

CONSERVATION LEADERSHIP PROGRAM'S FUTURE CONSERVATIONIST AWARD 2012



# HIMALAYAN LANGUR PROJECT FINAL REPORT (2012-2013)

Conserving the Himalayan Grey Langur,  
*Semnopithecus ajax*, an Endangered, endemic  
species of primate.  
15 October 2013

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Project ID: 03103912

Project Title: Conserving the Himalayan Grey Langur, *Semnopithecus ajax*, an Endangered, endemic species of primate.

Host country, site location and the dates in the field:

India-Chamba, Himachal Pradesh- May 2012 to May 2013.

Names of any institutions involved in organizing the project or participating

Wildlife Information Liaison Development

The overall aim summarized in 10–15 words:

Holistic, community inclusive conservation in Chamba for the Endangered and endemic primate, *Semnopithecus ajax*.

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the handsome Himalayan Grey Langurs for the inspiration.

## Section 1:

### Summary (max 200 words)

The Himalayan Grey Langur Project is a pioneering initiative to study the distribution, taxonomy, ecology and conservation of the little known, Endangered and endemic *Semnopithecus ajax* (Himalayan Grey Langur) in the Chamba District of Himachal Pradesh, India. Field surveys and community interviews began in May, 2012. Of the 244 sites surveyed across the 5 of the 6 administrative blocks of Chamba District, langurs were found to be present in 124 sites as indicated by direct sighting and community interviews. The langurs face considerable antagonism due to crop raiding from the community as evident in 76 sites reporting conflict with langurs. The long standing taxonomic uncertainty distinguishing *Semnopithecus ajax* from the congeners *Semnopithecus schistaceus* and *Semnopithecus hector* was resolved with photographic morphological and observational data analyses, establishing that the langurs in Chamba are indeed *Semnopithecus ajax* as opposed to the langurs elsewhere in the Himalayan region. Other conservation threats such as agricultural expansion and deforestation were found, though not quantified due to lack of time and resource. Potential stakeholders have been identified and will be involved during the scaling up project. Three schools have agreed to host the Himalayan Langur conservation education program and the program is underway.

### Introduction (max 500 words)

The Himalayan Grey Langur, *Semnopithecus ajax*, is an Endangered leaf eating, long tailed monkey, currently known to be endemic to the Chamba Valley of Himachal Pradesh, India. The Alliance for Zero Extinction (AZE) species has remained virtually unknown since its description in 1928 by Reginald Innes Pocock. The Himalayan Langur Project is the first of its kind and the only initiative attempting long term field studies in Chamba, the type locality of the langur. The project aims to establish reliable information on the little known monkey through extensive field studies on the langur's ecology, biology and taxonomy to engender holistic conservation for the Langur in the region.

Current understanding, based on chance data and other spatial factors, indicate a dwindling population of less than <250 mature adults (Groves & Molur, 2008). The langur is threatened by other conservation issues such as deforestation, habitat degradation due to developmental activities, and expansion of agricultural and horticultural activities. Further, the taxonomic uncertainty shrouding the identity of the langur stands impasse to any conservation action in the region for the langur. The present situation warrants active conservation in Chamba.

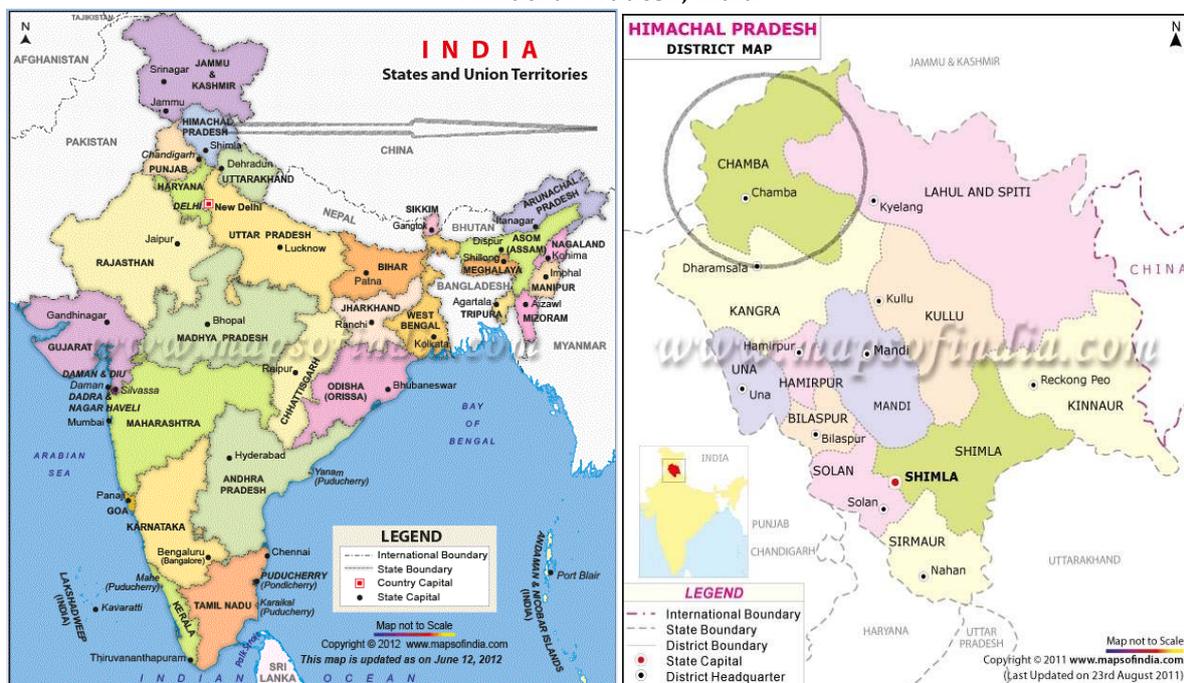
The Himalayan Langur Project sought to address this conservation issue through extensive baseline surveys in Chamba. The project was established in May, 2012 and completed its proposed objectives in May 2013. The project firstly addressed langur taxonomy through photographic and other observational study of langur morphology, re-established and confirmed the specific identity of the langur, as proposed by Pocock (1928) and Groves (2001). This attempt has indeed helped distinguish *Semnopithecus ajax* from its identical congeners *Semnopithecus schistaceus* (Central Himalayan Langur) and *Semnopithecus hector* (Tarai Grey Langur), aiding in designing a species specific conservation strategy.

