



Prerna Gupta is a natural history artist who focuses on Indian birds.

POWER LINES AND POWER BROKERS

The buzz generated by this campaign has boosted the morale of GIB conservationists and scientists, and placed pressure on those in power to make GIB conservation a priority. On December 20, 2018, the Principal Secretary of Rajasthan's Energy Department chaired a meeting on the matter in response to a notice issued by the Chief Wildlife Warden of the state to power agencies. The meeting was attended by members of the Rajasthan Forest Department, including the Chief Wildlife Warden, the Divisional Forest Officer of Jaipur, the Divisional Forest Officer of Jaisalmer, scientists from WII and representatives from local power agencies.

At a previous meeting held in 2016, power agencies had expressed their reluctance to place their cables underground due to the high cost involved. However, they had agreed to mark power lines with bird diverters. Despite this consensus, even these diluted measures were never implemented. At the December 20th meeting, the Principal Secretary of the Energy Department directed power agencies to immediately install diverters of appropriate quality and design on the risky power lines mapped by WII in the Thar Desert. He committed approximately 100 crore rupees to this endeavour towards GIB conservation, which will be borne by power agencies through the required legal process. The power agencies are now developing proposals for this with help from WII.

DO DI

On December 7, 2018, the Sanctuary Nature Foundation, in collaboration with Conservation India and The Corbett Foundation, launched an emergency campaign to save the critically endangered Great Indian Bustard (GIB). This iconic species is on the brink of extinction, with fewer than 150 individuals remaining in the wild. The most immediate threat to the survival of the GIB is collision with the overhead powerlines that cut across their

OR E!

Text by Cara Tejpal

grassland habitat. In fact, the Wildlife Institute of India (WII) estimates that a whopping 15 per cent of the global population of the GIB succumbs to powerline collisions every year!

Since we launched the campaign, over 10,000 people have signed the petition to India's Minister of Power, New and Renewable Energy. We have one simple demand – that powerlines in vulnerable sections of GIB habitat be placed safely underground and the rest be outfitted with bird diverters.



Mitul Patel is an Art Director and birding enthusiast with a love for photography and illustrations.

HALF MEASURES?

While installing diverters is cost effective, it's far from a foolproof solution. Diverters don't eliminate bird mortality by collision, they simply reduce mortality by 20 to 80 per cent depending on the area, species and device. Given the precarious status of the Great Indian Bustard, conservationists are recommending a more thoughtful and scientific three-pronged approach. Here's what we're asking for:

- The most risky sections of power lines in the Thar desert and Kutchh, which have already been identified, be placed underground on priority.
- The medium risk power lines be outfitted with bird diverters following a robust installation design as demonstrated by WII.
- That new wind turbines and power transmission lines be disallowed in priority Great Indian Bustard habitat in Thar and Kutchh.

In short, it would be a waste of time and energy to install bird diverters without also placing critical power lines underground. "The decision of marking power lines in the GIB habitats of the Thar is very important for the in-situ conservation of this critically endangered species, but it must be complemented by burying the most critical transmission lines for best effects," says Sutirtha Dutta of WII.

The status of the GIB is indicative of a larger ecological malaise – the negligence of grasslands. Delineated as revenue wastelands, India's grasslands are rapidly being destroyed, sold and 'developed', despite being rich wildlife habitats.



Sibya Rosalyn Narayan is a graphic designer and creative consultant.

WHAT'S A BIRD DIVERTER?

A bird diverter is a small device that can be clamped onto power lines to make them visible to birds so that they can avoid collision. There are a number of different diverters available in the market with varying degrees of efficacy.

GIB GREEN GRAM

Gujarat's Kutchh region has the world's second largest population of GIBs, following Rajasthan. Here, our campaign partner, The Corbett Foundation, has been implementing a unique initiative to involve local communities with bustard conservation efforts. Keeping in mind the deleterious effects of pesticides on grassland species like the GIB, TCF convinced two farmers whose land falls in the distribution range of GIBs to switch to organic farming. They then helped market the 750 kg. of *moong* (green gram) that was harvested at a premium rate. The two farmers were able to almost double their profits, while keeping their land safe for the GIB to forage in. Following the success of this pilot project, TCF with support from the Gujarat Forest Department and the Kirloskar Group conducted training on organic farming methods for 50 farmers in the region. "Using social media, we succeeded in selling the 750 kg. of *moong* in a mere two hours. All the money was deposited directly into the farmers' bank account. Many other farmers have now reached out to join this 'farmers for GIB conservation programme'. In addition to *moong*, we plan to grow *bajra*, sesame, groundnut

and mustard in the near future," says Devesh Gadhavi, Deputy Director of The Corbett Foundation.

GRASSLANDS NOT WASTELANDS

The status of the GIB is indicative of a larger ecological malaise – the negligence of grasslands. Delineated as revenue wastelands, India's grasslands are rapidly being destroyed, sold and 'developed', despite being rich wildlife habitats. While the GIB steals the limelight, other forgotten bustard species such as the endangered Lesser Florican and vulnerable Macqueen's Bustard are also grassland dependent and their numbers are now dwindling. Along with the threat of sale and commercialisation, misguided management plans have involved the conversion of grasslands into tree plantations. It's crucial that our collective understanding of the word 'wilderness' evolve to include habitats beyond forests and that our policies keep pace with this. Unless this is done, grasslands and grassland specialist species will have little hope of long-term survival.

