



URBAN TIGER CONSERVATION PROJECT

MID YEAR REPORT

2024

Supported by:



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Contents

| | |
|--|----------|
| ACKNOWLEDGEMENT..... | 3 |
| LIST OF TABLES..... | 6 |
| LIST OF FIGURES..... | 6 |
| 1. INTRODUCTION..... | 9 |
| 2. BACKGROUND OF URBAN TIGER VOLUNTEER PROGRAM | 12 |
| 2.1 OBJECTIVES | 12 |
| 3. MONITORING AREA | 13 |
| 4. IDENTIFICATION, TRAINING AND ROLE OF VOLUNTEERS | 17 |
| 5. FIELD ACTIVITIES AND RESULTS..... | 19 |
| 5.1 Field training and monitoring volunteers..... | 19 |
| 5.2 Monitoring and documentation of Tigers | 20 |
| Monitoring tigers in City..... | 20 |
| Tiger monitoring in Raisen..... | 21 |
| Tiger monitoring in Private Estate near Khari, Sehore | 23 |
| 5.3 Field staff meeting and field visits | 24 |
| Division & Range Level Meetings | 24 |
| Organization Exposure Visit..... | 25 |
| 5.4 Capacity building for field staff and village volunteers..... | 27 |
| 5.5 Rescue and Rehabilitation | 29 |
| 5.7 International Tiger Day Awareness program 2024..... | 31 |
| 5.8 Sensitization Programs | 33 |
| 6 LIST OF VOLUNTEERS | 36 |
| 7 RESULTS..... | 40 |
| 7.1 Kaliasot-Kerwa-Kolar Area (Bhopal-Ratapani Connecting Forest)..... | 40 |
| <i>Kerwa-Kaliasot-Walmi Zone (10 sq. km)</i> | 40 |

| | |
|---|----|
| <i>Chichali-Bhanpur Zone (12 sq.km)</i> | 44 |
| <i>Jhiri-Veerpura zone (12 Sq. Km)</i> | 44 |
| <i>Khari-Anwala zone (14 sq. km)</i> | 48 |
| 7.2 Raisen Division (April-June 2024)..... | 50 |
| 8 RECOMMENDATIONS AND WAY FORWARD | 58 |

LIST OF TABLES

| | |
|--|----|
| Table 1: List of Volunteers..... | 36 |
| Table 2: Camera trap Distribution in the landscape | 37 |

LIST OF FIGURES

| | |
|--|----|
| Figure 1: Habitat used by tiger in Kerwa-Kaliasot Area of Southern Bhopal city © DP Srivastava | 9 |
| Figure 2: Habitat used by tiger in Kaliasot-WALMI Area of Southern Bhopal city © DP Srivastava | 10 |
| Figure 3: Forest-Agriculture Edge Habitat in Western side of Bhopal city © DP Srivastava | 10 |
| Figure 4: Tiger passing through fences in Bhopal | 11 |
| Figure 5: Tigress T123 with city lights in background © DP Srivastava..... | 11 |
| Figure 6: Left to right Mr Shivpal Pipardhe, Mr Abhilash Khandekar, Mr DP Srivastava, Mr Ravi Singh, Mr Alok Pathak & Mrs Sangita Saxena | 12 |
| Figure 7: Field training for field staff | 12 |
| Figure 8: Bhopal Forest Circle: A potential landscape for tiger conservation..... | 13 |
| Figure 9: Target grid of study area (Bhopal, Sehore & Obedullahganj Division) | 14 |

| | |
|---|----|
| Figure 10: Tiger monitoring in East & West Raisen Range, Raisen Division | 15 |
| Figure 11: Field activities done by the volunteers..... | 18 |
| Figure 12: Field kit and training to volunteers..... | 19 |
| Figure 13: Field monitoring and training..... | 19 |
| Figure 14: Volunteers of Veerpura Area meeting at Khari, Sehore | 19 |
| Figure 15: Camera trap safety boxes, rechargeable batteries & Camera traps..... | 20 |
| Figure 16: Young cub with T123 has been observed in July 2024 in Kerwa | 20 |
| Figure 17: Tiger monitoring in WALMI | 21 |
| Figure 18: First observation of NT1 Tiger in Raisen in February 2024 (upper images) and Tiger pictures from Badwaha in May 2023 (lower images) | 22 |
| Figure 19: NT1 Tiger confirmation and monitoring on Raisen Fort (March 2024) | 23 |
| Figure 20: Tiger T123-5 monitoring in a private estate of Khari, Sehore by field staff and volunteers..... | 24 |
| Figure 21: Field visit & staff meeting by DFO Mr Alok Pathak and SDO Mr Dheeraj Singh Chauhan in Kerwa (April 2024) | 24 |
| Figure 22: Male Tiger T-123-4 in Cement Road, Kerwa..... | 25 |
| Figure 23: Field visit of WWF-India team (April 2024) | 26 |
| Figure 24: Capacity Building for field staff and village volunteers (May 2024) | 28 |
| Figure 25: Monitoring tracks of NT1 Tiger in Raisen with field staff and volunteers (May 2024) | 28 |
| Figure 26: Rescue of Cubs from Jhiri, Dahod Range (May 2024)..... | 29 |
| Figure 27: Rescue of problematic individual NT1 from Raisen (June 2024) | 30 |
| Figure 28: Rescue of NT1 in Raisen | 31 |
| Figure 29: Awareness Program in Schools (July 2024) | 32 |
| Figure 30: Awareness program at Khari, Sehore | 33 |
| Figure 31: Case-study presentation at Jain University and Mount Carmel College | 33 |
| Figure 32: Screening of Documentary "The Urban Tiger Volunteers of Bhopal" | 34 |
| Figure 33: Tiger Day Awareness Program in Indore | 34 |
| Figure 34: Field training to staff of Narsinghgarh WLS (August 2024)..... | 35 |
| Figure 35: Map of camera trap locations and zones (Oct 2023-Mar 2024) | 38 |
| Figure 36: Map of camera trap locations and zones (March-September 2024) | 39 |
| Figure 37: Tigers using Bhopal city-WALMI-Kaliasot-Kerwa..... | 43 |

| | |
|---|----|
| Figure 38: Tigers using Jhiri-Veerpura area | 47 |
| Figure 39: New floater male in Khari (March 2024) | 48 |
| Figure 40: Tigers using Khari-Anwala Zone..... | 49 |
| Figure 41: NT1 Male (problematic individual) right flank and left flank | 50 |
| Figure 42: BT 8 Male having territory in Samardha, Bhopal to Hirankheda, Raisen | 51 |
| Figure 43: RT 6 Female having territory in Chilwaha and Raisen | 51 |
| Figure 44: NRT 1 Female left flank..... | 52 |
| Figure 45: NRT 1 Female right flank (need confirmation) | 52 |
| Figure 46: NRT 2 Female Left flank..... | 53 |
| Figure 47: NRT 2 Female Right flank (need confirmation) | 53 |
| Figure 48: NRT 3 Female Right flank | 54 |
| Figure 49: RT 6 Female and NT 1 Male seen together | 54 |
| Figure 50: Leopard with cubs | 55 |
| Figure 51: Honey Badger..... | 55 |
| Figure 52: Rusty-spotted Cat..... | 56 |
| Figure 53: Sloth bear with cubs | 56 |
| Figure 54: Movement of NT1 in Raisen division..... | 57 |

1. INTRODUCTION

As long-term monitoring, Urban Tiger Conservation Project (www.urbantigers.org) monitors tigers and other carnivores in the city to understand the potential of urban landscapes for conserving large carnivores. In 2021-22, we collated all available tiger photographs with forest department of Bhopal Division, Sehore Division, and Obedullahganj Division and identified 83 individual tigers (including 13 young cubs). The recent All India Tiger Estimation 2022 report states the presence of 96 tigers in Bhopal-Ratapni-Kheoni Landscape. The regular monitoring in the city and adjoining green spaces states the presence of 6 Tigers (1 ♂, 1 ♀ and 4 cubs) using Municipal Limits of Bhopal city and more than 10 individual adult tigers and 3 cubs using the buffer of 5km of Bhopal City. The tiger movement in core built-up areas are rare but the areas on the edge of the city is mosaics of land use including farmlands, parks, forest, scrubland, waterbodies and low-density residential area as compared to city. In these landscapes, people's land use and practices also lead to changes in wildlife habitats and species space-use. This increases human-wildlife interactions and peri-urban landscapes become arenas of different interactions and encounters. Achieving coexistence or co-sharing of spaces between humans and wildlife in these peri-urban landscapes is a new challenge for conservation managers, policymakers, and communities in these areas.