Langur presence/absence across 244 sites was mapped establishing first hand information on the distribution of the Himalayan Grey Langur in its type locality. The langur's presence was confirmed in 124 sites across the Chamba District, either through direct sighting (39 sites) or community interviews (85 sites) or both. Human-primate relationship dynamics was assessed through community interviews wherein crop raiding presence/absence, frequency of crop raiding per year, kind of loss suffered due to crop raiding and mitigation strategies practiced were recorded. Seventy six sites have reported conflict with langurs due to crop raiding of which about 21.57% of the community interviewed expressed a negative attitude towards langurs due to crop raiding.

Conservation education and outreach is integral to the overall goal of the project. Three schools have agreed to host the conservation education program in Chamba. The team is now working with illustrators and animators to develop an introductory conservation education program for these schools. The host schools will then be invited to participate in long term Himalayan Langur Conservation Education programs administered through Eco clubs/Youth clubs established by the project in these schools. The project aims to build and evaluate conservation education program aiming to foster conservation sensitive behavior and ecological awareness in children.

Potential stakeholders have been identified and were briefed about the project. These stakeholders will be involved in the forthcoming conflict mitigation scaling up project proposed.

Map of Chamba District  
Himachal Pradesh, India.



## Project members

Martina Anandam: Team Leader

Martina is a graduate in Primate Conservation and has been working with Wildlife Information Liaison Development since 2011. She has worked on Species Assessment for Alliance for Zero Extinction, Historical and current distribution analyses of South Asian primates and has co-authored Handbook of the Mammals of World: Primates (Volume 3). Martina is a member of IUCN'S Primate Species Specialist Group. She is a Researcher with WILD and works the Himalayan Langur Project in Chamba, Himachal Pradesh.

Martina leads the Himalayan Langur Project and concerns with general project management, accounts, scientific research and publishing, and with public relations.

Praveen Vishal Ahuja: Team Member

Vishal is a native of Chamba and is a graduate of Botany and a teacher by trade. Vishal worked as a school teacher from 2008 to 2011 and in 2012, worked as a field investigator for JPS Associates (P) Ltd to formulate catchment area treatment plan for Ravi river basin project. Vishal joined WILD as a Researcher for the Himalayan Langur Project in 2012 and concerns with logistics of the team and is the herbarium keeper for the project.

Tariq Ahmed Shah: Team Member

Tariq is a graduate of Zoology and a trained entomologist. Tariq joined the Himalayan Langur Project in May 2012 as a Researcher. He helped Martina plan surveys and was in charge of equipment management and was the chief photographer of the team. Tariq left the project in May 2013 to pursue his PhD and is now in Hyderabad, India working his thesis.

## **Section 2:**

### Aim and objectives (max 200 words)

Goal: Establish a holistic conservation initiative at Chamba to conserve *Semnopithecus ajax*, its habitat the other co-existent congeners, wholly managed and monitored by the stakeholders: the state forest department and resident communities in the range of the primate.

Objectives:

1. Establish the current distribution, intensity of threats and risk of extinction of the Himalayan Grey Langur.
2. Evaluate historical and current people-primate interactions and the local community's perceptions of the species.
3. Conduct education and outreach program with the local communities and establish youth/eco club/s to foster positive action.

4. Establish a stakeholder network and a committee to deal with the short-term and long-term conservation action strategies.

Changes to objectives/strategies:

The intensity of threat to the focal species and habitat quality could not be quantified during the project term. The team was visiting most of the sites for the first time and therefore had little idea about the terrain and other logistical conditions. Besides lack of time and other unavoidable factors such as terrain conditions and unforeseen weather turbulence forced the team to retreat. The project though has collected data on conservation threats to advice future conservation measure and action.

#### Methodology (max 500 words)

*Taxonomy:* A long standing taxonomic uncertainty about Himalayan langurs was resolved using observational field data (Pounds, 1991) and photographic analyses (Tautz *et al*, 2003). The adult members of the species (male and female) were chosen for comparative analysis and their morphology deduced from photographs was compared with photographs of langurs from other parts of the Himalayan region. Selective features were teased out for morphological comparison (Dunn, 2003) such as (i) Coat type (ii) Coat colour (iii) Fore arm coloration and (iv) Hind leg coloration (Nag *et al*, 2007). The four features were compared across photographs taken from Chamba and from elsewhere in the Himalayan region and then compared to the type description of Pocock (1928). Observational field data complemented photographic evidence to correct for photographic error, in the case of *Semnopithecus ajax*. A comparative account was drawn and differences tabulated. Scat samples were also collected for DNA studies to complement morphology based taxonomic study (Lipscomb, 2003).

*Langur Distribution Mapping:* Langur presence/absence point locality coordinates, as inferred through direct sighting and community interviews, were noted using handheld GPS device (Geissman *et al*, 2010). The coordinates were then applied to mapping software: ArcView GIS and (i) Langur presence (ii) Langur Absence (iii) Langur presence inferred through direct sighting (iv) Langur presence inferred through indirect sighting (community interviews) was mapped.