SILVER LININGS

An incredible wave of support for the GIB and outrage at political inaction to save the species has characterised this ongoing campaign. Today, those who hadn't even heard of the existence of such a species until a few weeks ago, are calling on political leaders to commit to its conservation. Celebrities like actress Dia Mirza, actor Dulquer Salmaan, musician Anushka Manchanda and former cricketer Anil Kumble have taken the cause to millions, journalists have written impactful stories on the GIB at both regional and national levels and the conservation and wildlife photography community has knit together in a significant show of solidarity. Kids for Tigers, led by inspirational educator Madhu Bhatnagar, have taken up the cause, sending dozens of postcards to the Chief Ministers of Gujarat and Rajasthan requesting them to save the Great Indian Bustard. We still can't guarantee that the species will be saved, but



An advertisement for The Corbett Foundation's GIB Green Gram initiative that aims to encourage farmers within the vulnerable GIB habitat to switch to organic farming and benefit from it.

We have one simple demand – that powerlines in vulnerable sections of GIB habitat be placed safely underground and the rest be outfitted with bird diverters.

we believe that together we have pricked the nation's conscience when it comes to the disappearance of this flagship bird of the grasslands. For as long as the GIB is threatened by overhead powerlines, we will campaign for these to be placed underground.

MoEFCC Steps Up

On January 7, 2019, exactly a month after our collaborative campaign to save the Great Indian Bustard was launched, India's Ministry of Environment, Forest and Climate Change sent urgent communications in the form of Demi Official (D.O.) letters to Rajasthan, Gujarat and the Ministries of Power, and New and Renewable Energy on the issue of GIB collisions with powerlines. The letters were sent by the Secretary of the Ministry of Environment C. K. Mishra, and made a request for cooperation to implement mitigation measures including the undergrounding of power transmission lines in GIB habitats. In his letter to the two Ministries, Shri Mishra wrote that *"...attempts made by the (Environment) Ministry for saving the GIB from its extinction will go in vain unless active support from your Ministry is received"*. Such a communication is a great step toward GIB conservation, but will be worthless if the relevant states and ministries do not respond and act accordingly. The proof, as they say, will be in the pudding... or in this case, the undergrounding of the most risky sections of powerlines in GIB habitats.

Rajasthan HC Issues Notice

The Rajasthan High Court has issued a notice to the central and state government regarding the 22 crore rupees that were sanctioned for the protection of the Great Indian Bustard two years ago. According to news reports, this fund has been gathering dust ever since, though experts retort that it has been used for in situ conservation. It should also be noted that in 2016, after years of discussion, the central

government took the decision to initiate a captive breeding project for the GIB. However, despite the critical status of the species, the allocation of funds and discussions between relevant authorities, not a brick has been laid toward this end. Such captive breeding centres, where GIB chicks are hatched, reared and released into the wild, remain a distant dream.

International Support

Amongst the thousands of people who have voiced concern for the GIB is Carol Inskipp, author of innumerable field guides and considered one of the leading experts on the birds of South Asia. Inskipp was introduced to the campaign by birder and author Bikram Grewal. In an independent email to India's Minister of Power, Inskipp wrote "Conserving this magnificent, beautiful and iconic species should surely be a national pride."



Rough sketches of Great Indian Bustard behaviour made by the late Carl D'Silva in 1986. Carl was India's premier wildlife artist and illustrated several major field guides including Dr. Salim Ali's Book of Indian Birds. He is fondly remembered for bringing about awareness on wildlife and conservation issues.

The artworks on these pages were created by campaign supporters from across India and shared with us on social media!



A self-described conservation generalist who lends her skills to help confront the gamut of conservation challenges in India, Cara Tejpal heads Sanctuary's Mud on Boots Project.



Laila Vazirali is an artist and entrepreneur. She currently works with watercolours and is inspired by the balance between humans and the rest of the natural world.

Vinayak Mane is a surgeon from Pune, with an interest in nature, photography and art.

TWO YEARS WITH MUD ON OUR BOOTS

BY CARA TEJPAL

When the Sanctuary Nature Foundation (see page 38) launched the Mud on Boots Project in January 2017, I was several shades more naive than I am today. Perhaps that was for the better, because I'm quite certain that if I had an inkling of the enormous amount of commitment, coordination and grit that the project would grow to demand from our small team, I would never have suggested it in the first place. But as it were, I was clueless, optimistic and entirely zealous about creating a project that could epitomise the Sanctuary philosophy of handing megaphone and resources to the "little guys" doing big things for wildlife conservation.

It would be untruthful of me to say that the Mud on Boots Project is an unerring success. We have faltered time and again – dropped the ball on campaigns, overestimated our influence, overpromised our reach, grown disenchanted with government bureaucracy, been short of funds, tardy with donor updates, lazy with paperwork, frustrated with the snail's pace of positive change, and at times lost focus on our objectives. Yet, we have come through in many other ways. We have courted and embraced collaborations with a host of organisations, doggedly pursued ambitious opportunities for our Project Leaders, ensured that grant money always reached the right place at the right time, kept our promise of flexibility, unveiled invisible conservation issues to the public, remained deeply reverent of science, and always corrected our course when led astray.