Figure 1: Habitat used by tiger in Kerwa-Kaliasot Area of Southern Bhopal city © DP Srivastava



Figure 2: Habitat used by tiger in Kaliasot-WALMI Area of Southern Bhopal city © DP Srivastava



Figure 3: Forest-Agriculture Edge Habitat in Western side of Bhopal city © DP Srivastava

The frequent visit of tigers in the urban green spaces of Bhopal, provides an opportunity to ascertain a case study on the expanding outlines of the wildlife compass and the prospect of wildlife in green spaces of the city. With the intensifying urban activities, the co-occurrence & co-existence of wildlife with human societies is becoming visible in Bhopal. The expanding development of urban areas upon tiger habitats, the natural space for tigers to roam and hunt reduces, increasing the likelihood of human-tiger interaction. The management of potential conflicts require a comprehensive approach, including community engagement to promote awareness about tiger behavior, monitoring and promote conservation. This can work towards mitigating any potential conflicts and fostering peaceful coexistence between humans and tigers.



Figure 4: Tiger passing through fences in Bhopal

Tiger presence in populated areas needs to be dealt with caution considering risk for tigers as well as communities residing. Bhopal is one of the examples where tigers live in harmony with people in and around urban spaces for the last many years. The same understanding shall be fortified and backed by awareness, sensitization and research in the designated areas using local community.



Figure 5: Tigress T123 with city lights in background © DP Srivastava

2. BACKGROUND OF URBAN TIGER VOLUNTEER PROGRAM

All India Tiger Estimation 2022, states presence of 96 individual adults' tigers in Bhopal-Ratapani-Kheoni landscape including Tiger roaming in territorial forest areas in Urban landscape of Bhopal city. Urban Tigers Volunteer Program (UTVP) was initiated by DP Srivastava with support of Mr Alok Pathak, CF & Acting DFO, Bhopal; WTI-RAP Grant & Rainmatter Foundation in 2023 with 10 volunteers (8 on the field and 2 coordinators), and a basic kit which including a Bag, data sheets, a set of camera traps with Safety boxes, Ruler, Pen, Marker, Card reader, Water bottle and T-shirt.

The program aims to establish a network of trained volunteers in the adjoining area of Bhopal City to monitor and create systematic Tiger movement data. This will also act as an early warning system for tiger movement in and around habitations.

Mr. Ravi Singh (CEO, WWF-India) visited the landscape in September 2023. The ongoing research on Urban Tiger Conservation Project was discussed with him which laid the foundation of the collaboration and support from WWF-India on Urban Tiger Volunteer Program.

The program officially started after 15th Feb 2024 with financially and equipment support

of 20 camera traps from WWF-India with aim to develop a community-led monitoring project.



Figure 6: Left to right Mr Shivpal Pipardhe, Mr Abhilash Khandekar, Mr DP Srivastava, Mr Ravi Singh, Mr Alok Pathak & Mrs Sangita Saxena



Figure 7: Field training for field staff

2.1 OBJECTIVES

UTVP was initiated with the same aim and following the objective

- To identify and train local nature enthusiasts and develop a network of volunteers from local communities
- To develop an ecological understanding on the tiger movement using community-based initiatives

