

Participation of local villagers in conservation of Indian Gazelle or Chinkara (*Gazella bennettii*) in Thar Desert of Rajasthan, India.



Project Technical Report

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Last but not least, I would like to thank all the participants, especially the local villagers for their involvement and understanding in making this conservation program a success with meaningful out comes. I wish them luck with their future endeavors.

Summary

Indian Gazelle or Chinkara, an antelope mainly found in the Indian Subcontinent, is now facing global population decline. Thar Desert of Rajasthan is having a largest stronghold of its population, and that is mainly distributed around the villages of religious community like Bishnoi, Jat, Rajpurohit, Jain etc. This animal prefers to live in arid to semi arid habitat, and can withstand without drinking water for more than 2-3 weeks. It is a browser and mainly thrives on the scrub vegetation and can maintain water balance through metabolic process. The main dominated vegetation in its natural habitat is *Crotalaria-Ziziphus-Capparis* type. It changes its food choice time to time and fed on variety of plants like, *Calotropis procera*, *Calligonum polygonoides*, *Acacia senegal*, *Prosopis cineraria*, *Acacia jacquemontii*, *Tecomella undulata*, *Salvadora oleoides* and *Ziziphus nummularia*.

Due to excessive hunting and degradation of natural habitat, the population of Indian gazelle has declined to a great extent. The foraging grounds of Indian gazelle are wasteland and scrubland but presently these areas are being destroyed due to increase of agricultural and other anthropogenic activities. As a result the Chinkara population is restricted to only those areas where they are protected religiously or by any other means.

During the project duration, data were also collected from the local media reports regarding the poaching and killing of Chinkara from the project area. In total, 98 Chinkaras were poached and more than 300 were killed by the feral dogs and 90 were died in Jodhpur region in the flash flood in recent monsoon June 2007. Since this animal is legally protected in the world level and poaching is totally banned, but enforcement of strict law is lacking in this part of country. Local forest department is not well equipped to combat with the poachers. More or less, the conservation and protection is totally dependent on the locals and this needs better understanding about the animal and its current status.

The present project was initiated with the support of Rufford Small Grant Program, UK, with the objective to know the present status of this species and conservation of its habitat through community participation. Beside this, various threats to study animal were listed and support was also received from local Forest Department. An awareness program initiated and aimed at local people/communities such as Bishnoi, Jat, Meghwal, Rajput and some tribes, to educate them towards conservation. During this, we held group discussion with community people toward conservation and received overwhelming support.

Introduction

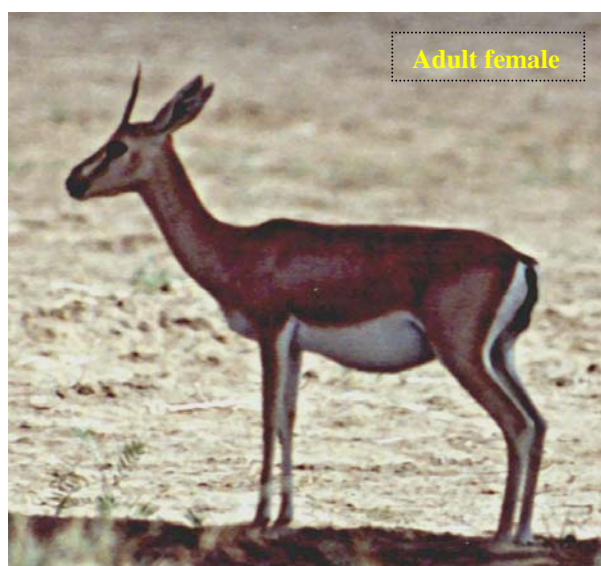
Conservation is 'the maintenance of essential ecological processes and life-support systems, the preservation of genetic diversity, and the sustainable utilization of species and ecosystems' (Talbot, 1980). Conservation through the involvement of local communities, found an effective measure to makes everyone as a responsible part of ecosystem. Generally all the conservation efforts are done to save charismatic and large animals. Thus this is the first ever effort for the conservation of Indian gazelle through community participation.

The Indian gazelle is a small, slender gracefully built animal. This was once abundant and distributed widely, even in remote corners of the Thar Desert (Prakash, 1988). It is

found in variety of habitats from plains to sandy areas in the scrub desert. A fully grown male measures about 26 inches (65 cm) at the shoulder and weighs around 23 kg, and the average horn length varies between 10 to 12 inches (25- 30 cm). The male has 'S' shaped backwardly curved ringed horns, but the female has straight horns usually small, 4 to 5 inches (10-13 cm) long and without rings. These



characteristics show clear sexual dimorphism (Prater, 1971), and helps to distinguish them from a far distance. The dorsal body parts are of light chestnut colour and gradually turn into deep chestnut as it meet bright white color at under parts on the flanks and buttocks. A white streak down each side of the face and a dusky patch above the nose is a major characteristic feature of all the gazelles. The fawns do not show any marked sexual dimorphism, but at the age of three months



and above, emergence of horns begins and after 4^{1/2} months sexes can be easily

differentiated by the shape and thickness of horns. All antelopes have a gland below their eyes. Externally this gland appears like a vertical hairless slit. The secretion of this gland is used for territory marking by territorial males. Some other glands are also present below horns, between hooves and marginal area of lips, which are used in scent marking or communication (Jakher and Dookia, 2000). It is very swift and active, not particularly wary but when alarmed it stamps its forefoot and sneeze-like alarm hisses through the nose, which gave its local name Chinkara "*The sneezer*". Sometimes also stamps the ground with its foreleg, to communicate with the other herd members. Chinkara is well adapted for dry conditions and can withstand long intervals between visits to water points.

