-up work by a captive management specialist.

Highlights of the workshop output

The Modeling Group found that more than 60% of the populations in both India and Bangladesh were in immediate threat of extinction with the time to extinction from 20 – 40 years. The PVA could be done very successfully because the information that was provided from both India and Bangladesh was not just sufficient but outstanding. Dr. Dilip Chetry representing northeastern India and Dr. M. M. Feroz representing Bangladesh presented overviews of the Hoolock Gibbon populations and of research carried out both before and after the 2002 CAMP.

There is still work to be done in the area of research such as on the border areas between India and Bangladesh and India and Myanmar, which needs to be surveyed. In addition, the largest population and largest range locality in Bangladesh needs to be resurveyed following the recent completion of a gas pipeline project and the daily presence of individuals guarding the project.

Also, as it was noted that 8 populations in Bangladesh having become extinct in the last few years, the causes of extinction are only generally known. A systematic study of each locality to determine the exact causes of extinction would be valuable information for somehow preserving some of the others.

It is fairly obvious that the only hope for some of the remaining very small populations is translocation to larger areas, of which there are very very few. Capture for captive breeding and reintroduction was overwhelmingly rejected as an option for Bangladesh by the workshop due to the fragility of the species, the difficulties inherent in reintroduction and the dearth of secure localities even for translocation. Habitat loss accounts for most of the threats to Hoolock Gibbon. Without addressing that very seriously, the species may not survive another half century.

The Population and Habitat Viability Assessment helped participants to better organize their knowledge and come out with scientifically based recommendations. The information on which these decisions are made is the most current and best available to date with recommendations are

designed to minimize the risk of extinction of the species. A Draft Report is almost complete which will be circulated to all participants for comment and then brought out as a published Report. This detailed Report supporting the recommendations and describing a methodology for implementing them will be distributed to policy makers, politicians and other stakeholders in Bangladesh and India. A systematic and sustained follow-up for both India and Bangladesh is to be driven by Zoo Outreach Organisation in India and Wildlife Trust of Bangladesh in Bangladesh. Draft Recommendations follow. It is to be noted that these are in draft and are the version which was created for submission to the press.

Draft Recommendations of the PHVA Workshop for Western Hoolock Gibbon

1. In India, the Hoolock Gibbon is highly threatened due to habitat loss but been neglected compared to large mammals of the country. The workshop recommends submission of a Memorandum to the Ministry of Environment, Government of India and all the concerned state authorities requesting development of a "Project Gibbon" along the lines of Project Tiger for the long term conservation of gibbons.

2. Habitat loss is the primary reason for decline of Hoolock Gibbon in Bangladesh with 8 populations having become extinct in the last 15 years. This decline in habitat quality and quantity must be arrested through multi-species plantations, checking illegal felling and other measures.

3. Legislative support (currently being updated in Bangladesh) is urgently required for preventing illegal activities such as poaching, encroachment, etc. Legislation can be effectively implemented through a coordinated approach, nurturing working relationships with NGOs, academics, local communities, and policy makers, training and sensitizing legislative.

4. In Bangladesh, there are 22 known populations of Hoolock Gibbons, of which 18 have less than 10 animals. These are isolated and fragmented small populations which cannot survive due to their size and pressure on their habitat. It is urgently required to translocate these small populations to larger, viable habitats, unless the habitats for those groups can be improved and protected.

5. In Bangladesh, continued monitoring the Hoolock habitat is crucial and requires the following: more wildlife posts for patrolling, specific training for management in scientific monitoring methodology, and improved infrastructure.

6. Habitat loss / destruction clearly is the most important factor for decline of Hoolock Gibbon; therefore a firm commitment from politicians and policy makers for wildlife habitat protection is urgently required.

7. To minimize habitat loss, community based eco-development programmes should be developed in order to generate alternative livelihood to check illegal activities in and around Hoolock habitat.

8. No further Hoolock Gibbons should be captured from the wild for zoos or captive breeding centres; zoos should focus their conservation efforts on education, research and a cooperative breeding programme within the zoos currently holding Hoolock Gibbon.

9. Government should create a mechanism for permitting zoo staff and other researchers who have acquired training, experience, expertise and interest in the care and management of Hoolock Gibbon to take their promotions and remain in the zoo.

10. The education system and teaching capacity in rural and urban areas needs to be improved. This can be achieved by national level training for teachers and by including conservation topics in the curriculum and in informal education.

11. Much of the decline of Hoolock Gibbon in its range is due to the poverty of local people who are forced to depend on the forest for their livelihood. The workshop recommends that the socio-economic as well as educational status of the people be improved.

12. An attitudinal change towards conservation in politicians and general public can be created by sensitizing village-level eco-development committees and stakeholders about Hoolock Gibbon, and networking specialists, policymakers and law enforcement to join in dissemination of information. Use of celebrities as ambassadors also will be effective.

13. Zoo education should be given much more importance and attention with provision of printed material, attractive and effective signage, trained educators and a variety of organized activities. Zoos can also establish outreach programmes to educate rural people in/near range of Hoolock Gibbons.

14. Make available species and habitat information for reference: formulate a database on Hoolock Gibbon for the web and create educational tools for laypersons such as documentary films and other material.

15. Motivate religious leaders/teachers to promote wildlife conservation using their religious scriptures about wildlife and its conservation.

16. Husbandry, management and enclosures of Hoolock Gibbon in zoos requires much improvement. The workshop recommended a Management Plan for day to day care, a Cooperative Breeding Programme, a detailed Husbandry Manual of Hoolock Gibbon and a detailed assessment and recommendations on Hoolock Gibbon enclosures in both Bangladesh and India