*Conflict Zone Mapping:* Community interviews (Hill, 1997; Regmi *et al*, 2013) gathered data on langur crop raiding and human-langur relationship dynamics through questionnaire interviews. The survey recorded information on crops grown, frequency of crop raiding, crops favored by langurs, kind of loss suffered, peak crop raiding months, crop raiding mitigation strategies used and people's attitude towards langurs. This data was employed in mapping (i) Conflict zones: where crop raiding is present/where crop damage is suffered/where people hold an antagonistic attitude towards langurs due to crop raiding or any other factor. (ii) No-conflict zones: where there is no crop raiding.

*Conservation Education:* The primary objective of the education component of the project is to initiate a long term Education program in schools that would aim to foster and engender a conservation sensitive behavior and ecological awareness in schools. The curriculum followed in schools in the Chamba region were analyzed for its level of ecological and conservation component. Three schools have agreed to host Himalayan Langur Conservation Education Program: two tests and one control. The team is now working with a volunteer animator from Peru and an illustrator from Netherland to produce an animation program emphasizing the value of the Himalayan Grey Langur and the need for Conservation.

The program will be administered to schools in December as preferred by the Education Board and will be evaluated. (Jacobson, 2006).

*Stakeholder Network:* Potential stakeholders were identified: two Pachayat heads (Village heads), one local school teacher, one local Education Board Head, one local Administrative Head, Two local journalists, and Two forest officers were met with individually and briefed about the project, its objectives and how they can participate and help with the initiative. All afore mentioned have agreed to help during the scaling up process of the project.

#### Outputs and Results (max 500 words)

##### *Taxonomy:*

The adult langurs in Chamba were found to have a very bushy upper coat which appears to flow on either side when the animal stands on all its fours. This primary trait was missing in adult langurs from other parts of the Himalayan region. Other distinguishing characters of *Semnopithecus ajax* include dark grey forearms and dark grey thighs absent in langurs from other Himalayan region.



1.1 *Semnopithecus ajax*, Adult male of Chamba at Gajnoi, Chamba ~1600m amsl. The laterally flowing hair is evident and the darker forearms and thigh region is seen in the picture.



1.2. *Semnopithecus schistaceus*

Adult Male of Baglung District, Nepal  
~2000m amsl with tightly wound coat. The  
bushyflowing upper coat is absent.

Image Copyright:

Global Primate Network-Nepal.

1.3. *Semnopithecus hector*, Adult Male of  
Tarai Belt, Nepal, ~300m amsl. The bushy  
upper coat and darker shades of forearms  
and thighs are seen missing.

Image Copyright:

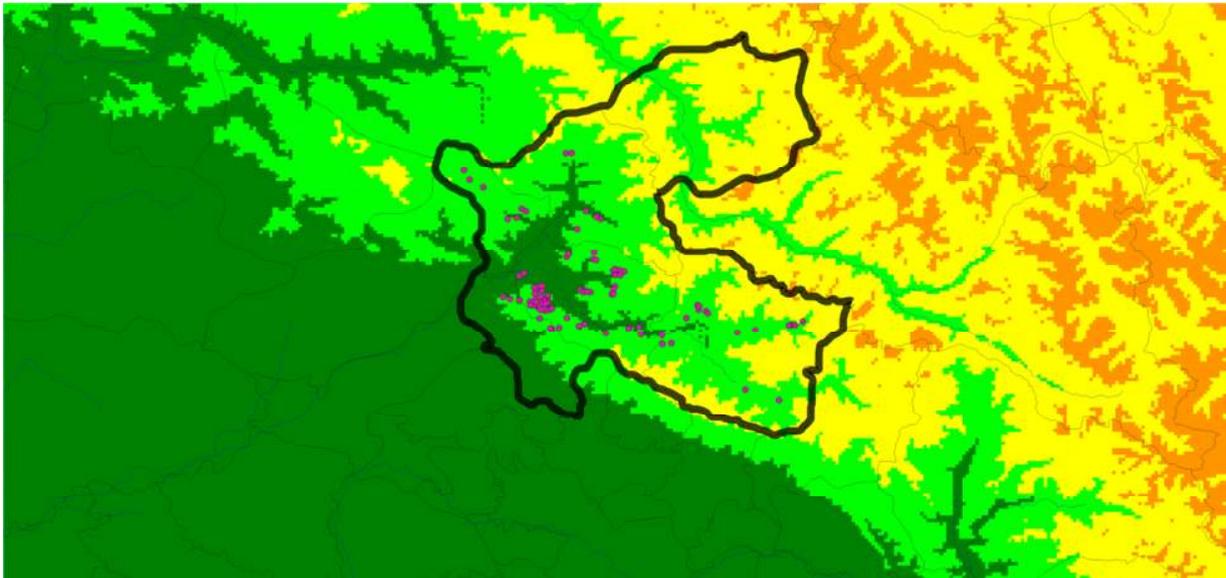
Global Primate Network-Nepal.