The word gazelle is taken from Arabian language meaning "Loveable". The genus *Gazella* is being represented by fourteen species throughout the world (Groves, 1985). Whereas in India *Gazella bennettii* is the single species which found from drier part of western Rajasthan to Bihar in eastern side, Panjab-Haryana in the northern side and upto Krishna river in the south. Chinkara is found in the whole of Rajasthan but quite abundant in the sandy, dry areas of the Thar Desert (Rahmani & Sankaran, 1991). Maximum population (about 85% of the global population) of Chinkara has been reported in the southwestern parts and minimum in the northeastern parts of Rajasthan (Rahmani, 1997; Kankane, 2000). Chinkara is considered to be a sacred animal and are protected by the Bishnoi community which justified their abundance near the villages of Bishnoi community (Prakash, 1977 and Rahmani and Sankaran, 1991; Goyal et al., 1986; Goyal and Bohra, 1983).

Once distributed widely across the Thar, this was the favourite game animal in this region and hunted enormously by Royal families. Over the years its population get declined and it got listed as near to endangered animal in the IUCN Red Data Book and Schedule I species of the Wildlife (Protection) Act, 1972, as near to endangered animal and providing them legal protection with prohibition on hunting.

Due to excessive hunting and degradation of natural habitat, the population of Indian gazelle has declined to a great extent. The foraging grounds of Indian gazelle are waste scrubland but presently these areas are being destroyed due to increase of agricultural and other anthropogenic activities. As a result the Chinkara population is

Public Participation for the conservation of Chinkara in Thar Desert of Rajasthan

restricted to only those areas where they are protected religiously or by any other means.

Project Objectives

1. Systematic survey in each and every part of desert where Chinkara present.
2. Simultaneously suitable habitat availability will also be documented and parameters note down.
3. Creation of a network of students, researchers and field biologist for conservation awareness.
4. Local workshops organised in the area for disseminate the message in community as well as in scientific field.
5. Community involvement in the Chinkara conservation.

Approach to achieve the objectives

- Survey the various localities, where Chinkara presence was reported, by regular visit with help of field assistants and volunteers.
- During survey best habitat of the Chinkara was recorded besides the threats noted.
- Questionnaire survey was also done during the survey in different villages.
- Contact the village heads and enthusiastic people and form four groups of volunteers.
- Interaction with the Forest Departments.
- Educational material prepared in the local languages and distributed among the local community.
- Contact schools and colleges for conservation education.

Project Site Locations

Rajasthan is situated in the northwestern part of India and lies between 23°30'N and 30°11'N latitude and 69°29'E and 78°17' E longitude, occupying an area of 3,42,239 sq. km. The Aravalli range roughly divides Rajasthan diagonally into two physiological zones, namely the Thar Desert in the west and semi-arid to sub-humid eastern and

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southeastern Rajasthan. Sixty per cent of the Thar Desert is located in northwestern part of Rajasthan.

A brief survey was undertaken in the good Chinkara distribution area and habitat as well in six districts namely, Jodhpur, Nagaur, Bikaner, Jaisalmer, Barmer and Pali. These districts are having nearly 70% of the Chinkara population (Dookia, 2002), so the follow up surveys and the community conservation program were targeted for the locals of the respective districts. Each district headquarters and probable areas of Chinkara locality were visited to contact forest officials and to make inquiries about the present occurrence of Chinkara. In addition, response from knowledgeable villagers, shepherds, old shikaris (hunters) and NGOs was also obtained to have a preliminary knowledge about the presence and population trend of the Chinkara.

Present Status of Indian Gazelle/Chinkara in Thar Desert of Rajasthan, India

This is the common antelope which found in the vicinity of settlements of ethical communities. During the preset project, distribution, population trend and sex ratio of Chinkara were estimated. The Chinkara is usually seen in small herds comprising not more than 7 or 8 individuals. The expelled bucks are often found in separate herds. Apart from this, single individuals are also a common occurrence. The Chinkara, though seen roaming and feeding during daytime in the cultivated fields and generally prefers leaves of *Crotalaria burbia*, *Zizipus nummularia* and flowers of *Tecomella undulata* in post-monsoon and winter seasons but during summer *Elusine compressa*, *Maytenus emarginata*, *Zizipus nummularia*, *Prosopis cineraria* and *Heliotropium* spp. appear to be the most preferred food. They are maintaining the water balance from the moisture laden plants and tender parts. This ensures reasonably large contribution to their overall water balance, which supports their presence in the remote desert parts.

During the project duration, data were also collected from the local media reports regarding the poaching and killing of Chinkara from the project area. In total, 98 Chinkaras' were poached and more then 300 were killed by the feral dogs and 90 were died in Jodhpur region in the flash flood in the monsoon of June 2007. Since this animal is legally protected and

poaching is totally banned, but enforcement of strict law is lacking in this part of country. Local Forest Department is not well equipped to combat with the poachers. More or less, the conservation and protection is totally dependent on the locals and this needs and better understanding about the animal and its current status.

Methodology

The proposed project was for a period of one year duration. The six months were spent for general survey of Chinkara and its habitat. Later on, voluntary groups were created and four weeks orientation programme was organized for them. The rest five months were spent for publicity material preparation and campaigning for Chinkara conservation in Thar Desert of Rajasthan, which includes awareness programmes, workshops in different villages and approach to children at school level.

