

Interim Project Report: November 2024

**Conservation of Critically Endangered Dehradun Stream Frog in the
Human-Dominated Landscape of the Himalayas through Fieldwork,
Participatory Research, and Education,**



~ Report prepared by Vishal Kumar Prasad and team ~

Supported by Mohamed bin Zayed Species Conservation Fund

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Project Background

Amolops chakrataensis, the Dehradun Stream Frog, is listed as Critically Endangered on the IUCN Red List due to its restricted range and significant habitat degradation in the Chakrata region of Uttarakhand, India. This species, found in high-altitude, fast-flowing streams within temperate and oakwood forests, faces serious threats from human activities such as water abstraction for agriculture



Figure 1: Holotype of *Amolops chakrataensis* in Zoological survey of India, Dehradun collected during 1985. (c) Vishal Kumar Prasad 2024

and domestic use, dam construction, and stream alteration. These activities have caused stream drying and disrupted the natural habitat required for the species' survival.

This project aims to conduct field surveys to generate baseline data on the species' distribution, population, and habitat conditions, while also raising awareness among local communities, stakeholders, and the state forest

department. By engaging these stakeholders, the project seeks to mitigate threats to the species and promote its long-term conservation through participatory research and education.

Fieldwork and Baseline Data Collection

Fieldwork for this project commenced in the summer of 2024, continuing until November 2024. A team of four researchers and local field assistants, including Vishal Kumar Prasad (Project Lead), Kumudani Bala Gautam, Bhim Singh, Davendra Singh Rawat, and Amit Badola, conducted extensive surveys across the known distribution range of *A. chakrataensis* in the Chakrata and Sahiya landscapes of Dehradun, Uttarakhand. The team was joined by experienced herpetologists from institutions including the Lab of Animal Behaviour and Conservation, Zoological Survey of India, Wildlife Institute of India, IUCN SSC Amphibian Specialist Group, Biodiversity Research and Conservation Foundation, and the Forest Department of Uttarakhand.

Over the course of the fieldwork, the team conducted Visual Encounter Surveys (VES), aural surveys, and egg/tadpole detection. DNA barcoding was also employed to detect *A. chakrataensis* in high altitude streams in Chakrata. A total of 27 first, second, and third-order streams and rivers were surveyed across the species' known range in Chakrata in Dehradun district of Uttarakhand. Each site as surveyed at least three times across different seasons to ensure a detailed assessment.



Figure 2: Project team including Vishal Kumar Prasad, Dr. Kumudani Bala Gautam, Amit Badola and Davendra Singh surveying stream habitats. (c) Davendra Singh Rawat

Despite thorough surveys, no direct or indirect evidence of *A. chakrataensis* was detected in Chakrata during the six months of fieldwork between June and November 2024. This initial outcome suggests that the species may be extremely rare or has potentially been extirpated from its type locality in Chakrata. However, this needs further surveys in different seasons in Feb to April in 2025 to confirm. This finding is concerning and highlights the urgent need for continued monitoring and conservation action.

Community Engagement and Awareness Programs

In addition to field surveys, the project team has been actively involved in raising awareness and engaging local communities in conservation efforts. Over the course of the fieldwork, awareness programs were conducted in 12 villages surrounding the type locality of *A. chakrataensis* in Chakrata. These programs focused on educating villagers and school students and teachers about the ecological importance of *A. chakrataensis* and the need to conserve its habitat.



Figure 3: On field awareness program with school teachers and students for studying species and habitat in Jodi Chakrata (type locality village of *Amolops chakrataensis*). (c) Davendra Singh Rawat

To further engage the local population, the team organized a cleanliness drive in key streams to improve water quality and restore the habitats essential for the species. The drive involved local villagers, helping them understand the link between stream health and the survival of the target frog species.

Furthermore, hands-on training in Citizen Science was provided to enhance local field skills. We trained 52 volunteers on different occasions. Villagers were trained in species identification and data collection, techniques, allowing them to

contribute valuable information to the project. This not only helped increase awareness but also empowered local communities to play an active role in the conservation of the species.

Preliminary findings and threat Identification

While no evidence of *A. chakrataensis* was found during the surveys, several critical threats to the species' habitat were identified. These include water diversion, habitat fragmentation, and solid waste pollution from nearby human settlements and agricultural activities. The findings underline the urgent need for habitat study in detail and the mitigation of these threats to ensure the long-term survival of *A. chakrataensis* in the region.

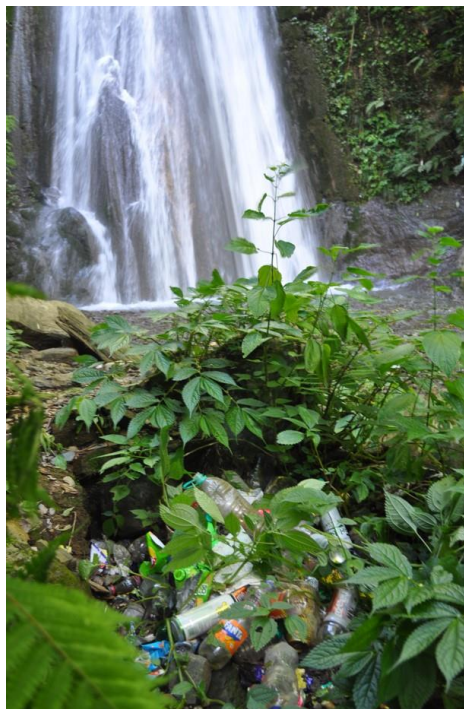


Figure 4: Threat identification in the pristine habitat of *Amolops chakrataensis* in Jodi Chakrata. (c) Davendra Singh Rawat

Next steps and upcoming plans

As per planned project activities, the team is in the process of analysing the baseline data collected during the field surveys between June and November 2024. Preliminary findings will be submitted for publication in peer-reviewed journals. Fieldwork will resume in February 2025, once the winter conditions in the Himalayas subside. The team will continue to search for *A. chakrataensis* in the region and update MBZ on the findings.

In addition to continuing field surveys, the project will focus on furthering educational outreach and collaboration with local communities and the state forest department. The goal is to foster long-term conservation efforts and create a model for community-based conservation that can be replicated in other areas.

Conclusion

The fieldwork conducted thus far has provided valuable data on the distribution and threats faced by *A. chakrataensis*, even though no direct sightings were recorded. The community engagement activities have successfully raised awareness and empowered local people to participate in conservation efforts. The continuation of this project will be crucial in developing long-term conservation strategies for the species, with a focus on habitat protection, threat mitigation, and local community involvement. The results of the baseline survey and conservation strategies will be shared through publications and a final project report, which is expected to be submitted to MBZ in May/June 2025.