Over the past two years, 17 Project Leaders and two small grantees from nine different states in India have directly received almost 50 lakh rupees to continue and grow their wildlife conservation work. Not to mention media coverage, capacity building workshops, exposure trips, and advocacy support. This February, 13 of these grassroots conservationists "graduated" from the Mud on Boots Project, and five new Project Leaders were welcomed to our family. Here are key updates from our ranks:



PRADIP KRISHEN

NEW PROJECT LEADERS!

SHIV KUMAR
HIMACHAL PRADESH

Nominated by: Munmun Dhalaria, National Geographic Explorer

A forest guard who works in the remote Lahaul Forest Division, Shiv has been protecting and documenting the incredible biodiversity of this region for the past 14 years. Shiv is interested in human-wildlife co-existence and conflict mitigation, particularly between snow leopards, brown bears and the local community in Spiti. With Sanctuary's support he will expand his outreach and community awareness work on these issues.



SUNIL HARSANA
HARYANA

Nominated by: Dipani Sutaria, Independent Ecologist

The sole flora conservationist on our roll call, Sunil is a resident of the sacred Mangar forest in Haryana. He is working to enable the long-term protection of this vulnerable forest, generating information about the biodiversity of the area and increasing appreciation for its ecological value amongst urban and rural youth!



MALHAR INDULKAR
MAHARASHTRA

Nominated by: Nityata River Otter Conservancy

Through relentless documentation, community outreach workshops and persistent campaigning against unsustainable forms of fishing such as dynamite and bleach fishing, 25-year-old Malhar is working to protect the smooth-coated otters of the Tillari river along the Maharashtra-Karnataka border. His focus on this flagship river species, has a beneficial cascade effect on freshwater ecosystems.



BHUVANESHWARA H.C.
KARNATAKA

Nominated by: Dr. Meghna Krishnadas, Yale School of Forestry and Environmental Studies

The son of a Range Forest Officer, Bhuvan is working to maintain the ecological integrity of the Bisle-Charmadi landscape, which provides the only link between the Kudremukha Tiger Reserve and Pushpagiri Wildlife Sanctuary. Bhuvan focuses on four umbrella species: the small-clawed otter as a flagship for conserving hill streams, the Nilgiri marten as a basis to maintain canopy integrity and forest structure, the lion-tailed macaque to conserve tree diversity and structural connectivity, and Malabar Pied Hornbills (MPH) to conserve fruiting trees as well as old and tall trees in plantations and farms.



FIELD TRIPS FOR URAS AND SAJAL

In early March, two "graduating" Project Leaders went on two very different and very impactful field trips.

Uras Khan, a goatherd from Rajasthan who is interested in natural history and conservation tourism, found his way to the Ranthambhore Tiger Reserve. Here, he spent a week shadowing Sanctuary Wildlife Service Awardee 2018 Govardhan Meena and learning from him how to conduct successful community outreach and sensitisation workshops on wildlife conservation.

From Chhattisgarh, social and environmental activist Sajal Madhu made his way to Valparai, Tamil Nadu, to spend a few days with scientists from the Nature Conservation Foundation, learn about their successful human-elephant conflict mitigation projects, and explore steps that he can implement back home in Chhattisgarh where human-elephant conflict has reached the boiling point. Though Sajal's term with the Mud on Boots Project was to end in February 2019, we have taken the decision to continue our formal association with him for another year.



LEFT Project Leader Uras Khan clicks a selfie with Govardhan Meena and a group of school children during his visit to Sawai Madhopur.

RIGHT In Valparai, Project Leader Sajal Madhu learnt about human-elephant conflict mitigation strategies from scientists of the Nature Conservation Foundation.

NATURALIST TRAINING FOR IDU MISHMI YOUTH

In the first week of March, we collaborated with Dr. Sahil Nijhawan (see page 24) to facilitate a naturalist training workshop in Roing, Arunachal Pradesh, for 10 youths from the *Idu Mishmi* tribe. Sanctuary's Head of Natural History, Science and Photography Dr. Parvish Pandya, and ornithologist Dr. Asad Rahmani led the workshop.

The Dibang valley is a magnet for birders, who come here from across the world to tick "lifers" off their list. However, most such travelers bring bird guides from



SHIV KUMAR



This stunning snow leopard image taken by Project Leader Shiv Kumar is one of the first clear images of this elusive cat from the Lahaul Forest Division that was not obtained through a camera trap. Shiv spent eight years in pursuit of such an opportunity.

outside the region to lead their trips. This workshop is one in a series of capacity building exercises to train participants to be competent nature guides and become stakeholders in nature tourism in their home region.

OLD EQUIPMENT, NEW OWNERS

We're finding deserving new homes for your old equipment! Over the past few weeks, individuals from Delhi, Mumbai, Goa and Bengaluru have donated their old (but in good shape) binoculars and cameras to the Mud on Boots Project. Each piece of equipment is serviced and re-homed with a grassroots conservationist who can make the most of it! A big thank you to Meesha Holley, Tarini Pal, Pankaj Singh, Karan Tejpal, Sachin Gowda, Vamshi Bandi, Anuroop Krishnan, Sara Mahdi,

Vydhehi Kadur, Vaidyanathan R. and Arpit Parekh for their donations.