Field Survey

For initiating actual conservation approach in the Desert part of Rajasthan, we have started a general survey of the area for present status of Chinkara. Systematic survey of Chinkara was conducted in the six districts covering different habitat and vegetation types. The survey was conducted from mid May 2006 to November 2006. We have selected different localities for further follow ups for the long term monitoring of the Chinkara populations. Approximately 5000 km road survey was done to get the encounter rate of Chinkara in all type of road, including state highways, village connecting roads, fair weather roads and cart roads. A distribution map was prepared to know the current status of Chinkara in Desert part of Rajasthan (Annexure-I). Simultaneously more than 400 km was walked on foot by the team members and volunteers for continuous monitoring of selected Chinkara populations at 10 localities. Two local resource persons and 8 volunteers were selected for assisting us during field survey in these 10 locations. Villagers were involved in the discussion groups and community people groups were prepared for long term monitoring of these respective sites, even after the project tenure. During the survey, we have collected information on the distribution of Chinkara in these localities, sex ratio and its favorite habitat attributes. Photographs of habitat and Chinkara and video clippings were done for photo documentation and preparation of posters and educational materials on conservation aspects. During the field

Public Participation for the conservation of Chinkara in Thar Desert of Rajasthan

work, villagers were interacted about the distribution and Chinkara preferred habitat for future conservation programmes.

Awareness Materials

For awareness generation among the local community, simple brochures, T-shirt and banners on Chinkara conservation in local language (Hindi) and English were prepared (Annexure-II).

Community Participation and Conservation Awareness

Conservation of any wild animal in human dominated landscape is directly depended on the involvement of locals, at every stage of protection. For achieving this target, we approached to village level community groups and long discussions were held to involve them in this program. Village heads came forward, as the Chinkara is also the mascot of Bishnoi sect. We also involved non-Bishnoi communities, as the distribution of Chinkara is also found in other than Bishnoi areas. During our project, we gave responsibility to each and every locals and one of them was our main Volunteer, who was later involved in the continuous monitoring. These volunteers were selected from different villages irrespective of caste, creed and educational background. The age group of these volunteers varied between 20-40 years. Volunteers were trained about importance of Chinkara and its role in the environment as well as religious aspects before we begun actual campaign. Subsequently, several smaller workshops were conducted which includes slide shows and poster exhibitions at different villages and in local schools (Annexure-III).

Recommendations

Based on the experiences gained while executing this project, following recommendations are given for the conservation of Chinkara in the Thar Desert of Rajasthan, India:

1. Current distribution of Chinkara in the study area is patchy with certain cluster of its populations in study area. The 70% of the total population in this area is found in juncture of Jodhpur-Nagaur-Bikaner district boundaries and facing serious threat of poaching and road accidents. Though the species is legally protected law has not yet been enforced well in this area and needs to be taken care at this point of time to save dwindling population of Chinkara. Beside the enforcement of law we recommend that a undercover information network should be built with the help to locals to tip the poaching to forest department at local/village level. To minimize road kills banner depicting conservation slogan should be placed roadside.
2. During this survey we selected ten localities in the revenue as well as village community lands, with the best habitat and population of Chinkara. These areas should be mutually monitored by the village volunteers and head of the village. As the local Forest Department is not proactive regarding the poaching incidents, these volunteers can come forward with the information, and this may help to stop poaching.
3. The villages in these districts need successive conservation awareness campaign and identification of more volunteers for conservation of Chinkara abundant areas.
4. The Rajasthan Forest Department should also help into the conservation initiatives and some areas may be developed either 'Conservation Reserve' or 'Community Reserve' (new Protected Area category in Wildlife (Protection) Act, 1972 amended in 2006), with more enforcement of Indian Wildlife (Protection) Act, 1972. Some areas may also develop as an interpretation centre so as to spread further awareness among the locals.
5. The protection measure taken by locals should be appreciated at the higher level and some sort of prize can be given to motivate them.

Future Plans

In next phase of the project the following work will be taken up, if further sponsorship is provided by the funding agency.

1. A network of volunteer from each of the villages where Chinkara is found; will be created to combat any unforeseen situation, including poaching and road kills. This network will work together with the local Forest Department to give them help in reducing the poaching.
2. Habitat rehabilitation programme will be conducted in these areas, for this we have already selected area where we can establish as Community reserve with the interpretation center in it.
3. More such awareness campaigning program will be run in these districts and we will try to extend this program with the help of volunteers.
4. A detailed project has been submitted to the Forest Department of the state for establishment of a conservation reserve or community reserve according to the Indian Wildlife (Protection) Act, 1972.
5. In near future, two mobile veterinary hospitals will be established to give instant help to the injured animals, other wise, when these injured animals taken to the city hospital, due to trauma, 90% get dead.

