

4TH CHAROTAR CROCODILE COUNT

-Counting Crocodiles for Conservation

7th-8th January 2017

Organised by
Voluntary Nature Conservancy
(www.vncindia.org)



Our Supporters



The Duleep Matthai
Nature Conservation Trust



Voluntary Nature Conservancy

Voluntary Nature Conservancy (VNC), also known as Vidyanagar Nature Club (registered as Public Charitable Trust No: E/2659/Anand), is one of the leading grass root NGOs working for the cause of environment awareness and protection in Gujarat. Located in Vallabh Vidyanagar town of Charotar region, VNC has been active at grass-root level since its inception in 1988, nurturing nature for a better future. VNC stands tall due to a committed team of volunteers who are the back bone of the activities and hence it's aptly gets its name as 'Voluntary Nature Conservancy'. The team at VNC is dedicated to conserve environment and make sustainable efforts towards the same. VNC has been actively involved in nature conservation through education and awareness. Its working areas are inclusive of community based environmental programs, education programs at grass root levels and schools, close to nature hobby development efforts and programs for reducing pollution, eco-friendly drives, tree plantation programs and much more. VNC has successfully carried out campaigns to save the Whale shark (in collaborations with Wildlife Trust of India) and vulture in Gujarat. Recent initiatives include carnivore conservation in Kutch, mugger conservation in Gujarat and human-wildlife conflict mitigation. Today VNC is accredited by GEF, (Global Environment Facility) and is a member of GEA (Global Environmental Action) & SAYEN (South Asia Youth & Environment Network). VNC is also registered Non Profit foundation as Voluntary Nature Conservancy in USA.

What's Charotar Crocodile Count?

One of the main objectives of Voluntary Nature Conservancy's (VNC) project 'Conservation of Crocodiles in Charotar' is to create awareness among the communities, both at local and national level. As a result, "Charotar Crocodile Count" was born in 2013. This program was designed to involve people from various walks of life to come together for the conservation of this ancient and beautiful species. This voluntary based initiative while helping us to gain a better understanding of crocodile's status and distribution across the Charotar region also provides an opportunity to city dwellers an onsite experience of observing crocodiles in their natural habitat, meet people who live alongside crocodiles and contribute to their conservation. In December 2013, VNC conducted its first volunteer based crocodile count in Charotar and enlisted volunteers across India to monitor crocodiles. This program is first of its kind in Gujarat and it has generated a very useful data which has been used by forest managers, reserchers and conservations organistions alike.

The 4th Charotar Crocodile Count was conducted on 7th-8th January 2017, and was attended by 80 participants.