GIB CAMPAIGN UPDATE

Sanctuary has been spearheading a public awareness campaign for the conservation of the critically endangered Great Indian Bustard in collaboration with The Corbett Foundation and Conservation India. The campaign was launched on December 7, 2018 and has given rise to an unprecedented wave of public support for the conservation of the species. It has also spurred action at various levels, as outlined in the last issue of Sanctuary.

Since then, the central government has announced the Great Indian Bustard as the mascot for the 13th UN Convention on the Conservation of Migratory

CARA TEJPAL



LEFT *Fledgling birdwatchers and guides from the Idu Mishmi community practice their bird identification skills at the beautiful Jiya grassland on the outskirts of Roing town, Arunachal Pradesh.*

GOBIND SAGAR BHARDWAJ



RIGHT *The protection of grasslands is crucial to the survival of not just the GIB but also other specialist species such as the endangered Lesser Florican.*

"The Great Indian Bustard is the 'pride of India', the only bird species that has 'Great Indian' in its name. It will be very shameful for all of us if India fails to save this species from extinction, especially when there has been so much scientific progress." – Devesh Gadhvi, Deputy Director, The Corbett Foundation (Kutchh Division)

Species, which is scheduled to be held in Gujarat in February 2020.

On February 21, 2019, the Wildlife Institute of India hosted a "Sensitisation Workshop on GIB Conservation" at the WWF-India auditorium in New Delhi, in partnership with a number of organisations including the Sanctuary Nature Foundation. All key conservation concerns regarding the GIB were addressed at the workshop, with special focus on the need to mitigate threats posed by overhead powerlines and the importance of conservation breeding. The WII is expected to sign an MoU with the Houbara Breeding Centre in Abu Dhabi to kickstart the latter soon. The potential denotification of GIB sanctuaries from where GIBs have vanished was also brought up, and it was unanimously agreed that these must be safeguarded for other grassland species and, potentially, future reintroduction of GIBs.

On February 22, 2019, the Ministry of New & Renewable Energy (MNRE) issued a circular to wind farm operators and developers, the Secretary of the Ministry of Power, and the Principal Secretaries (Energy) of Rajasthan, Gujarat, Tamil Nadu, Maharashtra, Andhra Pradesh, Madhya Pradesh, Karnataka, and Telangana. The circular directs private wind farm operators and power transmission agencies to collaborate with relevant state governments and the Wildlife Institute of India to "identify critical power transmission lines and wind energy farms passing through the Great Indian Bustard (GIB) habitats in Rajasthan

and Gujarat..." and to "accordingly take up risk mitigation measures against bird hits like putting up bird diverters on the conductors, painting of vane tips of the wind turbine, etc." This is the first acknowledgment by the MNRE of the grave threat posed by power lines to the GIB since the launch of the campaign, and is a positive step towards addressing this issue. How quickly agencies and operators respond to the directive remains to be seen.

After receiving approval from the Rajasthan state government, WII has also started work to satellite tag four GIBs from the Desert National Park. The tags will allow scientists to monitor the birds and provide information on their movement.

Sadly, despite regular sighting of female birds, the sole male Great Indian Bustard in Kutchh, Gujarat has not been seen since September 2018. This particular male was one of three chicks that were born in 2016 at a site that had been painstakingly restored by the Forest Department. The Corbett Foundation had worked as the knowledge partner on this project. Its disappearance is a cause for concern, but scientists are hopeful that it may just have gone away in search of food as the monsoon failed last year. "If the male is alive, it will surely return to the lek area this monsoon," says Devesh Gadhvi of TCF, "If not, then possibly the GIB story will end in Gujarat unless some quick and special measures are taken by the government." 🐦



MALHAR INDULKAR

Project Leader Malhar Indulkar is working to protect the riverine habitat of smooth coated and small clawed otters along the Tillari and Terekhol rivers in Maharashtra, where they are threatened by unethical fishing practices, ignorance and pollution.