3. MONITORING AREA

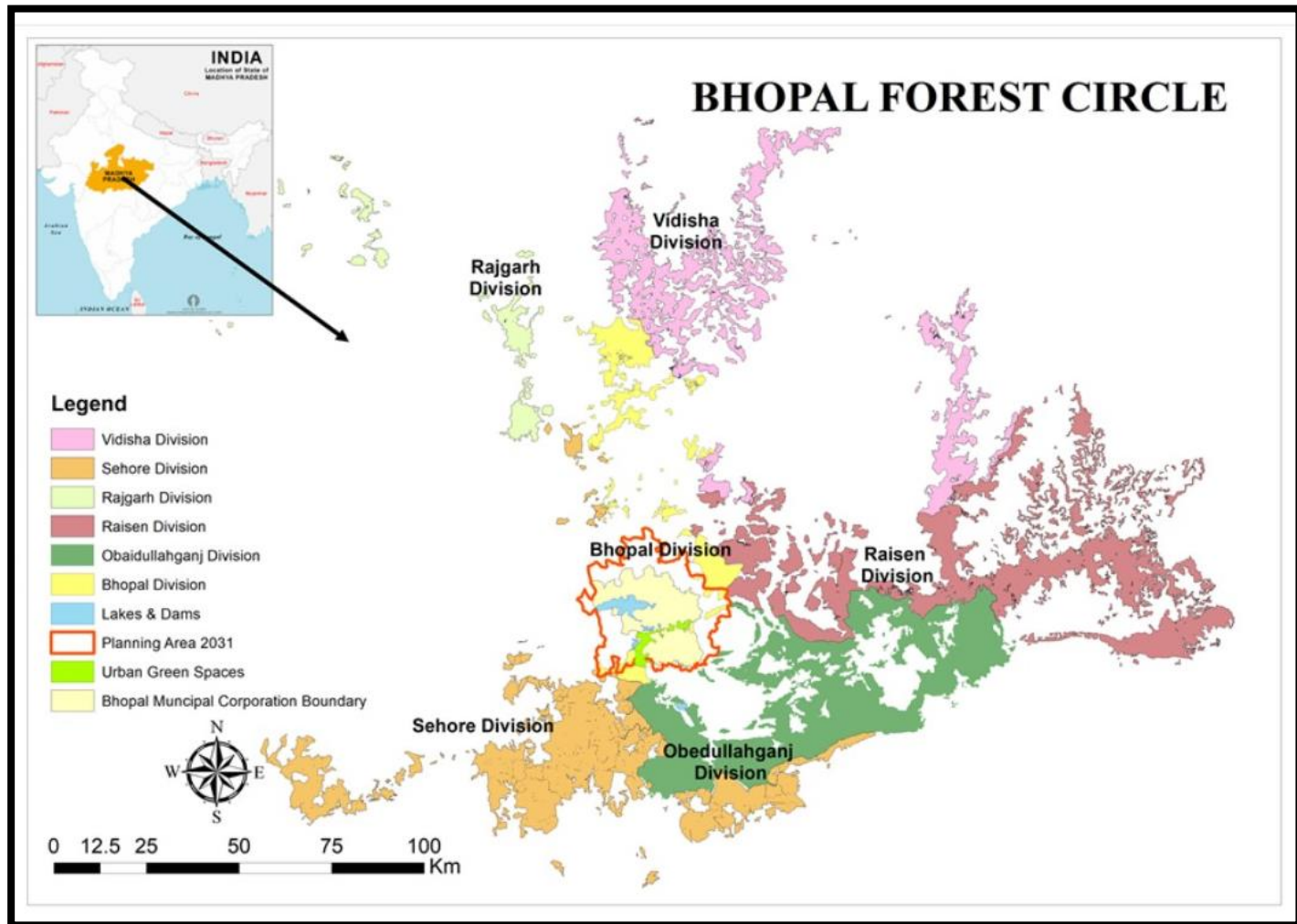


Figure 8: Bhopal Forest Circle: A potential landscape for tiger conservation

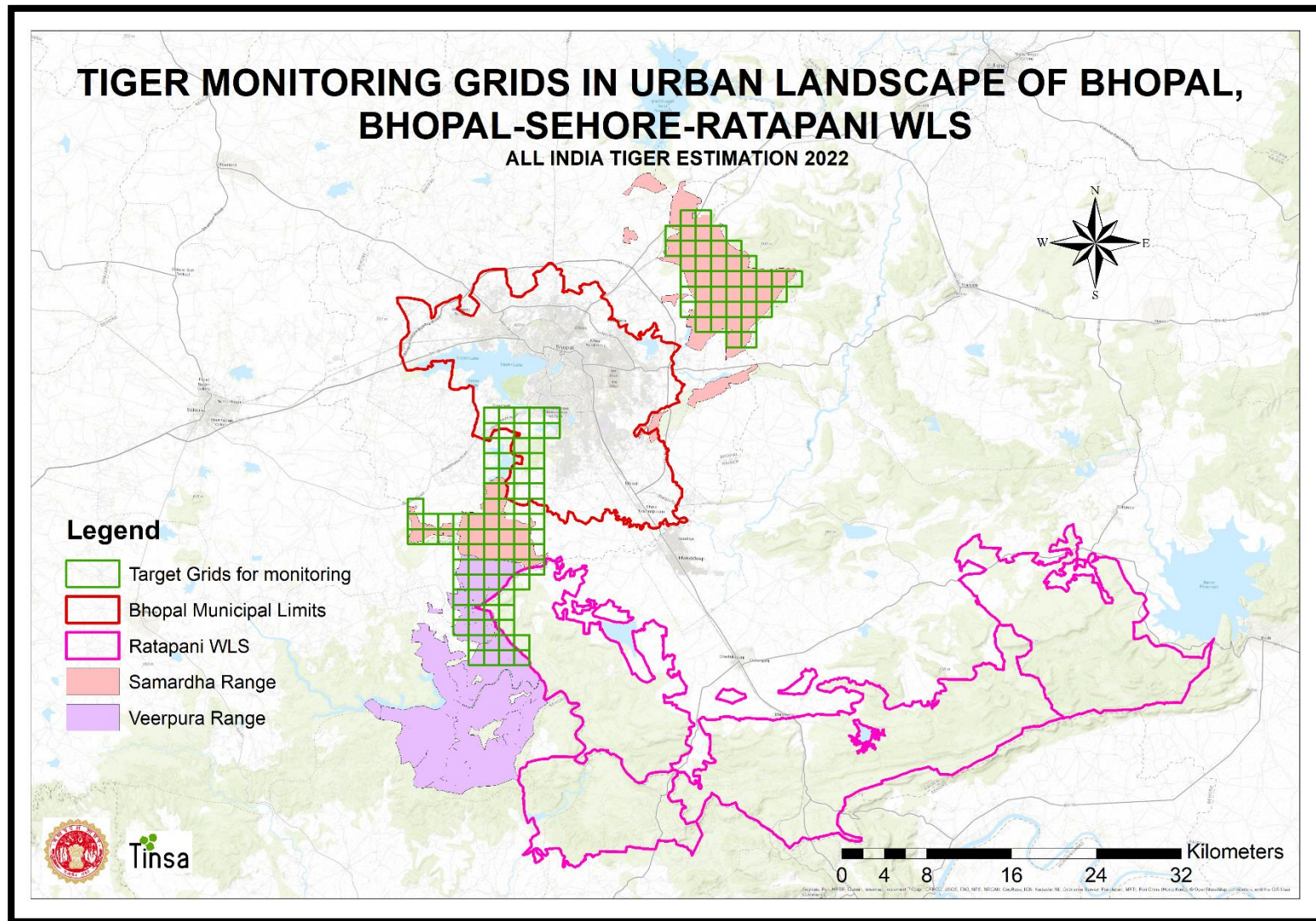


Figure 9: Target grid of study area (Bhopal, Sehore & Obedullahganj Division)

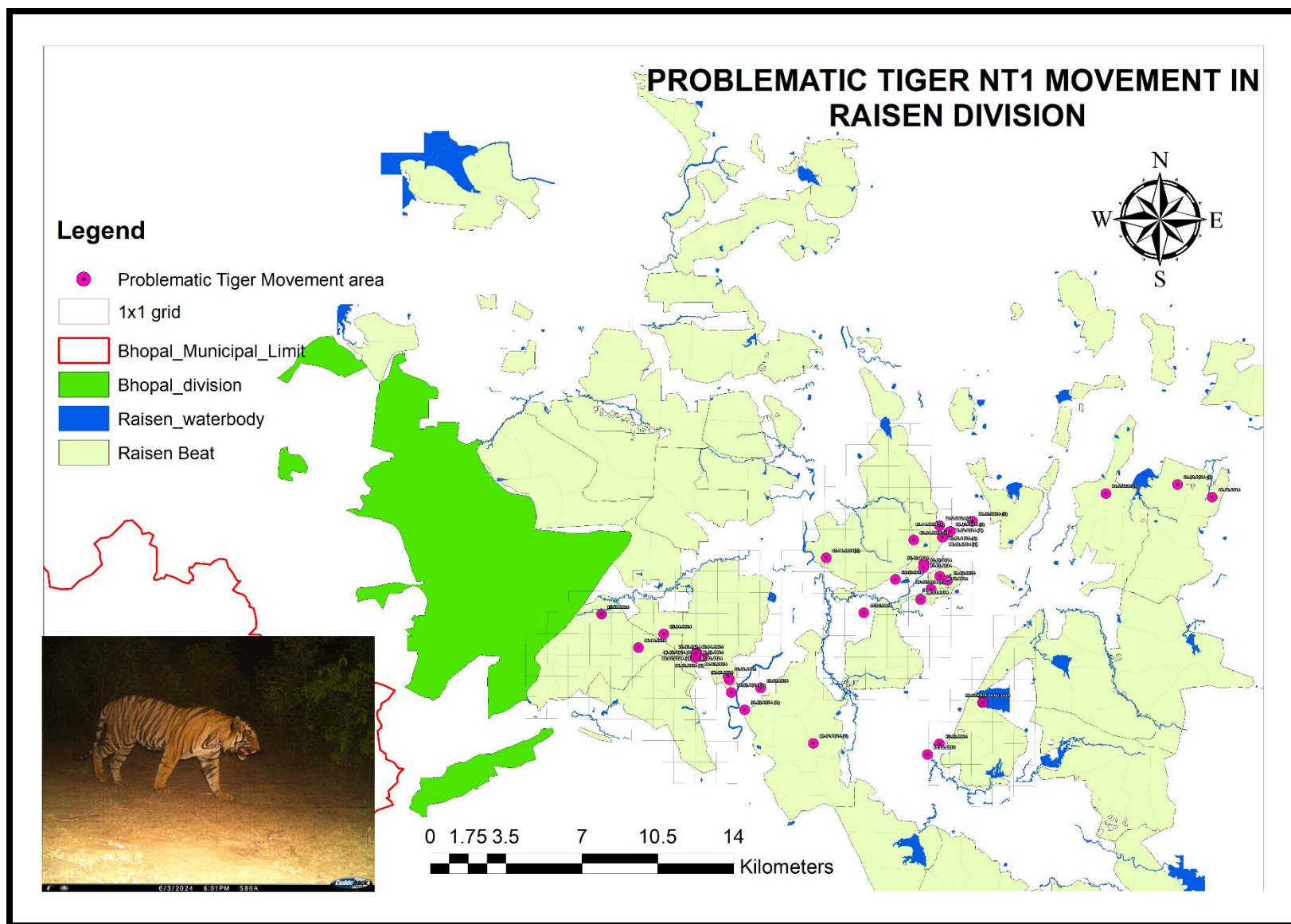


Figure 10: Tiger monitoring in East & West Raisen Range, Raisen Division

BHOPAL-SEHORE DIVISION: The volunteers are covering the western side of the landscape i.e. Anwala, Khari, Sevaniya Parihar and Charmandli toward the which is Forest-Agriculture Edge; the parts of Bhopal city i.e. Kerwa, Kaliasot, Walmi, etc.; and southern side of Bhanpur-Chichali area of Bhopal Division connecting city with Ratapani Wildlife Sanctuary.

RAISEN DIVISION: Due to the movement of a problematic tiger NT1 movement in Raisen city and adjoining areas was monitored intensively with the help of village volunteers and field staff of Raisen East and Raisen West ranges of Raisen Division (Figure 10).

Post-monsoon the northern side of area including Prempura and Samardha area of Bhopal Division and parts of Raisen division and Obedullahganj Division on southern side will be also monitored.