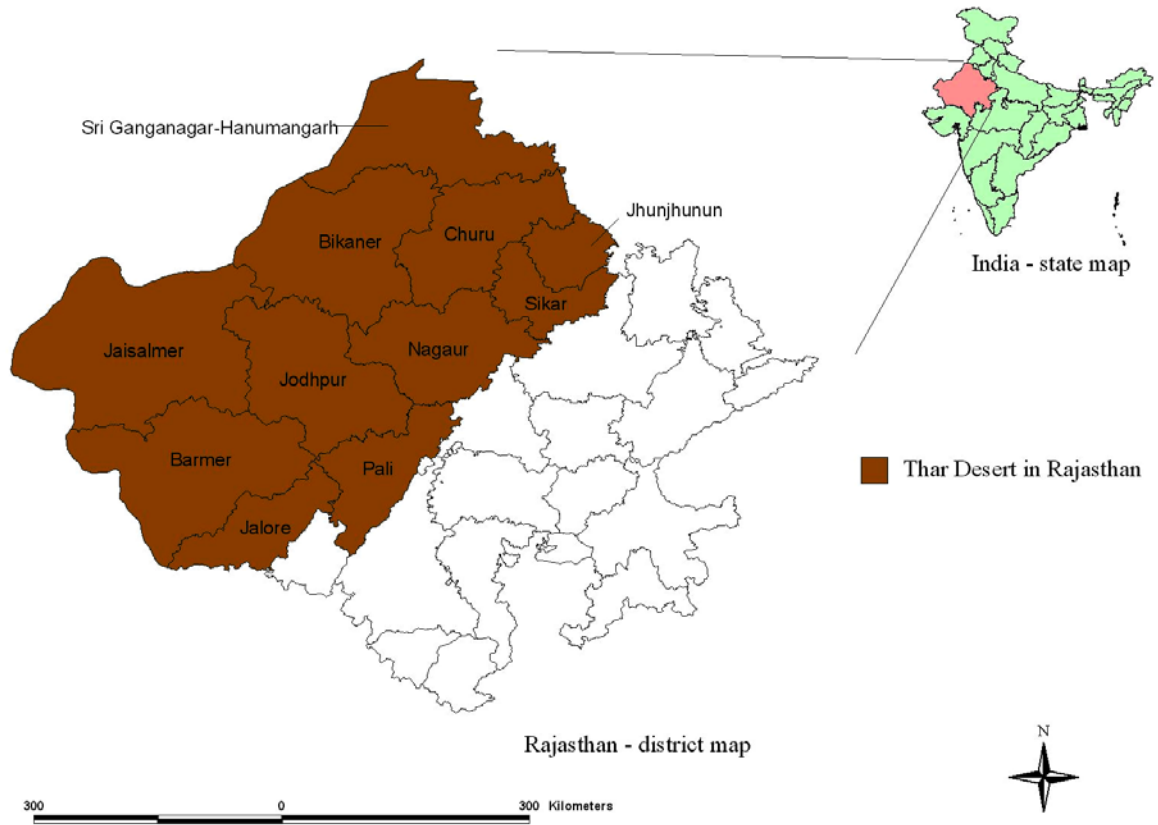
Project Team

1. Dr. Sumit Dookia : Principal Investigator and Team Coordinator
2. Dr. Himmat Singh : Campaign Manager
3. Mr. Laxman S. Rajpurohit : Campaign Coordinator
4. Mr. Jeeva R. Tak : Survey Manager
5. Mr. Chandan S. Rathore : Area Coordinator (Shergarh-Phalodi area, Jodhpur)
6. Sh. Deva Ram Bishnoi : Field Coordinator (Guda Bishnoian Area, Jodhpur)
7. Sh. Girdhari Ram Choudanry : Field Coordinator (Bhopalgarh Area, Jodhpur)
8. Sh. Mukesh Bishnoi : Volunteer (Gogelao area, Nagaur)
8. Sh. Gopal Bishnoi : Volunteer (Nokha-Mukam area, Bikaner)
9. Sh. Madan Bishnoi : Volunteer (Dhawa-Doli area, Barmer)
10. Sh. Birbal Ram Bishnoi : Volunteer (Pali area)
11. Sh. Hukam Singh Bhati : Volunteer (Jaisalmer area)
12. Sh. Madho Ram Devashi : Driver cum Campaign organizer

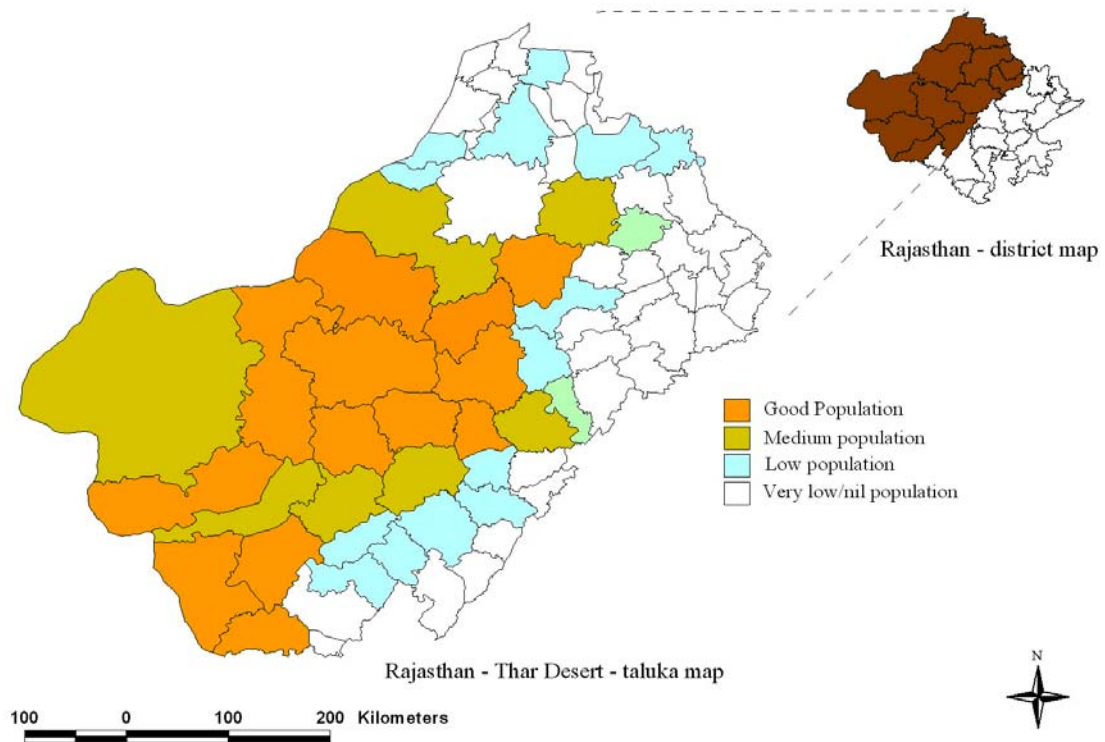
There were 10 more site specific volunteers, whose name has not given in the list.

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Thar Desert of Rajasthan, India



Distribution of Chinkara in Talukas' of Rajasthan, India.