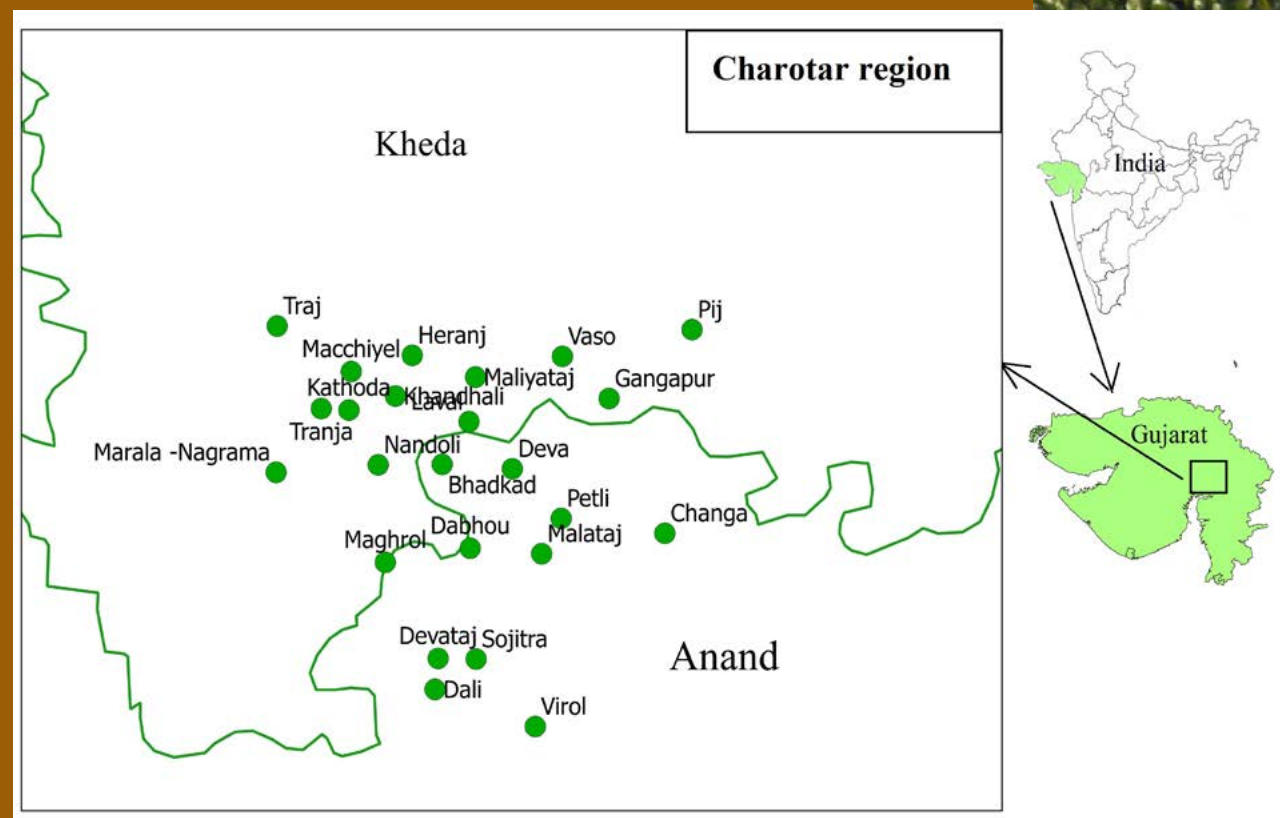
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Where's Charotar?

In Gujarati, the word “Charotar or Charutar” means a pot full of gold. This was supposedly coined because of the agricultural fertility of the area. Charotar consists of parts two districts namely Anand and Kheda. It is located between the two major rivers; Sabarmati on the western side and Mahisagar on the eastern in central Gujarat. Because of the unique mixture of landscape feature, this region harbors varieties of birds, both local and migratory. This region also hosts the highest densities of Sarus crane (*Grus antigone*) in the state. Although Charotar region do not have forested areas, they have highest density of urban trees in the state, and is considered green bowl of Gujarat.



Why Charotar is Important?

The studies conducted so far reveal that the wetlands of Charotar host a very significant population of mugger crocodiles. Other places in India also hold significant numbers of this species, but what's intriguing is that this population lives amongst the humans, and vice versa, without much conflicts, setting a fine example of what we know as” co-existence”. Large areas in this region are irrigated by Mahi Irrigation Project, and therefore most of the water bodies are interlinked by an intensive irrigation canal network. This extensive network of canal acts as travelling routes for the dispersing crocodiles, and thus favours genetic exchange. These wetlands serve as a lifeline for agriculture in and around the landscape.

Why count crocs in Charotar?

The count is not just an adventure walkout to count muggers but has a bigger goal of creating awareness and gathering public support for the conservation of this prehistoric species outside protected area. We expect to draw attention of national and global conservation community towards this place which represents unique example of co-existence between humans and crocodiles. Also, the event was to gain insight of the region and to learn from the villagers, how they coexist with crocodiles.