During September 2023-Feb 2024, 25 tigers (2 dominant male, 1 floater male, 5 females and 17 sub-adult & cubs) were observed in Walmi-Kaliasot-Kerwa-Khari-Anwala-Jhiri Patch which is around 120 sq. km and 6 tigers (1 male, 3 females and 2 sub-adult tigers) were recorded from Samradha-Prempura area.

With effective management along with field staff, e-surveillance, patrolling teams and camera trap the program aims to increase volunteer numbers as well involving them sensitization programs.

4. IDENTIFICATION, TRAINING AND ROLE OF VOLUNTEERS

Volunteers are picked up from local communities and daily wage field staff who pose a passion for wildlife and environment enthusiasts. These volunteers are being tested on various aspects and trained before joining the field team. The program aims to not only increasing the number of volunteers but to establish a strong network of volunteers to collect information on presence of tigers and share timely information in the landscape. In addition, these volunteers will also play a crucial role in conflict reduction through their monitoring.

As volunteers, they do following activity (Figure 11)

- 1) **Field Tracks and sign monitoring:** Tracking tigers & other carnivores in the field, it's essential to be observant and look for various signs such as Pugmarks, Scratch marks, Drag Marks, Scats, Cattle Kills etc.*
- 2) **Camera trapping:** Potential camera trapping stations are identified and marked, based on the reconnaissance survey as well as field surveys. Motion-based remotely triggered camera traps are installed in different parts of green spaces and checked every 2nd day for the tiger movements and related information.*
- 3) **Cattle Kill monitoring:** With presence of large carnivores in the landscape, cattle kills are frequently observed and are being monitored by volunteers and field staff.*
- 4) **Water hole monitoring:** Waterholes play an important role in wildlife conservation hence, the health of the waterholes is important.*
- 5) **Precautionary measures:** As the information is collected on daily basis, the critical tiger movements such as movement near city, near habitation or in private properties are kept on priority and monitored intensively to avoid any kind of potential conflict.*



Figure 11: Field activities done by the volunteers



Figure 15: Camera trap safety boxes, rechargeable batteries & Camera traps

5.2 Monitoring and documentation of Tigers

Monitoring tigers in City

With the fourth litter of T123 in Kerwa (Figure 16), the sub-adult cubs of T123 (T1235, T1236, T1237 & T1238) are exploring areas for territories and are frequently visiting WALMI and other areas.



Figure 16: Young cub with T123 has been observed in July 2024 in Kerwa



Figure 17: Tiger monitoring in WALMI

Tiger monitoring in Raisen

Apart from regular monitoring in designated areas, tigers are being also recorded from new areas i.e. Raisen City in early Feb 2024. The tiger was frequently crossing roads and residential areas within Raisen city and on Raisen Fort. Later the individual was identified as NT1 which traveled from Indore to Raisen city. (Figure 18 & 19)



Figure 18: First observation of NT1 Tiger in Raisen in February 2024 (upper images) and Tiger pictures from Badwaha in May 2023 (lower images)



महू भास्कर 09-03-2024

महू में लंबे समय से ओझल बाघ रायसेन पहुंचा

भास्कर संवाददाता | महू

रायसेन शहर में घूम रहा बाघ महू से आया है। एसएफआरआई टीम ने इसकी पुष्टि की है। महू से भटकते हुए आए इस बाघ की पुतली और रायसेन में घूम रहे बाघ की नई तस्वीर का मिलान कर लिया गया है। इसमें दोनों ही तस्वीरों में बाघ के शरीर पर घाव का निशान है और दोनों की स्ट्रिप भी एक जैसी है।

महू में पिछले साल मई में बाघ का मूवमेंट शुरू हुआ था। जिसके बाद बाघ लगातार महू, मानपुर रेंज में दिखाई दे रहा था। लेकिन कौले दो माह से अधिक समय से बाघ का मूवमेंट महू में नजर नहीं आ रहा था। इसी बीच फरवरी के आखिरी सप्ताह में रायसेन में बाघ का मूवमेंट दिखा। जिसके बाद वन विभाग ने जब महू और रायसेन के

बाघ की तस्वीर मिलान की तो उसमें महू से ही बाघ के रायसेन तक पहुंचने की पुष्टि हुई है। 28 फरवरी को बाघ रायसेन की शहरी सीमा में आ गया था।

रायसेन डीएफओ विजय कुमार ने बताया कि दो माह पहले यह बाघ इंदौर के महू में भी देखा गया था। वन विभाग के दल ने रायसेन के बाघ और महू वाले बाघ के डाटा का मिलान किया है, जिसमें महू जिले और रायसेन में देखा जा रहा बाघ का डाटा मेल हो रहा है। रायसेन में दिखा रहा यह बाघ महू से होकर ही रायसेन आया है।

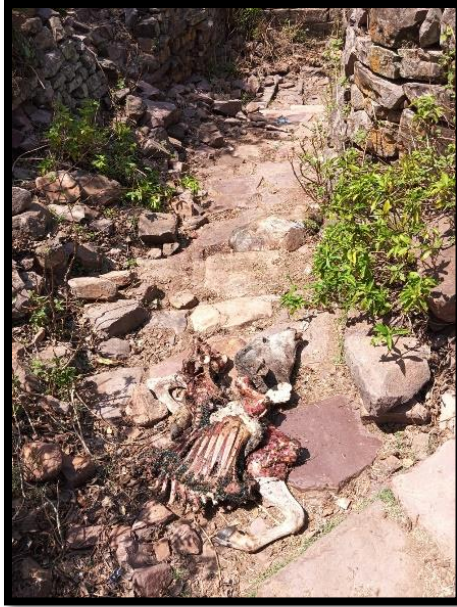


Figure 19: NT1 Tiger confirmation and monitoring on Raisen Fort (March 2024)

Tiger monitoring in Private Estate near Khari, Sehore

The Sub-adult cubs of T123-5 were observed near village Nainpura- Khurchani and later got settled in a private estate near Khari, where sub-adult tiger have cattle killed and frequently visit the estate. (Figure 20)





Figure 20: Tiger T123-5 monitoring in a private estate of Khari, Sehore by field staff and volunteers

5.3 Field staff meeting and field visits

Division & Range Level Meetings

DFO Mr. Alok Pathak and SDO Mr. Dheeraj Singh Chauhan chair meeting with Field staff including Beat Guards, field staff and volunteers on regular basis on different aspects including Fencing and security, Tiger movement, Staff training and field support.



Figure 21: Field visit & staff meeting by DFO Mr Alok Pathak and SDO Mr Dheeraj Singh Chauhan in Kerwa (April 2024)



Figure 22: Male Tiger T-123-4 in Cement Road, Kerwa

Organization Exposure Visit

To understand the project proponents of Urban Tiger Project, Mr Karan Bhalla, COO, WWF-India visited Kerwa centre. The Urban Tiger Conservation Project will be focusing on Awareness Programs lead by State office, WWF-India and Developing Urban Tiger Volunteer Network lead by Tinsa Ecological Foundation. During the event, Karan Bhalla, CEO, WWF-INDIA visited the Urban tiger landscape and have donated a Vehicle to Bhopal Forest Division for Tiger monitoring.

Mr Atul Srivastava, PCCF-WL; Mr Satyanad, APCCF-WL; Mr Rajesh Khare, CCF, Bhopal, Mr Ritesh Shrotiya, DFO, STF; Mr Avdesh Meena, Director Van Vihar NP & Zoo; Mr. Sunil Sinha, AD, Van Vihar; And Mr Dheeraj Singh Chauhan, SDO, Bhopal from MP Forest Department were present. Apart from Forest Department Mrs Sangita Saxena, Director State Office; Mr Sanket Bhale, Director CIL; Mr Sandeep Choksey, SOP, CIL; Mr Ajay Mishra, Mr Shashank Dubey, from WWF-INDIA State Office; Mr Ramnish Geer, JD, CBI & Mentor to Tinsa; DP Srivastava & Mr Amit Kumar, Director; Ms Purna Sharma, Ecologist from Tinsa Ecological Foundation and Mr Shivpal Pipardhe, Range Officer, and field staff of Samardha Range were also present.