THE MUD ON BOOTS PROJECT

BY CARA TEJPAL

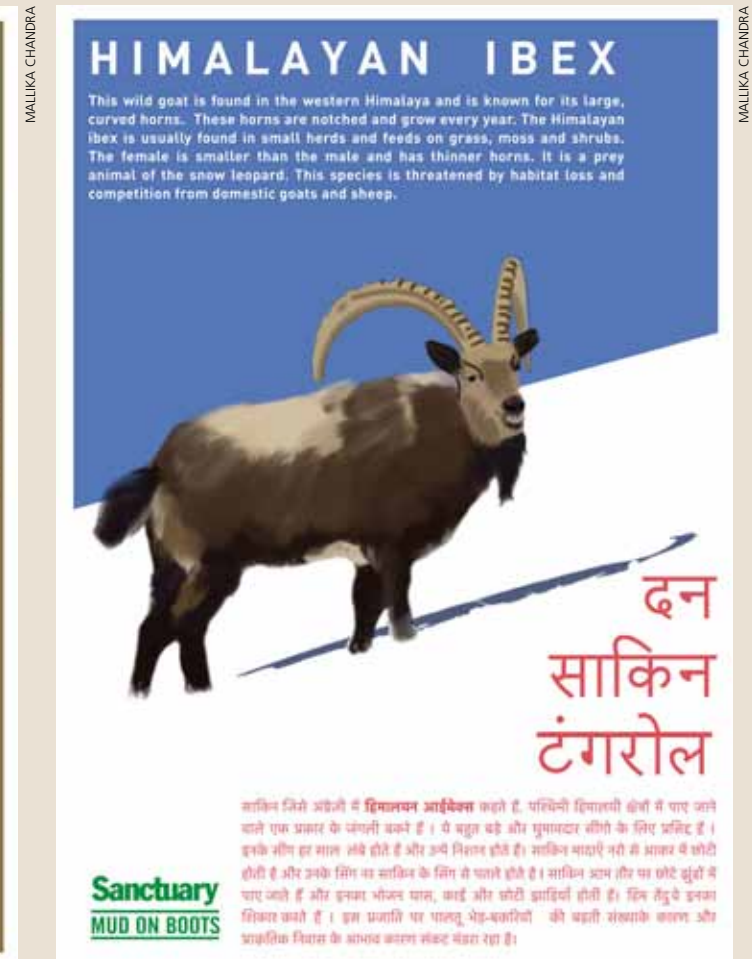
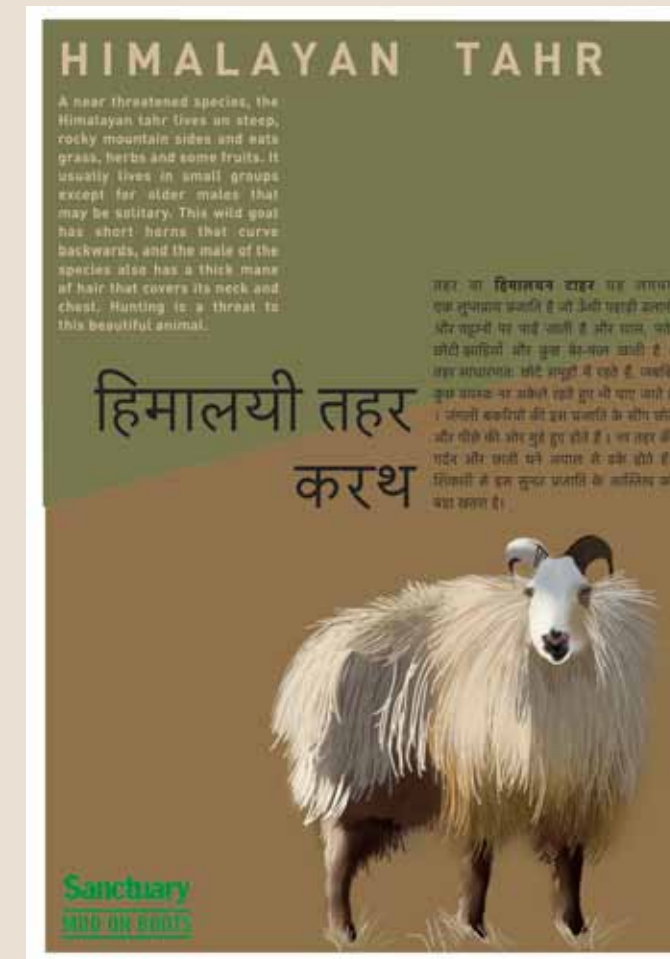
Sanctuary's Mud on Boots Project is a booster programme designed to empower grassroots wildlife conservationists across India. Here's what's happening in the field!

FISH FIELDS

Project Leader Malhar Indulkar loves Nature and is particularly fond of otters. In Maharashtra's Sindhudurg district, Indulkar has found a way to ensure the region's otters can always have their fill. As the rains lash the state, fish move upstream and enter flooded fields along the Tillari river to spawn. Here, they are victims of unregulated fishing. Now, thanks to Indulkar's relentless community outreach work, six farmers have agreed to stop fishing in their fields, a total area of about 14 acres, during the rainy season. This 'fish plot conservation project' is slowly gaining community support and was recently featured in the local newspaper too! By protecting the spawning grounds of the fish, Malhar is ensuring a healthy population in the river for both people and otters.

FARMERS AND FORESTS

In the Bisle-Charmadi landscape of Karnataka, Project Leader Bhuvan is utilising the *Krishi Aranya Protsaha Yojana* scheme to encourage farmers to plant indigenous tree species around their farms. This state government scheme aims to increase the green cover in non-forest areas in Karnataka via the incentivised distribution of one crore wild seedlings every year. With Bhuvan's support, three farmers have now adopted this scheme, and planted wild varieties of nutmeg and garcinia on their farmlands. Over the next few months, Bhuvan hopes to inspire many more local farmers to adopt the scheme for the benefit of the region's biodiversity and people.



HIGH ALTITUDE ART

Mumbai-based illustrator Mallika Chandra has created a series of six beautiful posters on Himalayan wildlife for Project Leader Shiv Kumar. Shiv is a forest guard in Himachal Pradesh' Lahaul Forest Division and often conducts workshops and lectures in local schools. Each poster focuses on one iconic Himalayan species and includes a description in English and Hindi. Shiv will be using these for his community outreach activities.