*Langur Distribution and Mapping:*

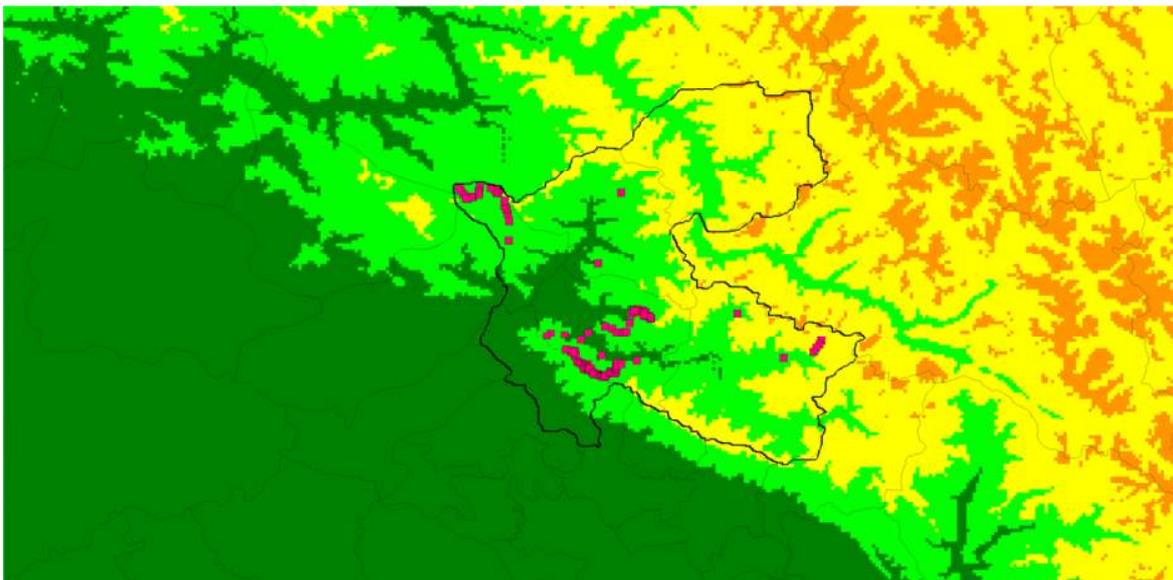
Langur Presence/Distribution in Chamba, Himachal Pradesh:

Langurs were found to be present in 124 of the 244 sites surveyed in Chamba District through field surveys and community interviews (Refer Appendix 1-Excel Sheet (1): Langur Presence)



Map 1 *Semnopithecus ajax* Distribution in Chamba, Himachal Pradesh, India.

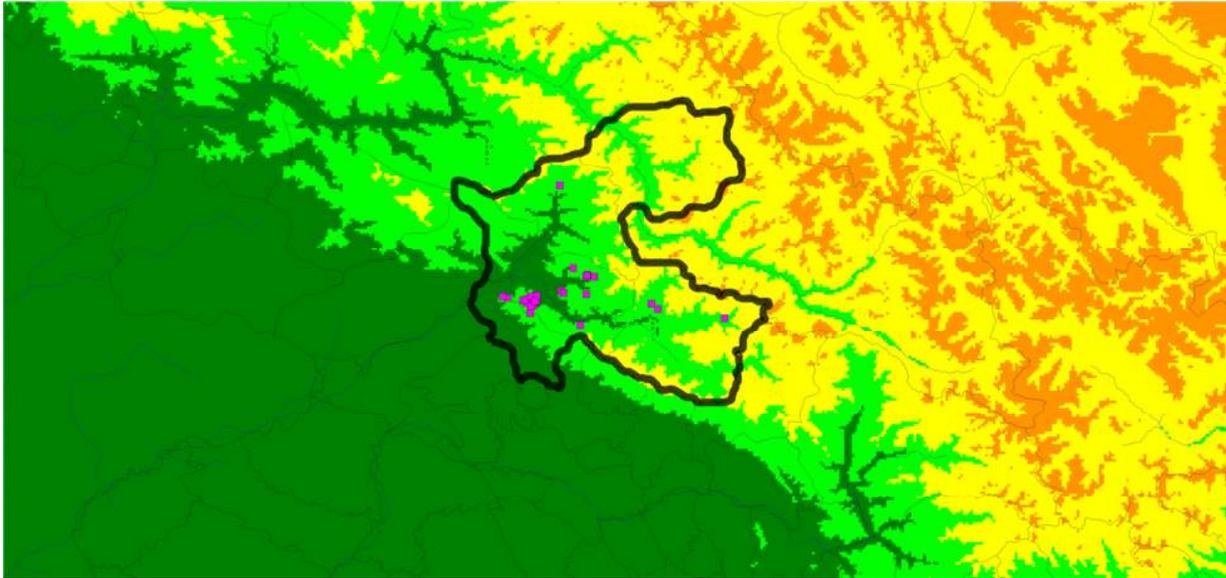
Langur absence: Langurs were found absent in 120 sites of the 244 surveyed as indicated by community interviews. (Refer Appendix 1-Excel Sheet (2): Langur Absence)



Map 2 *Semnopithecus ajax*: sites where langurs are absent.

*Langur Direct Sighting:*

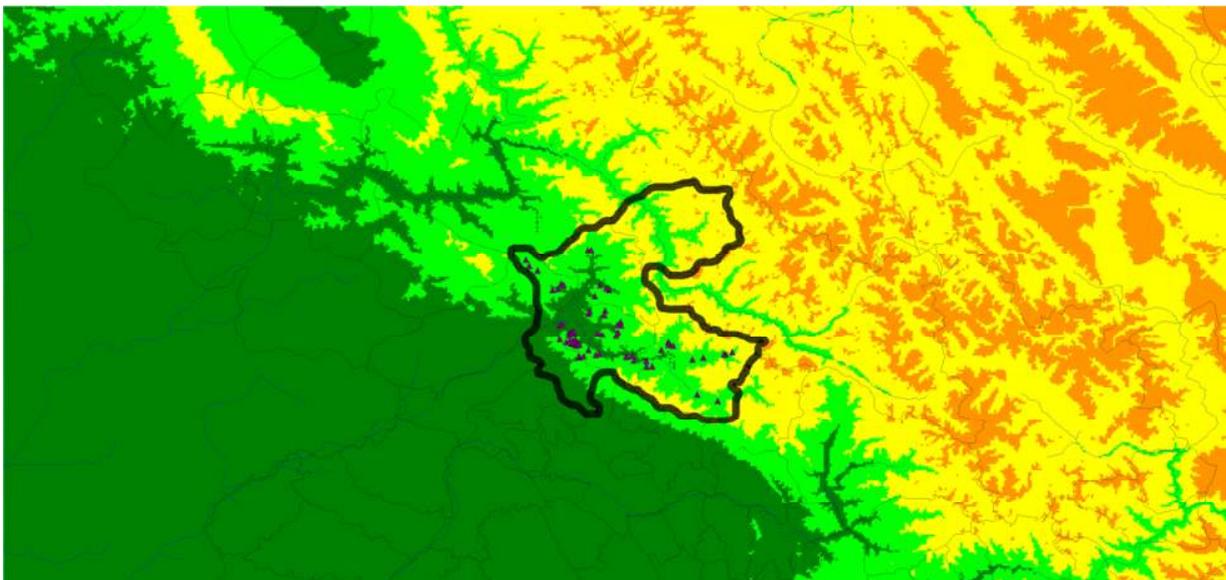
Langurs were directly sighted in 39 sites (Refer Appendix 1: Excel Sheet (3): Sites of Langur Direct Sighting)