थार मरुआवास में चिंकारा का संरक्षण : एक सामुदायिक प्रयास

सामाजिक जीवन

यह एक सामाजिक प्राणी है और दो प्रकार के परिवार/समूह में रहते हैं। मिश्रित समूह और नर समूह। मिश्रित समूह में वयस्क नर, वयस्क एवं अवयस्क मादा एवं छोटे नर एवं मादा बच्चे रहते हैं। वहीं नर समूह में सभी सदस्य अलग-अलग उम्र के होते हैं। कभी-कभी अकेले नर भी देखे जा सकते हैं। परन्तु यह अवस्था थोड़े समय की होती है और ये अधिकतर वयस्क नर ही होते हैं। इनके समूह छोटे-छोटे होते हैं और सामान्यतया 7-8 सदस्यों के समूह देखे गये हैं। सदस्यों की संख्या मौसम के अनुसार बदलती भी रहती है। सर्दी के मौसम में अधिक एवं गर्मी में कम सदस्य दिखाई देते हैं। इसका एक कारण सर्दी में भोजन की अधिक उपलब्धता भी है।



इनमें वर्षभर प्रजनन होता है, परन्तु वर्ष के फरवरी-मार्च एवं जुलाई-अगस्त महीनों में अधिक बच्चे पैदा होते हैं।



समूह के अर्धवयस्क सदस्यों का अधिकतर समय समूह की चौकसी करने में बीतता है, वहीं टैरिटरियल नर प्रजनन काल में अपना ज्यादातर समय इलाके के सीमांकन में गुजारता है। इसी समय नरों की आपसी मुठभेड़ होना सामान्य बात होती है।

प्रजनन के लिए तैयार मादा को लेकर आपसी मुठभेड़ ज्यादा देखी गयी है। प्रजनन समय अगस्त से अक्टूबर एवं फरवरी से अप्रैल होता है और लगभग साढ़े पांच से छः माह की गर्भावस्था होती है।

गांवों एवं खेतों में होने से ये फसलों को भी नुकसान पहुंचाते हैं। सर्वाधिक नुकसान ग्वार की फसल को पहुंचाते हैं। बिश्नोई सम्प्रदाय के

लोग इनसे होने वाले नुकसान को फसल हानि न समझकर इनका हक समझते हैं एवं इन्हें कोई नुकसान नहीं पहुंचाते हैं।

प्राकृतिक शत्रु भेड़िये एवं सियार की कम संख्या होने से आवारा कुत्ते इनको सर्वाधिक मारते हैं। वहीं लगातार हो रहे शिकार को भी नजरअंदाज नहीं किया जा सकता है। इंदिरा गांधी नहर के आगमन से, इसके वितरण का अधिकतर इलाका आज व्यावसायिक खेती ने ले लिया है।

अनवरत शिकार, वास स्थान का सिकुड़ना, व्यावसायिक खेती इत्यादि कारणों से आज इनकी संख्या में लगातार गिरावट दर्ज की जा रही है।

हमें आज इस सुन्दर प्राणी को बचाने हेतु एकजुट होना है और इनके संरक्षण पर ध्यान देना होगा। इनकी संख्या लगातार घट रही है और इनके संरक्षण की महती आवश्यकता है। इनके संरक्षण में सबसे बड़ी समस्या है, इनका लगातार हो रहा शिकार है।

इनका संरक्षण करना हमारा कर्तव्य है, सम्मिलित जन सहयोग प्राप्त हो तो इस संकटग्रस्त प्राणी को बचाया जा सकता है।

आप सभी से यह अपील है कि जब भी कोई शिकारी इन्हें मारता है, तो सभी लोगों को सम्मिलित रूप में सामने आकर इसका विरोध करना चाहिए। शिकार की सूचना जल्द से जल्द निकटवर्ती पुलिस स्टेशन, वन अधिकारी इत्यादि को देनी चाहिए। प्रत्येक वन्यजीव को बचाना न केवल हमारा कर्तव्य है अपितु मानव धर्म का अनिवार्य हिस्सा है। आपके सहयोग से ही हम इसे बचा सकते हैं।

सम्पर्क करें :-

डॉ. सुमित डूकिया

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आपका सहयोग, हमारा प्रयत्न

बचा पायेगा मरु-आवास !

Your support, our attempt

Will save the desert habitat

थार मरुआवास में चिंकारा का संरक्षण : एक सामुदायिक प्रयास



Concept & Developed by
Dr. Sumit Dookia

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थार मरुआवास में चिंकारा का संरक्षण : एक सामुदायिक प्रयास

आज बढ़ती आबादी और वनों के अनवरत विनाश से वन्यजीवों की संख्या में अत्यन्त गिरावट देखी जा रही है। राजस्थान के थार मरुस्थल में कई वन्यजीव प्रजातियां संकटग्रस्त हो गई हैं। अपने अस्तित्व को बचाने के लिए ये वन्यजीव आज हमारे प्रयासों पर निर्भर हो गए हैं। इन्हीं वन्यजीवों में से एक है 'चिंकारा'। यह राजस्थान का राज्य पशु भी है। अंधाधुंध शिकार और वास स्थान की हो रही कमी से इनकी संख्या में गिरावट आई है। आज इनकी संख्या में गिरावट को देखते हुए भारत सरकार ने इनका कानूनन संरक्षण करने हेतु भारतीय वन्यजीव संरक्षण अधिनियम (1972) के प्रभाग (Schedule)-I में रखा है। वहीं अंतर्राष्ट्रीय संस्था IUCN ने इनको Lower Risk-Conservation Dependent Category में रखकर इनके संरक्षण पर जोर दिया है।

भारतीय थार मरुस्थल – एक नजर में

क्षेत्रफल	फैलाव क्षेत्र	2,78,330 वर्ग किमी.
	राजस्थान	1,96,150 वर्ग किमी.
	गुजरात	62,180 वर्ग किमी.
	हरियाणा एवं पंजाब	क्रमशः 11,000 एवं 9,000 वर्ग किमी.
वातावरण	तापमान	उच्चतम 49°C तक (गर्मी में) न्यूनतम 0 से 20°C तक (सर्दियों में)
	वर्षा	75 मि.मी. से 400 मि.मी.
	हवा का बहाव	औसतन 30 से 40 किमी. प्रति घण्टा
	समुद्र तल से ऊंचाई	350-450 मीटर