OF MAHSEER AND BIRDS

In Karnataka, Project Leader Ashwin Gurusrikar helms the Vanodaya Wildlife Trust, an expansive but well-knit volunteer collective that works in and around the Cauvery Wildlife Sanctuary. In June, Vanodaya volunteers found mahseer fish being sold in the local market. The mahseer is only found within the protected area and the volunteers deduced that the catch had been illegally fished. They reported their suspicion to the Range Forest Officer, who immediately followed up on the tip off. Members of the Vanodaya team also recently installed 12 nest boxes in the Halaguru Range Office. The boxes have been colonised by various bird species, and the volunteers and Forest Department staff are looking forward to observing their nesting patterns and behaviour. Similar boxes will soon be installed in other offices and camps, with the intent to

support a population of Yellow-throated Sparrows, which have recently been reported from the region.

SHARING CATCH

Wildlife researchers have collaborated with residents from 18 villages under Amta Block-II of Howrah district, West Bengal, to devise a simple but innovative conflict-mitigation strategy to curb the animosity of small-scale fish farmers towards the fishing cat, which competes with them for fish. In a programme facilitated by Project Leader Joydeb Pradhan, 40 fisherfolk who had previously reported fish loss because of fishing cat predation have been provided with 10 kg. of fish fingerlings each. In return, they have agreed to install and monitor camera traps around their ponds to provide data on fishing cat movement to the researchers. Each of these members has also pledged to protect the fishing cat from harm. In this way, both human communities and fishing cats will be able to share the pond resources without any serious losses.

SOIL SAVERS

In early July, the sharp young members of Faridabad's Mangar Eco Club built two check dams in the Mangar Bani forest under the guidance of Project Leader Sunil Harsana. These simple stone structures preserve the integrity of



GAURAV SHIRODKAR

the earth by halting soil erosion and allowing rain water to seep into the ground and recharge groundwater. The sacred grove of Mangar Bani is part of the Aravalli forests, but is tragically threatened by land encroachment and government apathy. The Delhi and Haryana governments could surely learn a thing or two from the kids of the Mangar Eco Club.

RIVER WALKER

On June 26, 2019, 35 nature enthusiasts crammed into a fitness studio in Mumbai's Juhu suburb to attend a 'Seek Sanctuary' event hosted by the Sanctuary team. The speaker for the evening was Siddharth Agarwal of Veditum India Foundation. A professional walker, Agarwal shared marginalised stories of people and the environment collected over five years and 6,000 km. of journeying across India on foot. It was an electric evening that left the audience inspired. (Seek Sanctuary events are free, informal gatherings featuring a guest speaker that take place in

Mumbai as and when the opportunity arises. Stay tuned to Sanctuary's social media channels for information on upcoming events.)

CROWDFUNDING CONSERVATION

It took five weeks and 543 supporters to raise a generous Rs. 16,41,110/- for four wildlife organisations in India! The crowdfunding campaign launched by the Mud on Boots team sped past its target of 15 lakh rupees, with support pouring in from across the country. The three under-resourced wildlife rescue organisations that have benefitted from the campaign are the Wildlife Conservation and Animal Welfare Association, the Wild Animals Security Study and Research Centre, and Naturalist for Rehabilitation of Birds and Snakes. Sanctuary's Mud on Boots Project also received part of the funds that were raised. To learn more about this campaign and the benefitting organisations, head to www.ketto.org/IndianWildlife.

COURTESY: SHRIDHAR SUDHIR



TOO LITTLE, TOO LATE?

Ramki Sreenivasan of Conservation India says that as of now we have been a serious let down to the Great Indian Bustard (GIB). Though it chafes my optimism, I am compelled to agree.

Here are the simple facts – in the near 60 years since the great Sálim Ali prophesied the extinction of the GIB, the species numbers have continued to plummet despite lofty promises by state and central governments and the regular injection of funds for the conservation of the bird.

Now, the successful hatching of two of six GIB eggs being incubated at a captive breeding facility in Jaisalmer has brought the spotlight back on the fate of the big bird. It's certainly encouraging that the Wildlife Institute of India, with technical collaboration from the International Fund for Houbara Conservation, has achieved this much. Still, I'd advise enthusiastic nature-lovers to temper their celebrations. It has taken eight long years since the captive breeding project was first proposed for the WII to finally be allowed to initiate the project, and even now there is no guarantee of its success. Just to establish a founder population of the birds in captivity, it is reported that the team will need to collect about 24 eggs (other reports say 50) from the wild. No small task when you consider the shrunken population of the species, its vast habitat and its notoriously slow breeding habits. An adult female GIB lays no more than one egg a year.

Lest you accuse me of being jaded, let's assume that 24 eggs are collected and successfully hatched and raised. Voila! Here is our founder population of captive GIBs that can be further bred. It will be their offspring and their offsprings' offspring, raised in safe and clinical captivity, that will possibly be released back into the wild. A 15-year plan at best by the WII's own admission.

Fantastic? Yes, in an ideal world... which ours' is not.

I do believe that if the current zeal being exhibited by state and scientists is sustained, the GIB can be saved from extinction. The question now is, can it be saved in the wild? I'm afraid my prognosis here is bleak. The GIB's habitat is under unchallenged assault, and without its grasslands this species, and others like it, don't stand a chance. I do not make such a dire statement lightly; I make it off the back of the information I receive from scientists and conservationists in the field.

