

Project Update: December 2023

Current project activities:

Examining the influence of the invasive tree *Senna spectabilis* on forage availability and elephant distribution

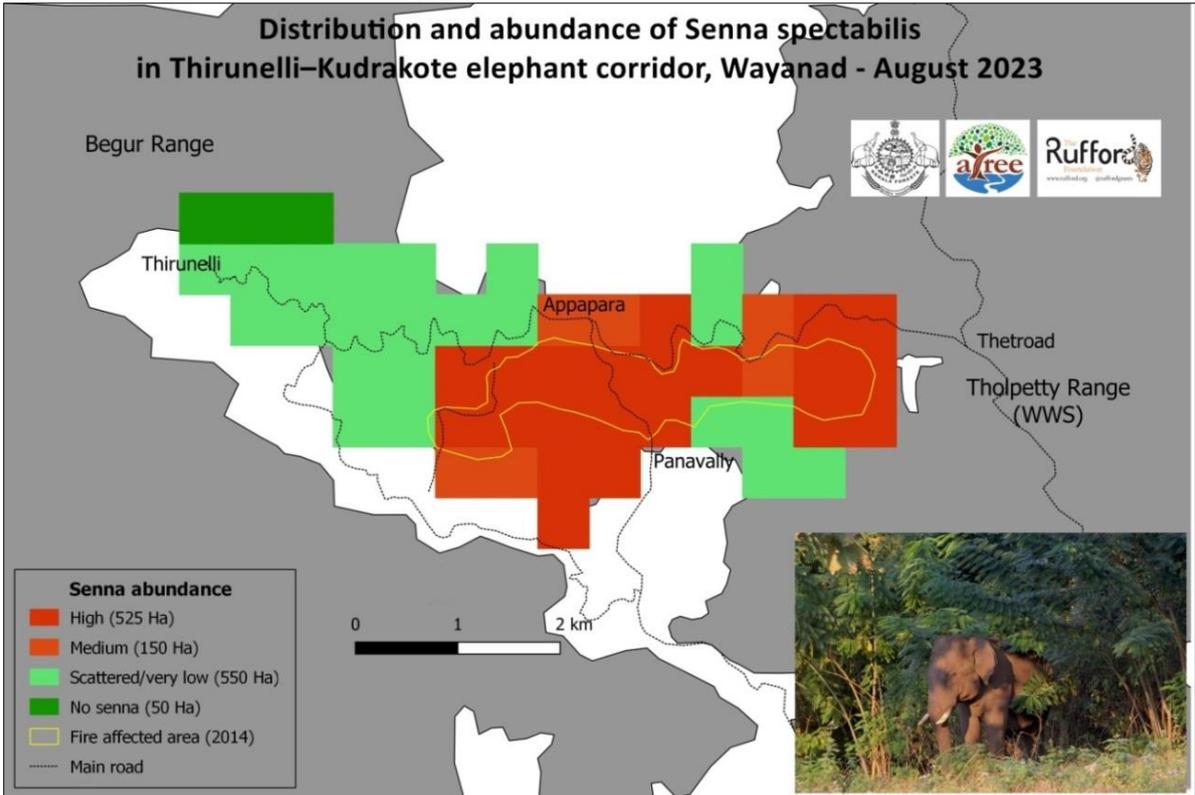
Significant progress has been made in the collection of vegetation data from 230 plots, each with a 10 m radius. These plots were selected to encompass both high and low invasion conditions of *Senna spectabilis*. Additionally, uninvaded conditions were included to serve as a reference site for thorough comparative analysis. The vegetation sampling initiative is expected to be completed by March 2024. In parallel, a comprehensive dung count survey has been successfully conducted, targeting different density classes of *Senna*. This survey spanned both pre- and post-monsoon periods, contributing valuable insights. Looking ahead, the survey for the summer season is scheduled to be completed in March 2024.



Field sampling in Tholpetty Range of Wayanad Wildlife Sanctuary.

Camera trap and field survey to identify crop-raiding elephants.

A network of six strategically placed camera traps has been deployed across various locations within the landscape, serving as vigilant observers to monitor the movements of crop-raiding elephants. The ongoing intensive study has already identified 17 individual elephants involved in crop-raiding. Our commitment to this research component extends until August 2024, with the aim of capturing a comprehensive understanding of the conflict dynamics by identifying the maximum number of individuals involved. This continued effort will contribute invaluable insights to mitigating and managing human-elephant conflicts in the region.



Distribution and abundance of *Senna spectabilis* in the Thirunelli-Kudrakote elephant corridor in August 2023.





Camera trap images from the field .

Filed activities:

Community based eco-restoration in the Thirunelli-Kudrakote elephant corridor:

Conducted on October 15, 2024, the 'Sudiyormayil' eco-restoration programme in the Thirunelli-Kudrakote Elephant Corridor was a collaborative effort involving Pazhassi Grandalayam, Mananthavady, Ashoka Trust for Research in Ecology and the Environment (ATREE), and the Kerala Forests and Wildlife Department. This corridor, nestled in the Brahmagiri-Nilgiri-Eastern Ghats Elephant Landscape of the Western Ghats, is home to the largest breeding population of Asian elephants globally. The programme's inauguration, led by Shajan and Ajayan PA, involved planting an 'orma maram' (*Ficus religiosa*) in memory of the late Sudheesh Karingari. A total of 250 saplings of the traditional mango plants (natumavu in local language) were planted by 30 participants during the programme, contributing to the revitalisation of the habitat.



Participants are planting saplings of traditional mango varieties within the Thirunelli-Kudrakote Elephant Corridor.

Publications from the project:

Peer-reviewed scientific articles

Anoop, N. R., Krishnaswamy, J., Kelkar, N., Bunyan, M., & Ganesh, T. (2023). Factors determining the seasonal habitat use of Asian elephants in the Western Ghats of India. *The Journal of Wildlife Management*, 87(8), e22477. <https://doi.org/10.1002/jwmg.22477>

Anoop, N. R., Krishnan, S., & Ganesh, T. (2023). Elephants in the farm—changing temporal and seasonal patterns of human–elephant interactions in a forest–agriculture matrix in the Western Ghats, India. *Frontiers in Conservation Science*, 4, 1142325. <https://doi.org/10.3389/fcosc.2023.1142325>

Anoop, N. R., Femi, E. B., Yathumon, M. A., & Punnath, A. (2023). Butterflies with a taste for elephant dung: Puddling of adult butterflies on elephant dung in India's Western Ghats. *Food Webs*, 37, e00323. <https://doi.org/10.1016/j.fooweb.2023.e00323>

General articles

Anoop NR., & T. Ganesh (2023) Impact of alien plants on Western Ghats causes concern. <https://frontline.thehindu.com/environment/impact-of-alien-plants-on-western-ghats-causes-concern/article66919357.ece>

Articles featured the output from the project

<https://india.mongabay.com/2023/10/wayanad-is-summer-home-for-elephants-says-a-study/>
<https://www.deccanherald.com/science/elephants-in-farmlands-1237128.html>

Media coverage

<https://www.youtube.com/watch?v=bRspqY7KKII>

Report submitted

Distribution of the invasive tree *Senna spectabilis* in the Thirunelli-Kudrakote elephant corridor, Wayanad, implications for management. Report submitted to the department of forests and wildlife, Kerala.