Figure 23: Field visit of WWF-India team (April 2024)

During discussion following points have been agreed

- 1. PCCF-WL and APCCF-WL appreciated the initiative of Bhopal Division for collaborating with WWF-India and Tinsa Ecological Foundation.*
- 2. CCF Bhopal supported to extend the project of creating volunteers in other areas of Bhopal Forest Circle.*
- 3. SDO Bhopal, Mr Dheeraj Singh Chauhan proposed to create a blueprint of Tiger Management in the Bhopal landscape and PCCF-WL approved the same with the support of DP Srivastava.*
- 4. PCCF-WL also assured to provide 50 units of Camera traps from tiger reserves.*

5.4 Capacity building for field staff and village volunteers

Following the Tiger NT1 in Raisen City in first week of March 2024, DFO Raisen Mr Vijay Kumar has taken the lead to Monitor Tigers in Raisen Forest Division (T). With his field staff he was able to monitor movements and we identified it as a floater male which was last seen in Badwaha-Mahu, Indore in September 2023.

Understanding a good Tiger movement in Raisen Division, Mr Vijay has identified 50+ local village volunteers who can support the Forest department in reporting Tiger and Leopard Movements. These volunteers are closely living in and around the Forest of Raisen and are dependent on the Forest for various household needs. On 20th April 2024, we trained the staff and village volunteers "बाघ मित्र" In the identification of

field tracks and signs, making PIPs, and installing camera traps





Figure 24: Capacity Building for field staff and village volunteers (May 2024)

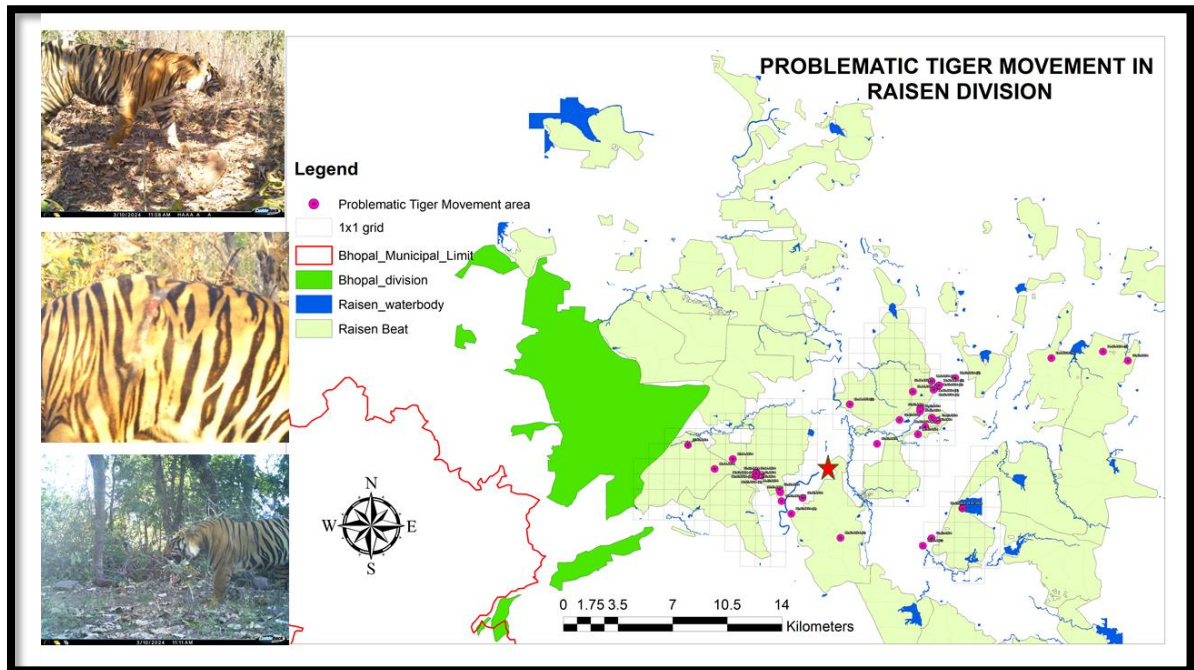


Figure 25: Monitoring tracks of NT1 Tiger in Raisen with field staff and volunteers (May 2024)

5.5 Rescue and Rehabilitation

During field monitoring, Jhiri field staff and volunteers observed young cubs for three days without a mother. Later they discovered a carcass of cub and an adult tigress which looked close to ST 21-423 (female).

With close monitoring and using the Boma technique two cubs were rescued on time and now shifted to Kanha Tiger Reserve.



Figure 26: Rescue of Cubs from Jhiri, Dahod Range (May 2024)

In an unfortunate accident, an old age villager of Neemkhhera Village, Raisen was accidentally killed by NT1 tiger. In response intensive monitoring and efforts to capture the individual was taken forward in 150 sq.km of area. Later the individual was captured on June 19th and relocated to Satpuda Tiger Reserve.



Figure 27: Rescue of problematic individual NT1 from Raisen (June 2024)



Figure 28: Rescue of NT1 in Raisen

5.7 International Tiger Day Awareness program 2024

On World Tiger Day, a comprehensive awareness program was successfully conducted in schools and colleges in and around Bhopal, thanks to the collaboration of the Bhopal Forest Division, WWF-India, Tinsa Ecological Foundation, and Bhopal Birds Conservation Society. The initiative aimed to aware and educate students about the significance of tigers and their role in the ecosystem along with a brief on urban tigers of Bhopal and how they adapted to the growing city. Teams were divided into three groups and local forest staff also joined the teams for ground help to maximize outreach.

Students were also educated on the critical importance of environmental responsibility, particularly within forested areas. They were informed about the dangers of discarding plastic waste and toxic substances, which can severely harm wildlife. Additionally, they were advised against throwing or breaking glass bottles in the forest, as broken glass can cause serious injuries to animals' feet that may not heal properly. The program included detailed guidelines on the do's and don'ts of responsible behavior in natural habitats, emphasizing the need to protect and preserve these environments for the well-being of all wildlife. They were also distributed with Bag, Mask and Caps.

The awareness program was successfully conducted in 29 schools, targeting a diverse student from rural background to urban background. The selection of schools included those adjacent to forest boundaries as well as those within city limits, ensuring a comprehensive reach. Special emphasis was placed on students who travel near forest boundary areas on their way to school, highlighting the importance of awareness for those with direct connections to forest environments.

Students living near forest areas exhibited significant curiosity about the forest ecosystem and tigers. They were educated on how to effectively spread this awareness to their parents, neighbors, and friends, discussing the importance of tigers and World Tiger Day. This approach aimed to extend the program's impact beyond the classroom, fostering a community-wide understanding and commitment to wildlife conservation.



Figure 29: Awareness Program in Schools (July 2024)

5.8 Sensitization Programs

- **Sensitization program** for Landscape Architecture Students of School of Planning and Architecture, Bhopal to expose them multi-use landscape and shared landscape of Humans as well as Tigers



Figure 30: Awareness program at Khari, Sehore

- **Case-study of Tiger Conservation in the Urban Landscape of Bhopal** was presented at Coexistence Consortium's month-long awareness program at Bengaluru.



Figure 31: Case-study presentation at Jain University and Mount Carmel College

- **Documentary Released:** A small documentary “The Urban Tiger Volunteers of Bhopal” has been produced by fellows of Greenhub Foundation i.e. Choulesh Chahane & Akash Envy under the guidance of DFO Bhopal Mr Alok Pathak. The documentary was officially released in Greenhub Festival 2024.



Figure 32: Screening of Documentary "The Urban Tiger Volunteers of Bhopal"



Figure 33: Tiger Day Awareness Program in Indore

- Capacity Building Program for field staff of Narsingharh WLS:**
 8 beat guards and 20 daily-wagers field staff participated in the field training under the supervision of DFO Mr Veni Prasad and SDO Mr Dinesh Yadav.



Figure 34: Field training to staff of Narsinghgarh WLS (August 2024)

6 LIST OF VOLUNTEERS

Currently, 10 active volunteers are working in different capacities and different site monitoring. Prerna and Nishant work as co-ordinators collecting data from volunteers and submitting it to DP Srivastava. Post Monsoon Jhiri, Samardha, & Prempura will be also monitored.