Readers of *Sanctuary* are already well aware of the threat posed by high tension power lines to these low-flying birds. The campaign that we launched in collaboration with Conservation India and The Corbett Foundation in December 2018 called for state and central governments to lay these wires underground. Though the campaign received massive public support, it soon

got sucked into the blackhole of bureaucratic communications – silenced under a barrage of superficial missives and empty promises from power companies and ministry officials. A truly effective way to defang earnest conservation campaigns.

In May 2019, I learnt that no strict deadline has been set for power/energy agencies to adhere to the mitigation measures. Without this, the implementation is permanently delayed and too slow to help species recovery; The Power Grid Corporation's Kutchh-Banaskantha line has a single balloon installed in the 320 m. distance between two subsequent pylons but experts say that these balloons need to be installed every five m. to be effective; and in Kutchh, the GETCO substation is being developed in the middle of the GIB's wintering and breeding ground, barely 50 m. from the forest boundary. I believe nearly 20 transmission lines will be installed in and around the bustard habitat through the substation.

In July, a trusted source shared further sobering news.

The behemoth that is Tata Energy is establishing a new solar energy plant... in prime bustard habitat. The 10 sq. km. plant is coming up in Pokaran, Jaisalmer. "I have seen bustards in this area many times, and even now they are present. This is the area where WII is doing studies," shared one bird expert.

A handful of individuals cannot save the GIB on their own. The cold, hard truth is looking us in the eye and spitting at our feet – Rajasthan has fewer than 120 GIBs left, Gujarat has a dozen odd but not a single male, and no other state has a viable population. Simultaneously, little has been done to address the threat posed by overhead power lines, while additional GIB habitat is being parceled off to power companies. More recently, a report

published in *Down To Earth* highlighted yet another invisible threat to the species survival in the wild – noise pollution from human activities that is interfering with GIB mating rituals. There are also the issues of pesticides and stray dogs.

It would be amiss of me to neglect the few silver-linings in this scenario. Independent conservationists and organisations, led by veteran wildlifer Dr. M.K. Ranjitsinh, have filed a PIL on the issue in the Supreme Court; and a high-powered committee has been constituted to frame and implement an emergency response plan. Simultaneously, the two Chief Ministers of the largest GIB range states, Gujarat and Rajasthan, have pledged their support to the species; the former by announcing at the latest meeting of the State Board for Wildlife that "irrespective of costs incurred, agencies must make the power lines underground"; the latter by visiting the captive breeding facility in Rajasthan. These are positive news headlines of course, but difficult to take at face value given the history of unfulfilled promises for the conservation of the bustard.

So, don't pop the bubbly just yet. Sure, we can hatch an egg but we're far from proving that we can save the species and its habitat.



THE MUD ON BOOTS PROJECT

BY CARA TEJPAL

In these pages, we share nuggets of news from the grassroots conservationists supported by Sanctuary's Mud on Boots Project, along with campaign updates, and information on conservation collaborations. Here are the highlights from this monsoon:



BHUVANESHWARA H. C.

RESTORATION AND RARE TREES

In Karnataka, Project Leader Bhuvaneshwara H.C. collaborated with the school development committee of Kurunji Venkataramana High School in Kollamogru to initiate a native tree restoration project. With Bhuvan's help, the committee was able to procure 200 native saplings from the Forest Department under the Krushi Aranya Protsaha Yojane. In late July, 200 students and 20 local residents came together to plant these saplings. This programme is being designed in collaboration with Dr. Meghna Krishnadas. In other efforts, Bhuvan conducted a

day-long seed collection drive of a rare tree – white cedar or *Dysoxylum malabaricum*. The rarity of the species is illustrated by the fact that only eight seeds were found and collected during the drive.

HONORARY STATUS

In September 2019, Project Leader Bhuvaneshwar H.C. was granted the position of Honorary Wildlife Warden for Dakshin Kannada district by the Karnataka Forest Department. This is an important recognition of Bhuvan's conservation work and will allow him to continue to liaise with the Forest Department in a more formal capacity.



A 'SACRED' SWAMP

On August 27, 2019, Faraway Originals and Sanctuary Nature Foundation released 'Sacred', a short film on the unique philosophy and work of Project Leader Malhar Indulkar. Malhar is a young grassroots conservationist from Sindhudurg, Maharashtra, who has been working to protect sacred groves and riverine habitats along the Terekhol and Tillari rivers. Shot almost entirely in a revered and rare Myristica swamp over a period of two days, the five minute long film can be watched on YouTube. The film has been viewed thousands of times in the past few weeks and has received raving reviews from viewers. Read their comments on page 96, and watch the film on Sanctuary's YouTube channel.

THE MEN FROM FARAWAY

'Sacred' was created *pro bono* for Sanctuary by a young team of storytellers and filmmakers from Bengaluru. This talented team of creatives comprises Naveed Mulki, Pankaj Singh, Shaktiraj Singh Jadeja and Rishabh Malhotra.

