

## Project update: April 2025

This report provides an update on our field activities and research findings from the Aravalli landscape of Haryana from August 2024 to March 2025. We accomplished our field exercises in the mentioned duration and conducted the following activities:

- A. Preliminary survey
- B. Training programme
- C. Camera trapping
- D. Questionnaire survey
- E. Awareness and outreach activities
- F. Findings
- G. Future plans

### A. Preliminary survey

For two weeks, we visited the villages proximate to the Aravalli landscape with possible carcass disposal sites and met with various stakeholders (local people, herders, shepherds, farmers, and gaushala authorities) in six districts (Charkhi Dadri, Mahendergarh, Rewari, Gurugram, Faridabad, and Nuh) of Haryana. We asked them about their carcass management strategy and for timely notification of disposed carcass.



**Figure 1 & 2:** Feathers of avian scavengers and pugmark of Indian leopard *Panthera pardus* at carcass site respectively.

### B. Training programme

We advertised our recruitment of field assistant in local colleges and online platform of YETI and considered four field assistants Pranali Trivedi, Chitrani Gore, Vandana Rani, and Rahul Nandi. We trained them with various field methods of data collection such as sign surveys, GPS functioning, carcass monitoring, camera trapping, questionnaire surveys, and data compilation.



**Figure 3 & 4:** Field assistants (Vandana Rani and Rahul Nandi) learning camera trapping and carcass monitoring respectively.

### **C. Camera trapping**

To assess the carcass visitation of scavengers and their relative interactions, we monitored wild ungulate carcass like blue bull and domestic like sheep, goat, cow, and buffalo. We categorized the carcass site as per the number of provisioned carcasses into frequent, infrequent, and single carcass. We captured 20 species of vertebrate scavengers at carcass site including facultative scavengers and some insectivorous birds at nearly 100 carcasses.



**Figure 5:** Camera trap deployment at carcass site with field assistant, Pranali Trivedi.

### **D. Questionnaire survey**

We administered questionnaire survey of more than 300 respondents in local language, Haryanvi. People have admitted diverse ecosystem services provided by the scavenging vertebrates.





**Figure 6:** Questionnaire survey of local respondents about the ecosystem services provided by vertebrate scavengers with field assistant, Chaitrali Gore.

### E. Awareness and outreach activities

We conducted various awareness programs with schools, colleges, local panchayats, agropastoral communities, and forest departments and distributed stickers, t-shirts, and stationaries. During the awareness program, we targeted to reach a large number of audiences and sensitized more than 2000 people.





## राजकीय महाविद्यालय नारनौल के प्राणी शास्त्र विभाग द्वारा मुर्दाखोर जीव-जंतुओं के संरक्षण हेतु एक विस्तार व्याख्यान करवाया गया

नारनौल (हरियाणा ज्योति) राजकीय स्नातकोत्तर महाविद्यालय नारनौल के प्राणी शास्त्र विभाग के द्वारा मुर्दाखोर जीव-जंतुओं के संरक्षण हेतु एक विस्तार व्याख्यान प्राचार्य डॉ पूर्ण प्रभा की अध्यक्षता में किया गया। प्रोग्राम का शुभारंभ प्राचार्य डॉ पूर्ण प्रभा और उप प्राचार्य डॉ जगजीत सिंह मोर ने और मुख्य वक्ता हितेश कुमार ने सरस्वती पूजा दीप प्रज्वलन करके किया और मुख्य वक्ता का फूल मालाओं और बुकों द्वारा स्वागत किया गया। विभागाध्यक्ष और कुलसचिव डॉ सत्य पाल सुलोदिया ने बताया कि इस विस्तार व्याख्यान में सलीम अली सेंटर फ़ॉर आर्निथोलॉजी (पक्षी विज्ञान) नैचुरल हिस्टरी केरल राज्य से आए हुए मुख्य वक्ता हितेश कुमार और उनकी सहयोगी कुमारी चित्रा उपस्थित रहे। मुख्य वक्ता हितेश कुमार ने बताया कि ने



कंजर्वेशन ऑफ़ स्केवेंजर्स एण्ड इट्स इम्पोर्टेंस (मुर्दाखोर जीवों का लुप्त होने के कारणों और महत्व उनके बचाव) के बारे में विस्तृत जानकारी विधार्थियों से साझा की सहयोगी चित्रा ने फोटोग्राफी और वीडियोग्राफी के माध्यम से किस तरह से जिला महेंद्रगढ़ के अरावली पहाड़ियों में जीवों को किस प्रकार से चिह्नित किया जाता है और सरकार की मदद से उन जीवों का संरक्षण किस तरह किया जा सकता है।

**Figure 7 & 8:** Awareness workshop at Govt. P.G. College, Narnaul, Mahendergarh, Haryana and circulation of our message, “ecological importance of scavengers” to large number of peoples via newspaper article (Dainik Jagran) respectively.





**Figure 9, 10, & 11:** Organized painting competition at Govt Sr. Sec. School, Rajawas, Mahendergarh, distributed stationary materials to students, and t-shirt to various stakeholders respectively.

**F. Findings:** We finished our intensive sampling of vertebrate scavengers' carcass visitation via camera trapping and questionnaire surveys of more than 300 respondents from agropastoral communities to understand their perceptions of scavengers' ecosystem services. We monitored more than 100 carcasses of wild and domestic ungulates and captured 20 species frequenting the carcass sites. Some of the frequently visiting species have been mentioned below (Figure 11-20).





**Figure 12-21:** Some common scavenging vertebrate Indian leopard, striped hyena (*Hyaena hyaena*), wild boar (*Sus scrofa*), Indian golden jackal (*Canis aureus indicus*), feral dog (*Canis lupus familiaris*), Jungle cat (*Felis chaus*), ruddy mongoose (*Herpestes smithii*) and Bengal monitor lizard (*Varanus bengalensis*), House crow (*Corvus splendens*), cattle egret (*Bubulcus ibis*), and rufous treepie (*Dendrocitta vagabunda*) visiting the carcass sites respectively.

#### G. Future plans:

- We will compile the large data set and assess the various ecological aspects of scavenging behavior.
- Manuscript will be prepared to publish in peer reviewed journals.
- We will write the chapters of Ph.D. thesis from the collected data as per our objectives.
- We will attend national and international conferences.
- We will formulate effective carcass disposal policies.
- We will submit progress report and technical report to forest department of Haryana and other funding agencies such as Council of Scientific & Industrial Research (CSIR).