Table 1: List of Volunteers

| S. No. | Participants | Profession | Area |
|--------|----------------------|--|--------------------|
| 1. | Prerna Sharma | Biologist (Coordinator) | Kerwa & Khari |
| 2. | Mangesh | Sports Faculty, JLU | Kaliasot |
| 3. | Ravi Kushwaha | Daily-wagers with Forest Department | Kerwa |
| 4. | Prakash | Daily-wagers with Forest Department | Nursery & Dam area |
| 5. | Kamlesh Gaur | Daily-wagers with FD (sub-coordinator) | Khari |
| 6. | Govind | Villager | Khari |
| 7. | Arjun | Villager | Khari-Anwala |
| 8. | Sarvan | Daily-wagers with Forest Department | Anwala |
| 9 | Balveer | Daily-wagers with Forest Department | Sevaniya Parihar |
| 10. | Suner | Daily-wagers with Forest Department | Charmandli |
| 11. | Nishant Singh | Biologist (Coordinator) | Samardha |
| 12. | Mangal | Daily-wagers with Forest Department | Samardha |
| 13. | Naresh | Daily-wagers with Forest Department | Prempura |
| 14. | Om Prakash | Nature Guide (sub-coordinator) | Jhiri |
| 15. | Ravi | Nature Guide | Baheda |

Due to infrequent accessibility of monsoon, and camera trap damage in a few areas 27 camera traps are being monitored in the area.

Table 2: Camera trap Distribution in the landscape

| S. No. | Zone | Number of Camera Traps | Remarks |
|--------|---------------------------|------------------------|---------------------|
| 1. | Kerwa-Kaliasot-Walmi | 05 | |
| 2. | Samardha-Premapura | 00 | |
| 3. | Anwala-Khari | 10 | |
| 4. | Jhiri-Sevaniya-Charmandli | 07 | |
| 5. | Bhanpur-Chichali | 05 | |
| 6. | Raisen | 30 | Data not shared yet |
| TOTAL | | 27 | |

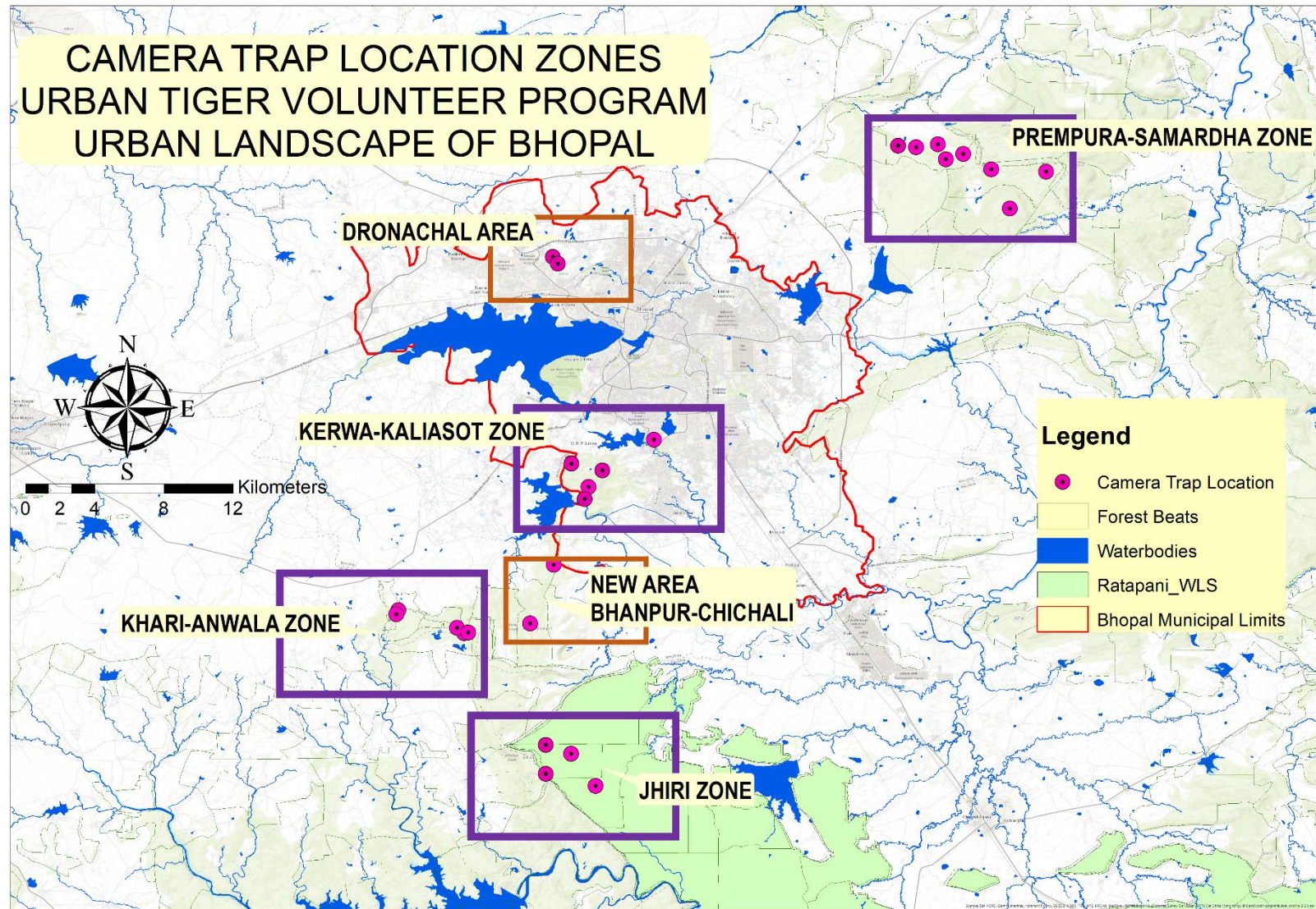


Figure 35: Map of camera trap locations and zones (Oct 2023-Mar 2024)