“If you can count it, you can manage it”. Counting wildlife and being able to compare data between years can help with the early detection of problems. The information gathered guides the management initiatives and enables the authorities to make informed responses to development activities. Even if it is an estimate, as long as it is done the same way each time, you can build up a picture or trend of what is happening to that species. So to help conserve this majestic species, we need to know how many and where they are? And that we do through Charotar Crocodile Count. This event represents the commitment by nature lovers to contribute towards the conservation of mugger crocodiles in a human dominated landscape.

How Did You Count Crocodiles ?

VNC used an approach called “Citizen Science” to count crocodiles in Charotar. Citizen Science is an exciting, multifaceted way to bring people from all walks of life together for research and conservation. It is where the public volunteers time to assist scientists in their research. In other word, citizens become “Citizentists” (citizen+scientists). Citizentists are a kind of large research team, gathering data on a scale that would be hard to achieve otherwise. For crocodile counts, a team of 5-12 volunteer, depending on the size of the water body to be surveyed, is allocated to various villages. All volunteers count the crocodiles in their assigned places on the same day and between the same time periods (10:00 to 14:00 hours). These surveys are the primary method we use for monitoring trends in the crocodiles in Charotar.



4th Charotar Crocodile Count 2017

80 Participants 2 Days 26 Villages
140 Direct Sightings (Day Count)
163 Crocodiles (Including Night Count)

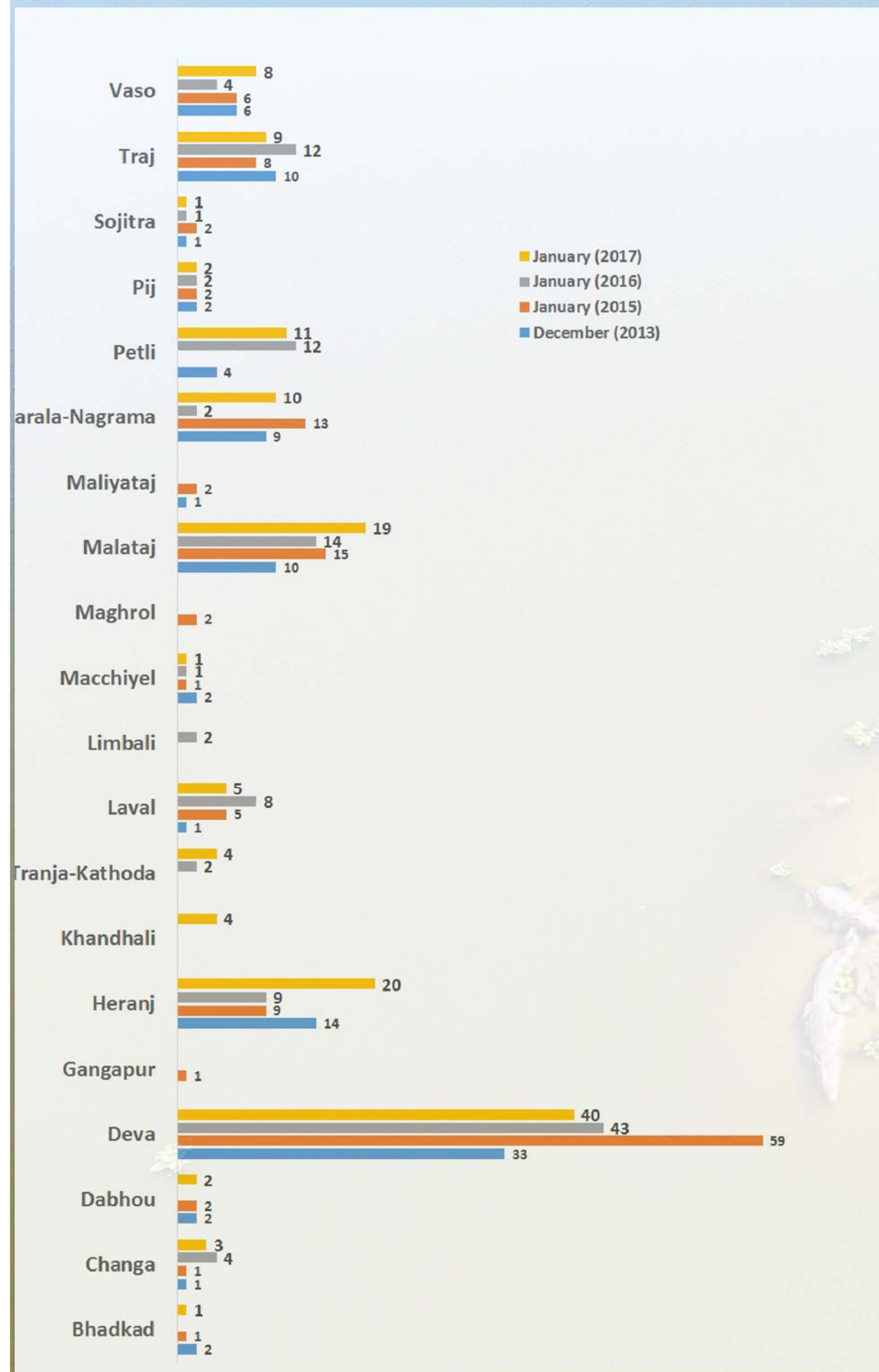
Dr. Raju Vyas & **Soham Mukherjee** honoured the event with their presence, and sharing their knowledge and experience.