ये छोटे आकार के जन्तु, एन्टीलोप परिवार के सदस्य होते हैं। अज्ञानता व शिकारी कमी-कमी इनको हम हरिण मान लेते हैं परन्तु ये हरिण न होकर एन्टीलोप समूह के प्राणी है। राजस्थान के अन्य एन्टीलोप कृष्ण मृग (Black buck), नीलगाय/रोजड़ा एवं चौसिंगा हैं। चिंकारा का दूसरा नाम गैजल और वैज्ञानिक नाम गजैला बेनेटी है।

चिंकारा बहुत फुर्तीले, चौकन्ने और हमेशा अपनी पूंछ को हिलाते रहते हैं। खर का अहसास होने पर अपने अगले पाँवों को धरातल पर पीटते हैं और अपने नाक द्वारा जोर से हवा निकालकर आवाज करते हैं इसी

कारण इनका सामान्य नाम 'चिंकारा' रखा गया है। गैजल शब्द अरबी भाषा से लिया गया है और इसका अर्थ होता है 'प्रिय' (lovable).

वितरण

गजैला वंश (genus) की विश्वभर में लगभग 14 जातियां पाई जाती हैं वहीं भारत में यह अपने वंश का एकमात्र सदस्य है। इसकी कुल चार उपजातियां होती हैं, जो भारत में उत्तर पश्चिम के धरातल एवं छोटी पहाड़ी वाले इलाके से मध्यभारत और दक्षिणी के पठार एवं कृष्णा नदी तक वितरित हैं।

सामान्यतया शुष्क क्षेत्रों में पाया जाने वाला यह प्राणी विश्व भर में वितरण की तुलना में राजस्थान के थार रेगिस्तान में यह सर्वाधिक संख्या में पाया जाता है।

इनके वितरण को देखने से यह ज्ञात होता है कि चिंकारा घने जंगल एवं आर्द्रता वाले भूभाग में नहीं पाया जाता है। रेतीले भूभाग से समुद्रतल तक तथा 1500 मीटर तक इनका वितरण देखा गया, परन्तु इनकी सर्वाधिक संख्या थार मरुस्थल में ही पायी जाती है।

पश्चिमी राजस्थान में चिंकारा को एक धार्मिक महत्व दिया गया है। बिश्नोई सम्प्रदाय के लोग इन्हें अपने धर्म में सम्माननीय मानते हैं और इन्हें किसी भी प्रकार का नुकसान पहुँचाना पाप समझते हैं, आज इसी वजह से इनकी संख्या बिश्नोई सम्प्रदाय बाहुल्य वाले गाँवों में ज्यादा है।

सामान्य लक्षण

यह अपने रेतीले भूरे रंग और सींग की वजह से दूर से ही पहचाने जा सकते हैं। नर एवं मादा में लिंग भेद 5-6 माह की आयु से ही कर सकते हैं। नर में सींग सीधे, छल्लेदार एवं ऊपरी सिरा हल्का से बाहर की ओर मुड़ा, खिंचे हुए 'S' की तरह होता है, वहीं



मादा में सींग पतले, छोटे, नुकीले एवं छल्ले न के बराबर होते हैं। एक पूर्ण वयस्क नर लगभग 26 इंच तक ऊंचा एवं अनुमानतः 23 किग्रा. और औसत सींग की लम्बाई 10-12 इंच तक होती है। मादा नर से कद में छोटी एवं वजन में कम होती है। मादा में सींग लगभग 4-5 इंच लम्बे एवं बिना छल्ले के होते हैं। इनके बच्चों में 3-4 माह के होने तक लिंग भेद किया जा सकता है।



वास स्थान

सामान्यतया ये खुले कटीली-झाड़ीदार शुष्क वनों में विचरण करने वाले प्राणी हैं। ये खुले बंजर मैदानों, छोटे पहाड़ी-पठारी भूभाग, रेतीले टीलों एवं खेतों में पाये जाते हैं।

ये दिनचर प्राणी हैं अर्थात् दिन के समय स्वच्छंद विचरण करते देखे जाते हैं। ये अपने भोजन में अपनी पसंद को प्राथमिकता देते हैं और ज्यादा आर्द्र एवं उच्च प्रोटीन वाले पोषक तत्वों वाले पौधों को खाते हैं। सर्दी की ऋतु में इनके भोजन में सीनियों, कैर, बेर, रोहिडे के फूल इत्यादि खाते हैं वहीं गर्मी के मौसम में कंकेड़ा, खेजडी, एवं कुछ घास की प्रजातियां ज्यादा पसंद करते हैं, चिंकारा बहुत ही कम पानी पीता है और पानी की पूर्ति यह अपनी चयनित भोजन प्रणाली से पूरी करता है। इसके भोज्य पौधों में 60 से 80% तक प्राकृतिक पानी की मात्रा पायी जाती है और यही पानी इनके आन्तरिक सन्तुलन को बनाये रखता है। इनके इसी प्रकार के अनुकूलन की ही बदौलत यह प्राणी जल स्रोतों से मीलों दूर भी पाया जाता है। वहीं इनकी दिनचर्या भी शारीरिक जल को बचाने में मददगार साबित होती है। भोर से सूर्य के तपने तक तथा फिर शाम में यह अपनी दिनचर्या को पूर्ण करता है। दिन में ये झाड़ियों की छांव में बैठे देखे जा सकते हैं।

अपनी तीक्ष्ण सूंघने की शक्ति, दृष्टि एवं श्रवण शक्ति से यह प्राणी हमेशा आने वाले खतरों का पूर्वानुमान लगा लेता है।

Sand dunes interspersed with xeric vegetation, One of the best habitats for Chinkara



Scrubland habitat is the most suitable habitat for Chinkaras' survival.