Map 3 *Semnopithecus ajax*: Sites of Langur Direct Sighting

*Langur Indirect Sighting:*

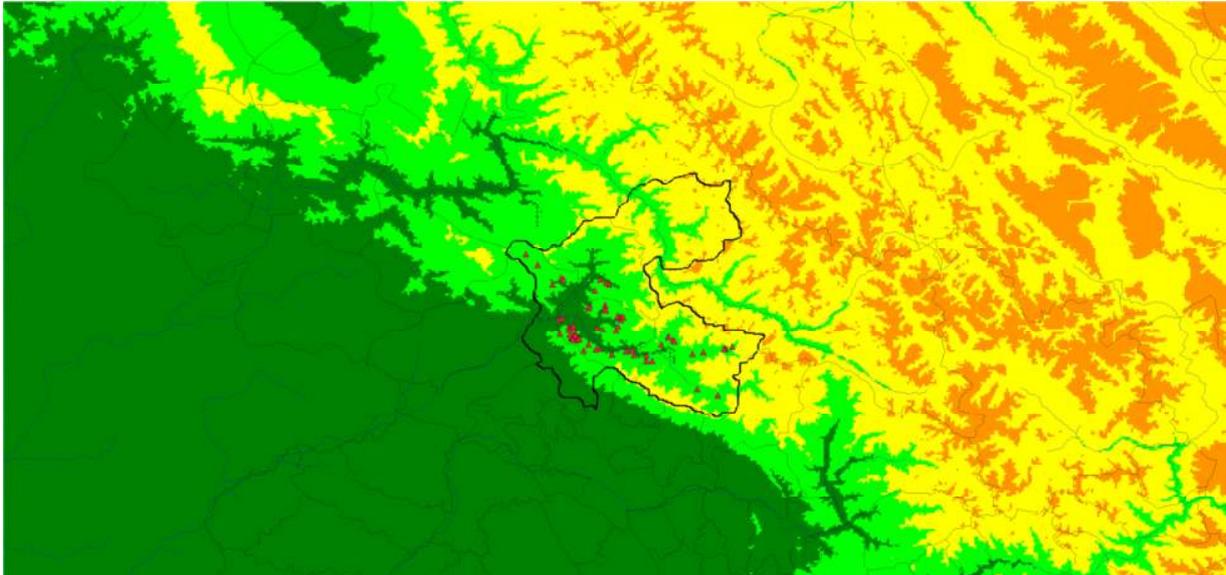
Langur presence was indirectly deduced through community interviews in 85 sites. (Refer Appendix 1: Excel Sheet (4): Sites of Langur Indirect Sighting)



MAP 4 *Semnopithecus ajax* Sites of Langur Indirect Sighting

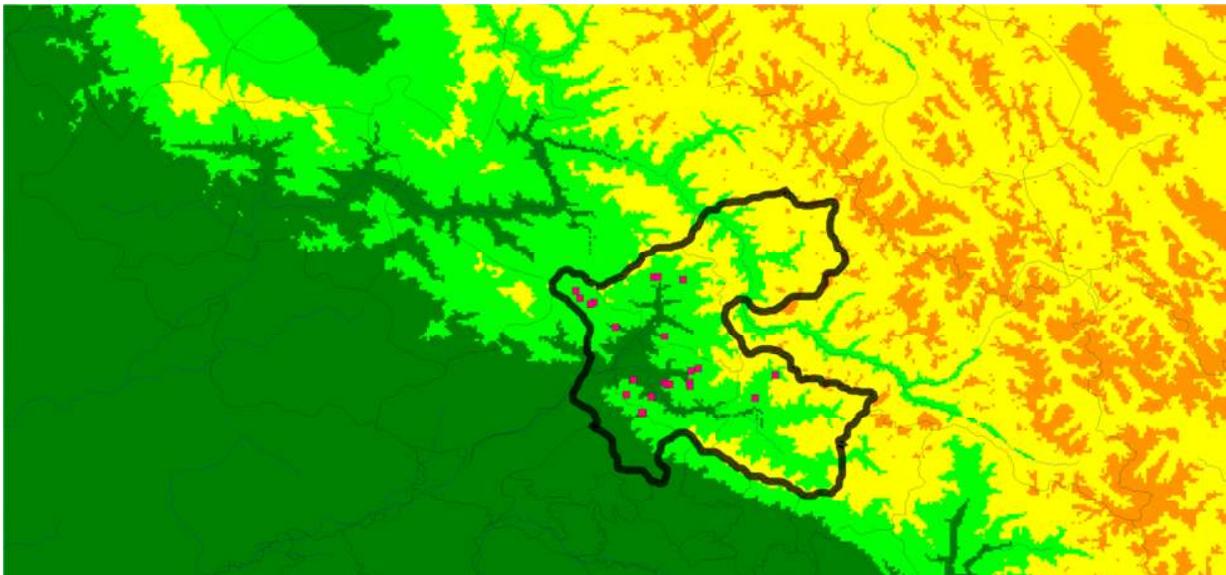
*Conflict Zone Mapping:*

Seventy six sites reported crop raiding with langurs and thus conflict of resources. (Refer Appendix 1: Excel Sheet (5): Conflict Zones)



Map 5 *Sennopithecus ajax* Conflict Zones

No conflict zones: Twenty eight sites reported zero crop raiding and thus no conflict with langurs over resources. (Refer Appendix 1: Excel Sheet (6): No Conflict Zones)



Map 6 *Sennopithecus ajax*: No conflict zones

No community interviews were conducted in the remaining 140 sites as these were forest trails and no community was in vicinity.