Dr. Raju Vyas, (Vice Chair, IUCN-SSC Crocodile Specialist Group, South Asia & Iran) a well-known herpetologist of India, who has been studying crocodiles in Gujarat for more than three decades, explained the crocodilian biology and methods of monitoring crocodiles.



Soham Mukherjee, who has been known for his efforts to understand crocodile intelligence through operant conditioning at Madras Crocodile Bank Trust, shared his experiences of training different Crocodylian species, as well as studying Gharials in Chambal through telemetry.



How Many Crocs Did You Count?

VNC's earlier intensive surveys indicates that nearly 180-230 mugger crocodile survive in the wetlands of Charotar. This time, during the two day counting on 7th -8th January 2017, crocodile count data were collected from 26 sites resulting in 140 direct sightings of crocodiles. Most of the crocodile sightings (80%) came from six sites, namely from Deva, Heranj, Traj, Malataj, Marala-Naghrama and Petli village alone. The graph on the left shows the number of crocodiles directly sighted (Day counts only) during the present (2017) and earlier Crocodile Counts (2013, 2015, 2016).



This time the crocodile sightings seemed to be affected by the high water level and increase in vegetation in many wetlands surveyed. As a result crocodiles sightings were much lesser in some of the wetlands, compared to earlier surveys. That's why a Night Count was also carried in some wetlands on 9th-10th January 2017. The night counts added 23 more individuals from Marala-Naghrama (15) pond and Traj (8), which could not be detected during the day counting, thus totalling the total number of crocodiles sighted to be 163 individuals.

WAY FORWARD..

This survey isn't conclusive. An intensive and long term monitoring is necessary to come to some conclusion with respect to population trend. So what's needed next? Clearly, we need information from regular systematic field surveys; but in the meantime, a very close watch on crocodiles is required in their areas. This is where the information from nature enthusiasts of all stripes can be incredibly useful! This way we work together to build long-term information about crocodiles.

We all need to work together to keep this species surviving in these areas. Spreading awareness to keep this animal safe would be the next actions we all should be practicing. Also, we need to reach out to newer communities of people to participate in this initiative so that they too experience the beauty of this ancient, prehistoric and majestic creature and ultimately contribute to protect this species.