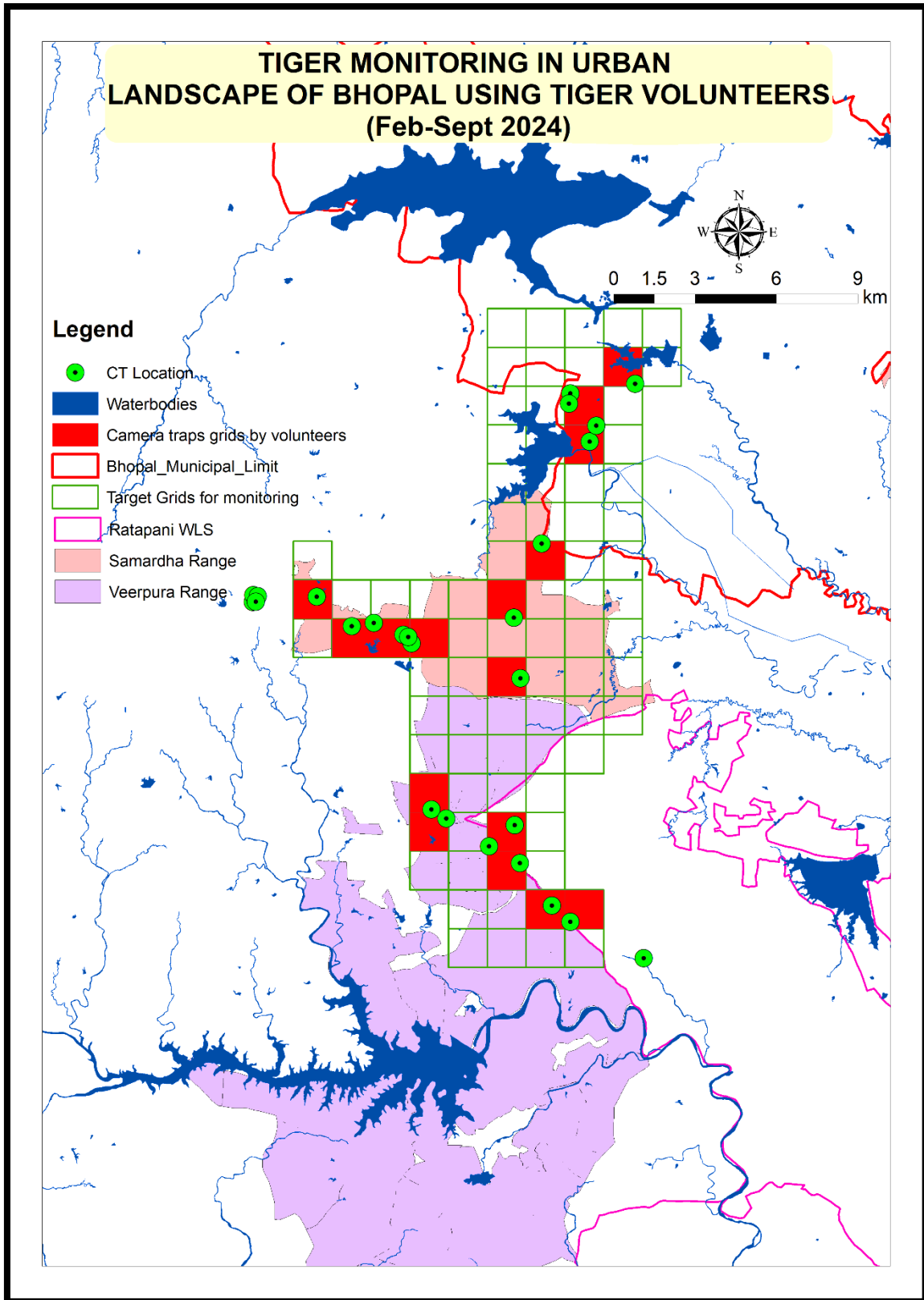


Figure 36: Map of camera trap locations and zones (March-September 2024)

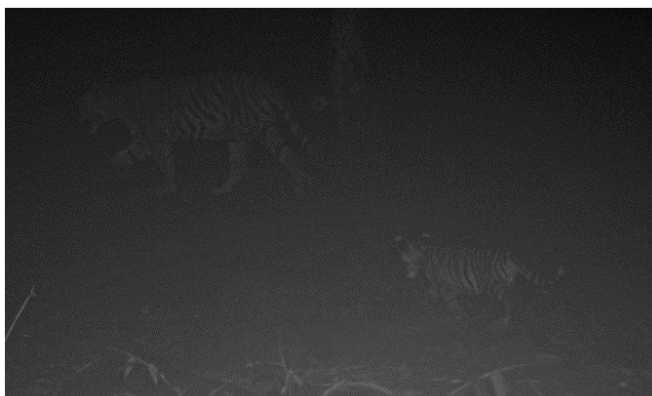
7 RESULTS

7.1 Kaliasot-Kerwa-Kolar Area (Bhopal-Ratapani Connecting Forest)

- *Total Area of connected patch: 130 sq. km (Focused camera trap area in Kerwa-city patch 10 sq. km, Bhanpura-chichali patch 15 sq km, Khari-Anwala patch 14 sq. km and Jhiri-Sevaniya-Charmandli Patch 14 sq km)*
- *Ranges: Samardha (Bhopal Division), Sehore & Veerpura (Sehore Division), Dahod (Ratapani WLS)*
- *Beat: Mendora, Anwala, Khari, Bhanpura, Chichali, Charmandli, Sevaniya Parihar and Jhiri*
- *Walmi and city area*
- **Major Observations 130 sq. Km**
 - *25 tigers including 17 cubs were observed in September 2023-Feb 2024*
 - *1 female (ST 21-423 and 2 cubs died, 2 cubs rescued and relocated to Kanha) (Figure 26)*

Kerwa-Kaliasot-Walmi Zone (10 sq. km)

- *5 camera traps are established on the edges from where tigers enter into city and vica-versa.*
- *6 adult tigers are using the area (BT123 female, BT-1234, BT 1235, 1236, 1237 & 1238) and new cub of TT123 has been observed*



T123 with new cubs (July 2024)



T123 Female
WALMI, Kerwa, Kaliasot, Chichali



T1235 Male
Cub of T123 (2022)
WALMI, Kerwa, Chichali (Bhopal), Khari
(Sehore)



T1236 Male
Cub of T123 (2022)
WALMI, Kerwa, Chichali (Bhopal), Khari
(Sehore)



T1237 Male
Cub of T123 (2022)
Kerwa, Chichali (Bhopal), WALMI



T1238 Male
Cub of T123 (2022)
Kerwa, Chichali (Bhopal), WALMI



T123-4 Dominant Male
Cub of T123 (2020)
Kerwa, Walmi, Bhanpur, Chichali,
Anwala,(Bhopal) &
Sevaniya Parihar, Khari (Sehore)

Figure 37: Tigers using Bhopal city-WALMI-Kaliasot-Kerwa

Chichali-Bhanpur Zone (12 sq.km)

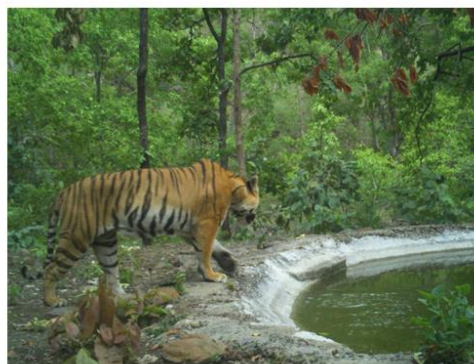
- 5 camera traps are established on the trail and waterhole.
- Overlapping territory area of tigers (BT123 female, BT-1234, BT 1235, 1236, 1237 & 1238) and (ST 21-322, ST 3221, ST 3222, ST 3223) has been observed

Jhiri-Veerpura zone (12 Sq. Km)

- Currently 7 camera traps were provided to the team
- Camera traps are monitoring trails and water hole
- 2 adult male tigers, 1 female with three cubs (RT 18, RT 24, RT 19, RT 19-1, RT 19-2, RT-3) have been recorded using the area



ST7/RT18 Male
Sevaniya Parihar (Sehore) and Jhiri (Dahod)



RT 24
Dominant Male in Dahod Range & Veerpura
Range
Sevaniya Parihar, Khari
Jhiri, Karmai, Ratapani WLS (2022)



ST-5/RT19 Female with cubs
Jhiri (Dahod) and Sevaniya Parihar (Veerpura)



RT19-1
Cub of RT 19
Jhiri (Dahod) and Sevaniya Parihar (Veerpura)



RT19-2
Cub of RT 19
Jhiri (Dahod) and Sevaniya Parihar (Veerpura)



RT19-3
Cub of RT 19
Jhiri (Dahod) and Sevaniya Parihar (Veerpura)



ST21-423 Female & 2 cubs Died
2 cubs rescued and relocated to Kanha
May 2024

Figure 38: Tigers using Jhiri-Veerpura area

Khari-Anwala zone (14 sq. km)

- Currently 10 camera traps were provided to the team
- Camera traps are monitoring trails and edge of a private property
- 2 adult tigers (BT322 Female & BT 123-4 Male) and 3 cubs (BT 322-1, 322-2, & 322-3) have been recorded using the area
- Earlier Kamlesh and his team has observed Female tigress with an injury and recent monitoring photograph is stating its wellbeing and better raising of cubs



Figure 39: New floater male in Khari (March 2024)



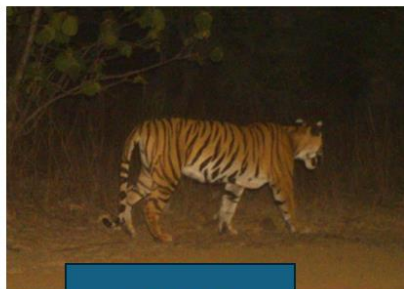
RT 24
Dominant Male in Dahod Range & Veerpura
Range
Sevaniya Parihar, Khari
Jhiri, Karmai, Ratapani WLS (2022)



ST 21-322 Female
Khari (Sehore) and Anwala (Bhopal)



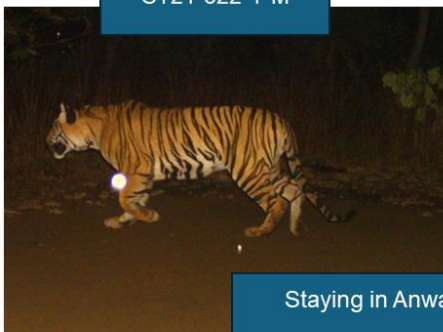
ST21-322-1 M



ST21-322-2



ST21-322-3



Staying in Anwala, Bhanpur (Bhopal) and Khari, Sevaniya Parihar (Sehore)

Figure 40: Tigers using Khari-Anwala Zone

7.2 Raisen Division (April-June 2024)

6 individual tigers have been recorded apart from various wildlife species sharing space with Local communities.