*People's Perception of Langurs:* Community's attitudes towards langurs were assessed through questionnaire interviews. About 25% of surveyed communities were found intolerant to crop raiding indicated by a 'highly negative' and 'negative' attitudes reported. Highly negative attitude could mean communities wanting drastic measures against crop raiding langurs or wanting to *exterminate the langurs* and *seeking ways to exterminate the langurs*, characterized by complete intolerance to crop-raiding langurs. A 'negative attitude' could be defined by intolerance to crop-raiding and desire to remove the langurs from the community but not exterminate them.

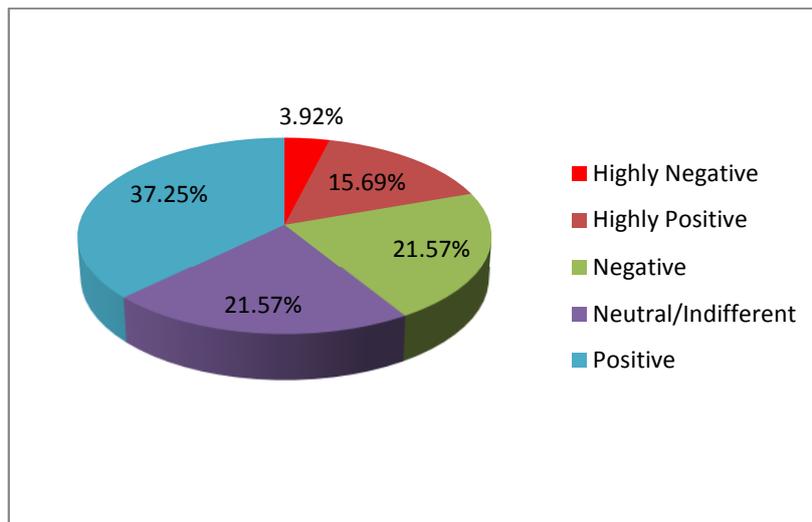


Figure 1 *Semnopithecus ajax*: People's attitude towards langurs

About 75% of the surveyed community expressed a positive and tolerant attitude towards langurs, despite suffering crop loss and damage, as indicated by the 'positive', 'highly positive' and 'neutral attitude'. 'Positive' understood as people suffering damage but not wanting to rid the community of langurs. They would like the crop-raiding to be lessened, if possible. 'Highly positive' could be explained as people suffering minimal raiding or no raiding and like the langurs to dwell around the community. Neutral attitude is when people suffer damage due to crop raiding but are indifferent to the activity or the causative agent, the langurs, either because the loss suffered is negligible or because the raiding activity is infrequent.

*Crop- raiding deterrent strategies:* Six major crop raiding deterrent strategies are practiced in the communities of Chamba, of which noise (shouting and drums), throwing stones and dogs to chase langurs off field are the most practiced. Hand held mirrors were also reported to be used in one particular case where the glare was said to drive langurs away from crops. Stones and dogs are known to cause more physical damage to the langurs but and are also the most efficient. Dogs were once witnessed to chase langurs off the field and up the tree, holding them captive on the tree for more than two hours until help arrived.

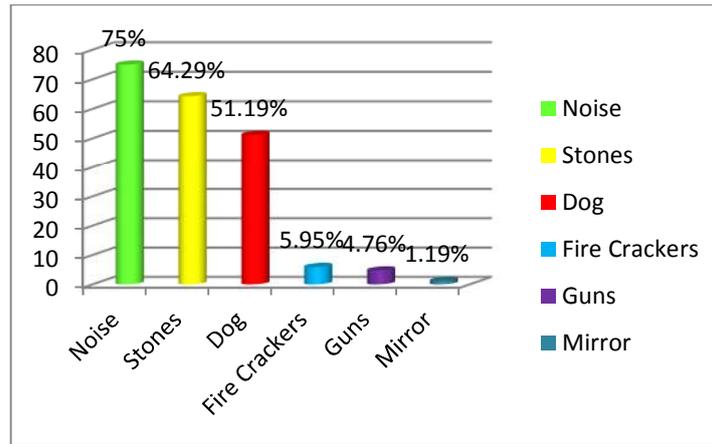


Figure 2 Crop raiding strategies practiced

*Conservation Education and Outreach:* An illustrative poster of the Himalayan Grey Langur with a short write up of its distribution and conservation threats was published (See APPENDIX III: Himalayan Threatened Primate poster'). The poster will be distributed to the schools participating in education program and to the stakeholders including the forest department and the concerned communities.

### Achievements and Impacts

#### *Taxonomy:*

The unique characteristics of the Himalayan Grey Langur, *Semnopithecus ajax*, distinguishes the species from its congeners, *Semnopithecus hector* and *Semnopithecus schistaceus*. The lateral flowing silky white upper coat, tinged with yellowish brown hair starkly contrasts the tightly wound dark grayish coat of *Semnopithecus schistaceus* and of the pale coated, low altitude *Semnopithecus hector*, re-establishing Pocock's (1928) description and attesting its endemism as argued by Groves(2001) . This understanding of the specific identity of *Semnopithecus ajax* opens venues for more species specific research in the region and paves way for species specific conservation. Understanding the taxonomy is indispensable to establishing distribution data, conservation threats and human-primate relationship. By resolving the taxonomy of Himalayan Langurs, the project has authenticated the baseline information collected as relevant to *Semnopithecus ajax*, thus laying the foundation for species specific conservation in Chamba (Mace, 2004).