A Glimpse of... 4th Charotar Crocodile Count



Participants interacting with Soham Mukerjee



Participants counting crocodiles (L, R)



Dr Raju Vyas, (L) & Soham Mukerjee (R) sharing thier knowledge and experience



Dr. Dhaval Patel (Collector, Anand District) and his family actively participated in the Charotar Crocodile Count (L,R)



Participants interacting with each other over the breakfast (L,R)



Particpnts sharing their experience during concluding session (L,R)



Participants in the field (L, R)



Dr. Dhaval Patel distributing cerificates to the participants (L,R)





Sumil Adesara

Thank you so much to everyone involved . We are indebted to you for your unfailing help in making this event a grand success. We couldn't have done this without you.
Please send your cooments, questions or suggestions to VNC's Crocodile Reserch & Conservation Team at info@vncindia.org or call +91-9898142170

TIME TO THANK...

First of all, we thank all the participants of the 4th Charotar Crocodile Count-2017 who gave two days of hard work to make this event possible: Abhilasha Sharma, Abhinav Gadikar, Akash Trivedi, Amit Vaghasiya, Apurva Mahida, Archi Sehgal, Arjun Vithalani, Ashish Chaudhary, Ashish Chavda, Bansi Jani, Bharat Mehta, Bhautik Dhudhatra, Bijal Gandhi, Chitra Patel, Dhyan Trivedi, Dipak Chauhan, Dr. Deven Chauhan, Dr. Sudhir Patel, Drashti Patel, Elesh Mistry, Fahim Vohra, Gaurav Devnath, Girish Patel, Haresh Pandya, Harshal Purohit, Harshil Patel, Hina Soni, Hiren Pagi, Ishani Dave, Jay Dholakia, Jay Suthar, Jilesh Patel, Kaushik Shelat, Keval Paliya, Khanjan Patel, Komal Jayswal, Krutarth Patel, Lakhan Kanara, Mahesh Patel, Mayur Variya, Meera Bhavsar, Mehul Patel, Merlina Keith, Milaunee Mehta, Mukesh Patel, Neel Talati, Neeraj Parmar, Nikhil Parekh, Nilesh Movle, Paras Pal, Pradhyuman Sindha, Praful Barad, Pranav Vaghasiya, Ravi Patel, Ravikumar Patel, Rhythm Niranjani, Riddhi Chokasi, Sakilahemad Alimiya, Salu Mesaria, Shravan Suthar, Shreyas Bhavsar, Shreyash Patel, Shubhangi Rathod, Umang Mistry, Vaibhav Naik, Varsha Shukla, Vicky Bind, Vinay Kumar, Vishwa Soni, Viral Vadodariya, Vishal Mistry, Vishalkumar Patel Yash Amin, Zankhna Patel. We thank them all.

We are grateful to Dr. Dhaval Patel, Collector, Anand District, and his family for active participation in the event and encouraging participants.