Crotalaria burbia, highly preferred plant by Chinkara for food. Fellow agricultural fields are required for survival of Chinkara.



Another best habitat located during the project time. *Prosopis cineraria* trees are the dominant tree species in the Chinkara habitat.



Along with *Prosopis cineraria* tree, *Ziziphus* sp. Shrubs also make considerable diet of Chinkara.



Lopping of *Prosopis cineraria* during winter months is a regular practice in the agriculture fields.



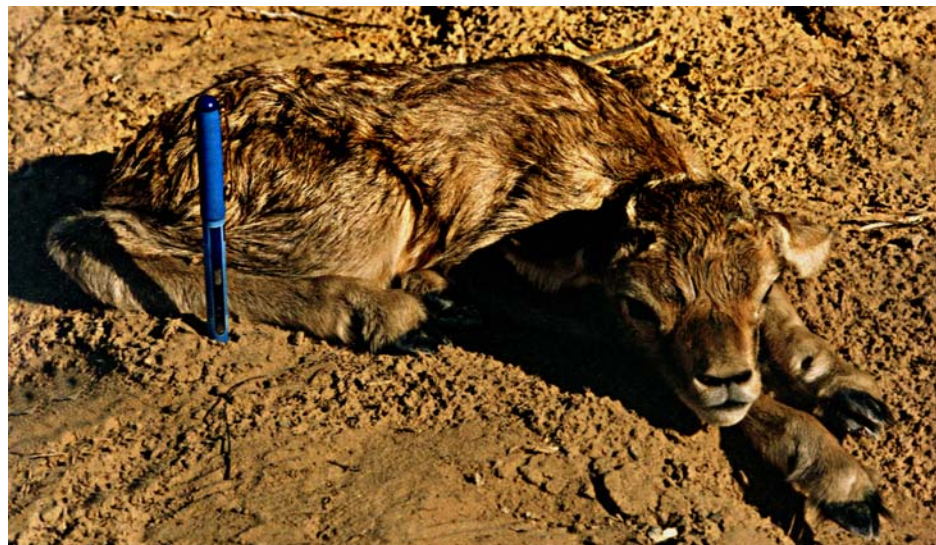
Sighting of Chinkara in *Crotalaria* dominated fields is quite common.



Sub-adult Chinkara in one of the habitat. *Prosopis-Crotalaria-Leptadimia* dominated habitat.



24 hr. old Chinkara fawn. Due to the perfect camouflage, sighting of fawn from far distance is quite impossible.



Principal Investigator cum Team leader Dr. Sumit Dookia (right side in photo), discussing with the community people about the conservation plan for Chinkara.



Dr. Sumit Dookia, along with Mr. Laxman S. Rajpurohit (campaign coordinator) and two other team members, discussing about the community meeting.



One of the Community meeting in the Bishnoi area, senior community leaders gave full support for the project.



Mr. Jeeva R. Tak, our survey manager, involved in the discussion with local shop owners, regarding the conservation campaign leaflet.



Each and every opportunity were utilized during the survey, Dr. Sumit Dookia and Mr. Laxman R. Rajpurohit are busy in discussion with truck drivers, to control road kills of Chinkara.



Village children are taking oath, for the conservation of Chinkara in their area in Jaisalmer area.



One of the religious monument, constructed in the memory of poached Chinkara, through the compound fine paid by poachers in the center of village in Jodhpur area. This animal was killed by the poachers and people buried the dead body of animal to worship this place.



Mr. Jeeva R. Tak, along with villagers at another Chinkara memorial place in Jodhpur. Local people are taking oath at this place in favour of our campaign. These types of places are showing the religious sentiments of communities toward the Chinkara and other wildlife.



The sign board depicting the message, that "Poaching of Chinkara is strictly banned", along with the religious *guru* of Bishnoi sect in Jodhpur.



Dr. Sumit Dookia, is giving campaign leaflet to the manager of *Bhadariya ji* temple in Jaisalmer district. This area is famous for conservation of wildlife.



Dr. Sumit Dookia, along with Mr. Chandan S. Rathore area coordinator (in camouflage cap) with other volunteers at *Bhadariya ji* temple rescue center. This orphan Chinkara fawn is reared and released in the wild after one year.



The survey team (R-L), Dr. Sumit Dookia, Sh. Madan Bishnoi, Sh. Deva Ram Bishnoi, Mr. Laxman R. Rajpurohit, Sh. Gopal Bishnoi and Mr. Jeeva R. Tak standing with Sh. Birbal Ram Bishnoi, in Jodhpur region.



Dr. Sumit Dookia, with the other team volunteers in Bhopalgarh area. This area is found suitable for long term monitoring of Chinkara habitat.



Village children enthusiastically showing campaign brochure in Bhopalgarh area in Jodhpur district.



Sh. Deva Ram Bishnoi (standing in right), in one of the school level campaign in Guda Bishnoian area of Jodhpur distt.



Total 30 schools were covered during the campaign, and received overwhelmed support from the children.



One of the survey camp site in Bhopalgarh area, along with the volunteers.



Mr. Chandan S. Rathore, with the community *guru* of Rajput community, during campaign time.



Chinkara is found in the complete harmony with the cattle, and drinking water in the peak summer season in Jaisalmer.



Chinkara browsing in the fellow land, along with the cattle, never get frightened even close encounter with the human, in Bishnoi areas.



Adult male Chinkara is picking grains with the locals birds. This shows their complete harmony with the locals.



Male Chinkara killed by feral dogs. Feral dogs are the main predator at various places.



Full grown male Chinkara killed on road, speedy vehicles are the main threat in Chinkara abundant areas.



Another road kill of male Chinkara, there is an urgent need to place sign boards in accident prone area.