- 1 floater male NT1 (Indore-Raisen)
- 1 Resident male BT-8
- 4 Females (RT 6, NRT1, NRT2, NRT3)



Figure 41: NT1 Male (problematic individual) right flank and left flank



Figure 42: BT 8 Male having territory in Samardha, Bhopal to Hirankheda, Raisen



Figure 43: RT 6 Female having territory in Chilwaha and Raisen



Figure 44: NRT 1 Female left flank



Figure 45: NRT 1 Female right flank (need confirmation)



Figure 46: NRT 2 Female Left flank



Figure 47: NRT 2 Female Right flank (need confirmation)



Figure 48: NRT 3 Female Right flank



Figure 49: RT 6 Female and NT 1 Male seen together



Figure 50: Leopard with cubs



Figure 51: Honey Badger



Figure 52: Rusty spotted Cat



Figure 53: Sloth bear with cubs

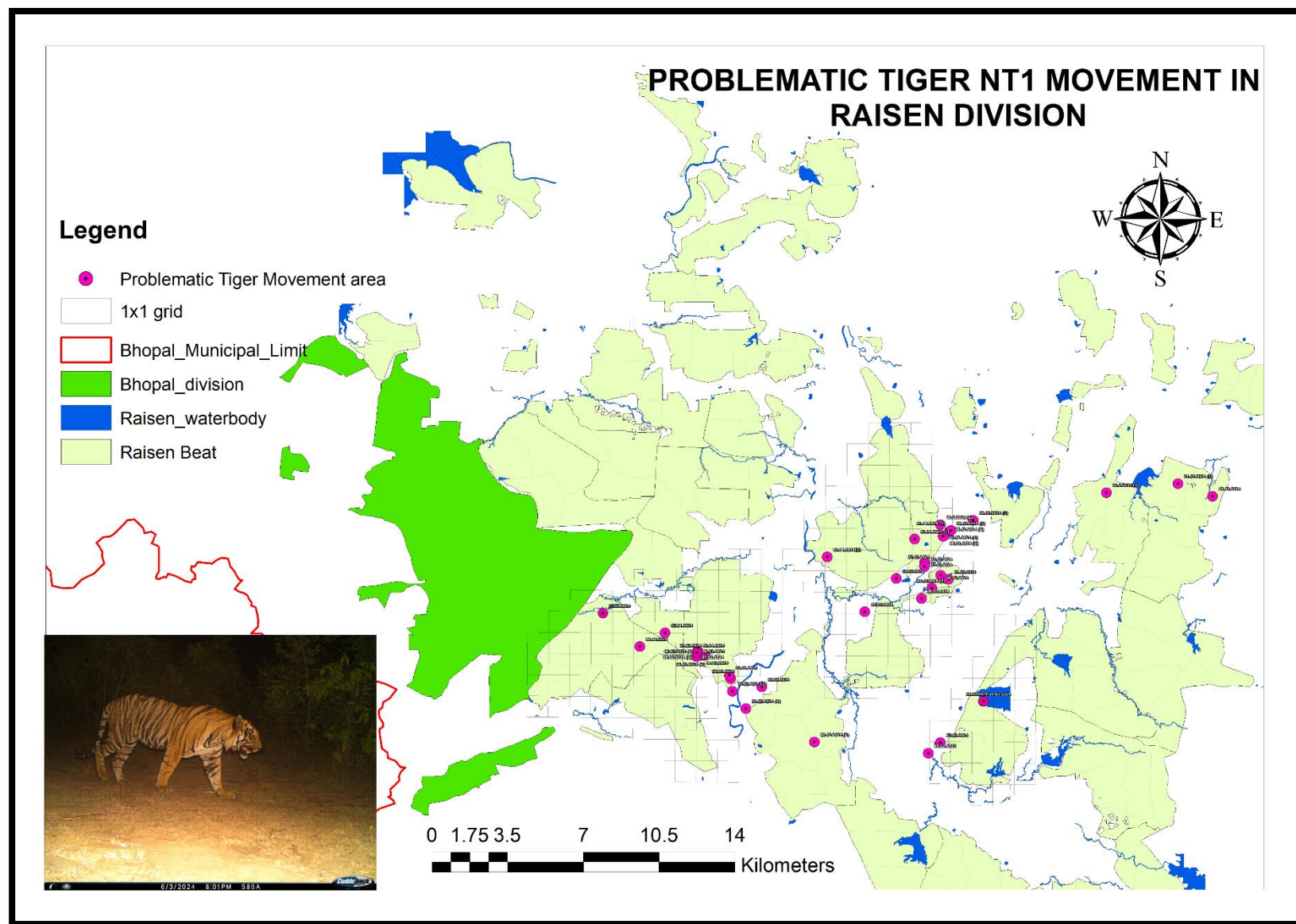


Figure 54: Movement of NT1 in Raisen division

8 RECOMMENDATIONS AND WAY FORWARD

- With current monitoring we have observed **21 + tigers** (3 males, 4 females and more than 14 cubs) **in less than 130 sq. km of area connecting Bhopal and Ratapani WLS, 10 tigers** (2 males, 1 transient male, 7 females) **in 150 sq. km of area of Samardha (Bhopal) and East-West Raisen Range.** Such a population in the small area indicates a high density of tigers and a good dynamic of Tiger Population in Bhopal Forest Circle, **Centralized Center with different stakeholders is** needed to monitor tigers and Human-Tiger Interactions in the Landscape.
- The Community-based conservation model initiated in Bhopal Division (T) should be replicated in all divisions of Bhopal Forest Circle. DFO, Raisen Division (T) have taken the lead in monitoring and recently observed 5 tigers in the east & west Raisen range while monitoring NT1 the problematic individual who traveled to Raisen city from Indore.
- 3 monthly meetings need to be scheduled with WWF-India and Tinsa Team
 - CCF, DFOs and SDOs level
 - Range Officer, Deputy Rangers, Beat Guards and Volunteers
- Sub-adult tigers are moving out of Bhopal & Sehore division but due to limited resources and monitoring, we are unable to track down the individuals. We recommend field monitoring other ranges sharing boundaries with the Samardha range of the Bhopal division where these tigers are moving.
- The Bhopal Circle landscape is over 3000 sq. km and home to more than 80 tigers and growing. We are just covering less than 150 sq.km. The area poses more potential for community-based conservation.
- The trained volunteers can be used as a Primary Response Team along with dedicated forest staff to monitor and recuse conflicting animals in human-dominated landscapes.
- The camera trap available with the forest department, our team, and other sources can be pooled together and used for grid-based monitoring, this will develop a central understanding of the landscape and movement of young cubs. The findings can be useful for management interventions.

- CSIR funds and other funding support should be promoted to establish more volunteers (Kits, training & Stipend) in all beats apart from forest staff in parts of Bhopal Forest Circle and develop a central Tiger cell.
- Following All India Tiger Estimation Protocols on an annual basis is needed for a proper understanding of population dynamics.
- Developing an understanding on prey-base dynamics and prey-consumption by tigers using Scats is needed.
- Radio-collaring resident tigers in city limits and young cubs can open spatiotemporal space-use by tigers as well as dispersal routes.
- To manage the landscape and tiger population in Bhopal Forest Circle, **a specialized and Centralized cell “Tiger Cell”** is needed to monitor tigers and Human-Tiger Interactions in the dynamic urban landscape of Bhopal.





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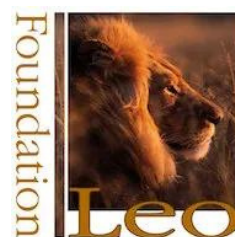


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