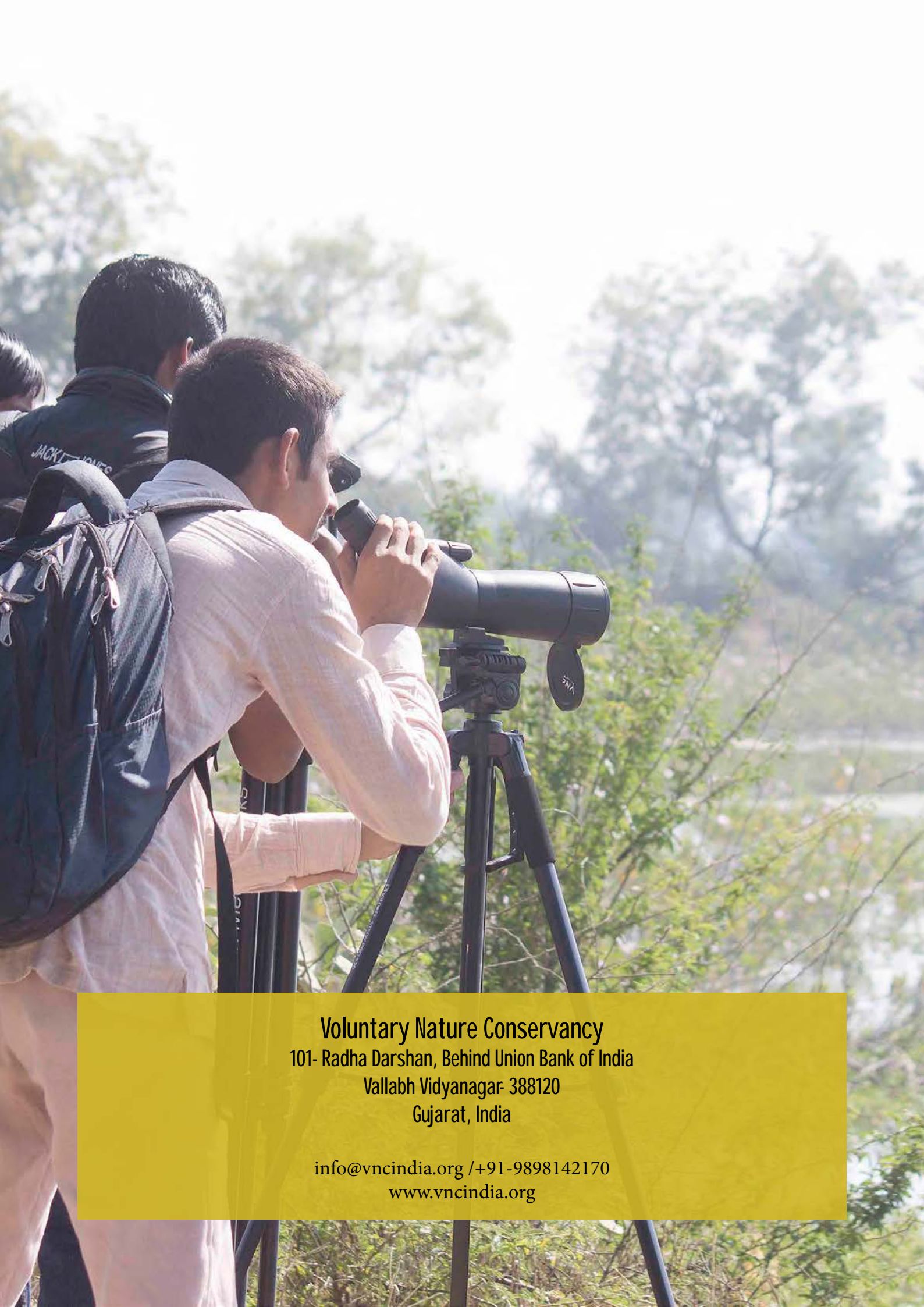
We heartily thank Dr. Raju Vyas and Soham Mukherjee for taking out their precious time to encourage, share their knowledge and experience with the participants. We are also thankful to Saurabh Desai, a well-known wildlife photographer and Co-Founder, 50mm Media Productions for participating and motivating the volunteers.

Rufford Small Grant Foundation (RSGF) has been our major supporter. From the initial funding that moved our project from a small grass roots project to a large research and conservation initiative on mugger crocodiles to another large project to mitigate crocodile-human conflict, RSGF has been always with us. To RSGF we are forever grateful! Further, Duleep Matthai Nature Conservation Trust and Idea wild also provided support to the project in the initial phase, which boosted the project to next level.

We are thankful to both organizations for supporting us. We can't thank enough Naja Foundation (www.naja.in), which has been an important collaborator in many of VNC's projects, and its support has been crucial to this event as well. We are grateful to the Gujarat Forest Department, who have been always supportive of our activities and have collaborated with us on many occasions.

Finally, we thank the villagers of Charotar region who have accepted this species as co-inhabitant, and are committed to supporting mugger conservation in Charotar.

KEEP CROC'ING.....



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