Glimpse of media report on Chinkara poaching/killing in Thar Desert of Rajasthan, total 98 poaching incidents were occurred but maximum were not even got the attention of media. (Source: Rajasthan Patrika, Daily Hindi Newspaper and Local reports)

Thursday June 28 2007
दो चिंकारों को गोली मारी
 पंढितजी की दुर्गा (जाधपुर) कस्बे के डर इलाके में कर्तों को चिंकारों का शिकार करा दिया। पुलिस एवं व शिकारियों को धर रवाया। उनके पास से दो मृत चिंकारे बरामद हुए हैं।

Wednesday April 18 2007
हरिण शिकार के आरोप में तीन गिरफ्तार
पीपाइ सिटी पुलिस ने दो चिंकारों को गोली मारी। चिंकारों को गोली मारने के आरोप में तीन लोगों को गिरफ्तार किया है। चिंकारों को गोली मारने के आरोप में तीन लोगों को गिरफ्तार किया है।

Tuesday April 03 2007
चिंकारे का शिकार, तीन गिरफ्तार
वाड़मंड जिले के शिव शाना क्षेत्र में चिंकारों का शिकार कर लिया गया। पुलिस के आदेश पर तीन लोगों को गिरफ्तार कर लिया गया। पुलिस के आदेश पर तीन लोगों को गिरफ्तार कर लिया गया। पुलिस के आदेश पर तीन लोगों को गिरफ्तार कर लिया गया।

Thursday June 28 2007
दो हरिणों का शिकार, 4 गिरफ्तार
जाधपुर जिले के वन्य जीव शाखा ने बुधवार को जिले के अरिना क्षेत्र की पंढितजी की दुर्गा तालमलवाड़ा तट पर स्थित भीमाराम जाट के खेत में दो हरिणों को मार कर ले जा रहे चार शिकारियों को जामीनों के सहयोग से मंत्र पर गिरफ्तार किया। शिकारियों से दो मृत हरिणों का शिकार कर लिया गया। शिकारियों से दो मृत हरिणों का शिकार कर लिया गया।

Thursday June 28 2007
दो हरिणों का शिकार, 4 गिरफ्तार
जाधपुर जिले के वन्य जीव शाखा ने बुधवार को जिले के अरिना क्षेत्र की पंढितजी की दुर्गा तालमलवाड़ा तट पर स्थित भीमाराम जाट के खेत में दो हरिणों को मार कर ले जा रहे चार शिकारियों को जामीनों के सहयोग से मंत्र पर गिरफ्तार किया। शिकारियों से दो मृत हरिणों का शिकार कर लिया गया। शिकारियों से दो मृत हरिणों का शिकार कर लिया गया।

Sunday April 22 2007
हरिण का शिकार, आरोपी फरार
वाड़मंड पुलिस थाना तट में शनिवार को एक हरिण का शिकार का मामला दर्ज किया गया है। शिकार करने के दोनो आरोपी फरार हो गए हैं। पुलिस ने बताया कि बांधिया जगदीश गांव भेंट पर्याप्त पुत्र शिव पर्याप्त स्वामी ने मामला दर्ज करवाना कि शुक्रवार रात उस वजे उसने अपने खेत में एक ट्रेक्टर के चलने की आवाज सुनी।

Sunday July 01 2007
कुत्तों ने दो हरिणों को नोंचा
जाधपुर आवासीय क्षेत्र से दूर छोड़े गए कुत्तों ने शनिवार को जिले के गुहा विश्वाङ्गा तथा फिदकालनी में दो नर चिंकारों को गंभीर रूप से घायल कर दिया। जामीनों की सूचना के बाद वनपाल प्रतापसिंह मंत्र पर पहुंचे और दोनो हरिणों को जंतुआलय के रेस्क्यू सेंटर पहुंचाया। जंतुआलय में डॉक्टर धर्मासिंह राठौड़ ने उनका इलाज शुरू किया।

उन्हें रिंगर लेवटेड एवं सेलाइन इंजेक्शन लगाए गए तथा स्क्रूकोज चढ़ाया गया। कुत्तों ने एक चिंकारा को जगहजगह नोंचा दिया। वहीं दूसरे की टांग घायल कर दी। जंतुआलय में यने रेस्क्यू सेंटर में सहयोग वनपाल गोवर्धनसिंह व फ्लोरिडक फतेह भारती घायल चिंकारों की देखरेख कर रहे हैं।

इधर, शुक्रवार को दासनी शिवधुना तथा पीपाइ रोड वन्य जीव गांव के पास आवासीय कुत्तों ने दो चिंकारों को मार दिया था। उल्लेखनीय है कि नगर निगम की ओर से शहरी सीमा से बाहर खदेड़े जाने वाले श्वान वन्यजीवों को हानि पहुंचाने की घटनाओं में दिनोंदिन बढ़ती जाती रही है।

About the Investigator

Dr. Sumit Dookia, Principal Investigator of this project is working in the Thar Desert on endangered fauna since 1999. His doctoral work was on the Ecology of Indian Gazelle/Chinkara (*Gazella bennettii*) from this area, and awarded University Research Scholarship from J. N. V. University, Jodhpur, Rajasthan, for the same. He also worked with Desert Regional Station, Zoological Survey of India, Jodhpur on Faunal diversity of Thar Desert, and assigned to work on Avian and Mammalian diversity of this region. During his doctoral work, he comes close to the local communities and starts working with them for the conservation of desert wildlife. He also worked in Satpura-Maikal landscape, particularly in Kanha, Pench and Satpura Tiger Reserve in Madhya Pradesh with Project Tiger Directorate, New Delhi and Wildlife Institute of India, Dehradun. He has Masters degree in Zoology and holds a vision for conserving natural habitat with the involvement of local communities, various government and non-government organizations.