#### *Langur Distribution:*

Langur presence was confirmed through direct sighting in 39 sites and through indirect sighting in 85 sites adding up to a total of 124 sites. This authentic data is the first ever distribution information on *Semnopithecus ajax* in its type locality. The information will aid in scaling up programs to study the ecology, biology, behavior, habitat modeling, and human-langur relationship studies. It would help stakeholders such as the State Forest Department in assessing the environmental impact of developmental projects and to act accordingly. This is very first step in establishing holistic conservation in the region and the project has realized the first objective proposed.

### *Conflict Zone Mapping:*

Human-langur relationship dynamics were assessed through community interviews. 76 of the 104 interviewed sites have reported conflict with humans due to crop raiding. Conflict, in this context, is understood as pertinent to crop raiding activity of the langurs; other factors that might be contributing to the negative attitude needs further comprehensive research. Crop raiding though appears to be the prime factor provoking such unhelpful attitudes. Twenty eight sites reported no conflict with langurs either due to absence of crop raiding or due to infrequent or insignificant damage during events of crop raiding.

A majority of the community expressed 'positive' and 'highly positive' attitude and tolerance to crop-raiding. This could be due to insignificant damage due to crop raiding or due to religious sensibilities they hold after the Langur, adoring it as the Hindu god Hanuman. Only two villages of the 104 interviewed reported zero crop raiding explaining that the langurs stay in the forest surrounding the jungle or in the vicinity of the village and never come into the agricultural fields located inside village. The two villages that reported crop raiding are very small, closely knit villages with their agricultural fields located close to their accommodation. Fear of humans or low probability of escape could keep these langurs from the fields. Another explanation for this phenomenon could be that the forests surrounding these particular villages are quite dense and relatively healthy, offering them the required diet to survive.

*Crop raiding deterrents:* Noise, stones and dogs are the commonly practiced raiding deterrent strategy (See Appendix III: Picture 1). In one exceptional case, hand held mirrors were reported to be used to scare langurs. The mirrors reflect sun light and the glare of the reflection is said to scare langurs away. More research is necessary to understand the effectiveness of these strategies. Guns were also reported in a very few villages (Deolah-Holi, Bharmour, Chamba) but the interviewee did not reveal any further details fearing legal persecution. Firecrackers were reported to have been used either alone or in combination with other strategies-but this is likely only in cases where the crop raiding persevered for long hours allowing enough time for the farmer to reach the field and engage in raiding deterring action. Most of these strategies are either used on their own or in combination with other strategies.

### *Conservation Education and Outreach:*

The team is working closely with animator, Karla Ramirez from Peru and Illustrator Brenda de Groot from Netherland, both volunteering for the project, to produce an education animation program. The animation will then be uploaded onto public video holding sites and shared with groups across the country and the world. The idea is to build the foundation for a long term education program in Chamba that will work to foster an eco sensitive and ecologically responsible behavior and in crafting citizenry who are well informed of the biodiversity of their region and who are empowered in its conservation. It will also work to bring a sense of pride of their biodiversity and thus engender a sustainable environment for humans and langurs/other wildlife. The team successfully completed the ground work for this objective and will soon implement the program in December, 2013 A poster on the Himalayan Langur and its significance was published and distributed as part of Zoo Outreach Organization's Education Packet to be used in Wildlife Week Celebrations (See Appendix III: Picture 2).

### *Stakeholder Building:*

Stakeholder partnership is central to the project as it aims to build holistic, community-inclusive conservation in Chamba. Community interviews helped interaction with community heads who have dealt in their verbal assurance of participation and cooperation to community conservation initiative in future. A local teacher has agreed to oversee the conservation education program and has also shown interest to bring in other interested teachers and educators to implement and manage a long term education program on Himalayan Grey Langur in Chamba. Three school heads and a Municipality head have shown interest in program. The local Forest Officials have also show keen interest in the project and have shown enthusiastic participation through the first year of the project. They have agreed on providing more help in the future. A soon to arrive project Facebook page will take the mission of the project to the entire country and the rest of the world, and is hoped to bring in more supporters and participants. The team has enthusiastically engaged in stakeholder building right from the start of the project and is hopeful that the stakeholder group will grow and strengthen in the coming years (See Appendix III: Picture 3 Community Interviews)

### Section 3:

#### Conclusion (max 250 words)

The Himalayan Langur Project has pioneered conservation action for the little known and Endangered *Semnopithecus ajax* in Chamba, the type locality of the primate. The project has established the langur's distribution in 124 sites across Chamba, Himachal Pradesh. Conflict due to crop raiding was established in 76 sites and antagonism towards langurs due to crop damage was validated. Anecdotal information on conservation threats was also collected though not quantified. The project pioneered taxonomic studies in the region by resolving the langur taxonomy and reestablish the specificity and endemism of *Semnopithecus ajax*. Conservation Education programs are now scheduled with three schools in the region and efforts are underway for its implementation and evaluation. The project is collaborating with illustrators and animators to produce conservation education animation program for the langur and will be made available through free video hosting in Chamba and all across the country. Potential stakeholders have been identified and will be involved in future scaling up projects in the region. The purpose of the project is to establish baseline information: distribution, conservation threats and conservation status of *Semnopithecus ajax*, through baseline field studies and community surveys, to engender holistic conservation for the endemic and Endangered langur. By establishing information on langur distribution, resolving the taxonomy of Himalayan Langurs, validating the presence of human-langur conflict, and by identifying and involving potential stakeholders, the project has not only attained its proposed goals but has also set the stage for follow up studies in Chamba, that in due course would bring about a holistic conservation in Chamba.

#### Problems encountered and lessons learnt (max 500 words)

##### *Which project activities and outcomes went well and why?*

The project set to establish baseline information on distribution and conservation threats across the 4500 Sq.Km district of Chamba. This appeared daunting but the team successfully tackled the task

through proper prioritization, planning and strategizing. Sensitive areas (subject to weather and other factors) were given priority and surveyed when the environment was cordial for action. The team was stationed in the field site all through the project year to save time and finances. Stakeholder participation building and Education program component of the project was also a success with identified stakeholders showing willingness to participate and schools showing interest in the program.

*Please detail any problems that the project encountered or deviations from original project plans.*

*Describe how these problems were addressed and what solutions were found to deal with these issues*

1. Terrain: the terrain was unpredictable in most of the survey sites and villages were located at inaccessible altitudes. The team learned from experiences and tackled future situations by equipping themselves at all time with required gears.
2. Weather: Unforeseen weather made terrains inaccessible for most part of the year. Accurate weather forecast and contacts at the field site helped the team with valuable information to alter plans and avoid wasting time.
3. Deviation from objectives: Habitat assessment and threats could not be quantified due to unavailability of time and resources. Baseline information on the forests surrounding the communities, such as forest cover, predominant tree species, and dependency of community on forest resources were collected.

*Briefly assess the specific project methodologies and conservation tools used.*

Distribution: To establish the distribution of *Semnopithecus ajax*, point localities of langur presence was marked using handheld GPS device. This methodology is a replication of the one followed by Geissman et al (2010) and was found fit in the context of the research where langur sightings are based on chance and where the terrains are unconducive for any other kind of survey technique.

Questionnaire Surveys: Questionnaire used is a mix of open ended and closed ended questions. administered in Chambyali and translated into English. Questions were carefully designed not to lead.

Taxonomy: The taxonomic study of Himalayan Langurs was done using available tools and data. Scat samples for DNA analyses will complement the morphological study discussed earlier in the report to produce a holistic taxonomic resolution (Lipscomb *et al*, 2003).

Conservation Education: The conservation education program planned is introductory and therefore will focus on the general issues of conservation, with a focus on the Himalayan Grey Langur. This will be followed up with more expansive education program during the scaling up projects (Jacobson, 2006).

Please state important lessons which have been learnt through the course of the project and provide recommendations for future enhancement or modification to the project activities and outcomes.

Local capacity building: The local helpers in future need to be incorporated into the team, as many seemed interested in the work done, and be trained in the nuances of conservation to aid in building a community inclusive conservation.

Team Expansion: The present team is small for the scale of the project undertaken and planned. Future project proposed should involve more researchers to make this task less difficult.

Issue based conservation: Future projects by the team need to be centered on one focal conservation issue simply because the terrain and the other conditions in Chamba might not allow

Proactive conservation: future projects need to work simultaneous on proactive conservation i.e. issue deterring rather than issue resolving.

In the future (max 200 words)

The project has established a base camp in Chamba, Himachal Pradesh with necessary logistics and required facilities to host researchers. Over the past year the project reached out to interested researchers and wildlife enthusiasts, inviting them for a visit and involving them in the surveys. Himalayan Langur Internship Program trained interns from across the country on the nuances of classification, taxonomy, field surveys, field life, and primate conservation. Based on the information collected during this first phase of the project, a scaling up initiative on conflict mitigation has been proposed and funds requested from UNDP's Small Grants Program and National Geographic's Young Explorer Award. Conservation Leadership Program's Follow up Award has also been approached for the same. With the identification of potential stakeholders, the project will endeavor to build an active Stakeholder network equip them with necessary information and thus establish a conservation monitoring system in Chamba. The project is also looking to expand the team bringing more interested conservationists and expanding the research on to other aspects of conservation. Collaborations are now underway with conservation experts from around the world to design cutting-edge site specific conservation program for the langur.

#### Section 4:

##### Appendices

Please include important additional information not required in the main text along with:

Appendix I: *Semnopithecus ajax* Distribution and Conflict Zones in Excel

Appendix II: Picture 1- Dogs as crop raiding deterrents: dogs chasing langurs off the field.

Appendix II: Picture 2- Himalayan Langur Poster in Wildlife Week Celebration at Mangalore, India.

Appendix III: Picture 3: Involving communities in field surveys.

Appendix III: Himalayan Grey Langur Poster

Appendix IV: Financial Report Summary

Appendix V: Community Survey Data Sheet.

Appendix VI: Article on CLP Training Published in Zoos Print Magazine

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Other Web links:

1. Zoo Outreach Organization/Wildlife Information Liaison Development- Project Page:  
[http://www.zooreach.org/ZOO\\_WILD\\_Activities/2012/6Apr2012\\_Semnopithecus\\_ajax\\_HP.htm](http://www.zooreach.org/ZOO_WILD_Activities/2012/6Apr2012_Semnopithecus_ajax_HP.htm) for regular project updates.
2. Journal of Threatened Taxa <http://www.threatenedtaxa.org/>
3. Zoos Print Magazine <http://www.zoosprint.org/showMagazine.asp>
4. John Bishops Photography of Nepal Himalayan Langurs.  
<http://www.johnbishophphoto.com/Langur/Langur1/index.html>

Distribution list

The Annual Project Activities Report can be accessed from [www.zooreach.org](http://www.zooreach.org) in PDF format

The complete Himalayan Langur Project report is available with the Project Leader, Martina Anandam, by request through email at [martina@zooreach.org](mailto:martina@zooreach.org) or [zooreach@zooreach.org](mailto:zooreach@zooreach.org).

The report will be distributed to all stakeholders: Himachal Pradesh Forest Department, Shimla; Chamba Forest Circle, Chamba; Arpana Research and Charities Trust, Consultants and Advisors, and Conservation Education Participating Schools.

Manuscripts under work:

Scientific Publications are underway on Himalayan Langur Taxonomy, Distribution and Conflict Mitigation.

*Semnopithecus ajax*: Mother and Infant with an aunt langur at Gajnoi, Chamba.