Naveed is a writer, director and sound designer dedicated to recount and craft stories that are hidden under layers of the rich fabric of humanity; Pankaj writes and directs. He is drawn toward tales that hold the many mysteries of the natural world and hopes to strengthen the cause of conservation by exploring perspectives, documenting personal narratives and crafting rich portraits of wild spaces and the people that hold them dear. Shakti is a cinematographer, director and editor, dedicated to capturing stories of all kinds through his unique, poetic visual language and song-like edits. He seeks to draw

environments and portraits in their most authentic form. Rishabh Malhotra is a writer and producer who has a keen interest in bringing alive unheard tales of the Indian army. His pursuit is that of bringing unconventional stories to relevant audiences within the country and globally.

Follow their work on Instagram, Facebook and YouTube: @FarawayOriginals.



COURTESY: FARAWAY ORIGINALS



GARDENERS OF EDEN

In August, Mud on Boots Project Coordinator Maitreyee Mujumdar conducted a pilot conservation education workshop in Dharamjaigarh, Chhattisgarh. The human communities here are heavily stressed by human-elephant conflict.

Maitreyee has a background in teaching, theatre and clowning, and chose Dharamjaigarh as a project site because of her familiarity with the region and the urgency of the issue. It is also the area where our Project Leader Sajal Madhu focuses on conflict mitigation.

Over a three day period, Maitreyee worked with 60 children to understand their experiences with elephants, and to share her own knowledge with them. Using an interactive curriculum developed over a period of four months, she employed a host of games to introduce the kids to elephant biology, ecology, safety and conservation.

The pilot programme was successful in that the rate of attendance went up over the three days, and the school teachers requested that the module be extended. In light of this, we are now exploring a long-term engagement on conservation education in this landscape. A special thank you is due to educationist Varsha Sahasrabudde for her guidance on this project.



THANKS, GAJU

Where's Gaju's Herd?, a picture book on human-elephant conflict created by award-winning cartoonist Rohan Chakravarty for the Wildlife Trust of India has been a fantastic resource for the Mud on Boots Project. The book has been used by Project Leaders in both Chhattisgarh and Karnataka for their outreach activities. A big thank you to both Rohan and WTI for sharing this publication with us and helping decode the conflict to children who are impacted by it.

RESCUE AND ACCOLADES

On the morning of August 23, 2019, Project Leader Shiv Kumar, a forest guard in the Lahaul Forest Division of Himachal Pradesh, was informed of an injured vulture at a nearby site. Along with his associates, Shiv reached the spot and was able to spot and catch an injured Himalayan Griffon. The team took the bird to a veterinary doctor, and then shifted it to an isolated shed, fitted with a camera trap,



for the bird to make its recovery. After nine days in their care, the griffon was released near the site at which it was found. Wildlife rescue and rehabilitation is difficult work at the best of times, and much more so when resources are limited. The happy conclusion

to this story was made possible by Shiv and his friends – Ishaan Rashpa, Guru Rana, Aamir Jaspa, Aaditya Thakur and forest guard Mahesh.

In July, Shiv was felicitated by Shri Jai Ram Thakur, the Chief Minister of Himachal Pradesh, for his dedication to wildlife conservation. He was one amongst the members of the State Forest Department to receive the Sarvottam Vanya Jeev Mitra puruskar for 2018-2019.



MISSION MANGAR

Project Leader Sunil Harsana's commitment to protect and restore Mangar Bani, the sacred forest of his community, has won him accolades, media coverage and friends.

In July, the young members of the Mangar Eco Club spent a day removing litter from their forest. The 35 children and three adults from the community collected 28 bags worth of non-biodegradable trash from the area. The Eco Club also spent the monsoon months planting seeds of native species, collected during the summer, in degraded areas of the forest. Collaborating with various citizens' groups and schools on restoration drives, the Eco Club has planted saplings or sowed seeds of trees such as *palaash*, *ronjh*, *khair*, *kumtha*, *peepal*, *pasendu*, and *jhinjedi*.

Sunil's work has found support from several experts. In September, during a field visit to meet Sunil, the Sanctuary team was introduced to Misha Bansal of the Centre for Ecology Development and Research; and amateur naturalist Peeyush Sekhsaria, both of whom are providing a fillip to Sunil's efforts while also pursuing their own projects in Mangar Bani.

SNAKES AND SAFETY

Not many know that the World Health Organisation considers snakebites in India as a neglected tropical disease. According to one groundbreaking study, an alarming 50,000 individuals die from snakebite every year in the country! As part of her ongoing work to educate her community on snakebite avoidance and management, Project Leader Marina Juliet held a workshop on the issue for children from Rathnapuri village, Karnataka. Marina is also assisting her mentors at The Gerry Martin Project (TGMP) with surveys on snakebite epidemiology in the district. Sanctuary has been collaborating with TGMP, a conservation enterprise located in the Mysore district, since its inception. Find out more about their work on www.gerrymartin.in or @thegerrymartinproject on Instagram.



FRIENDS AT THE FLOURISHING DIVERSITY SUMMIT

From September 7-11, 2019, Flourishing Diversity hosted a series of events across London. The dialogues were led by indigenous leaders from across the world and centred on issues of the climate crisis and environmental protection. We're delighted to share that India was well-represented at the event, including by members of the *Idu Mishmi* community from Arunachal Pradesh. In March, Sanctuary collaborated with Dr. Sahil Nijhawan to conduct a natural history workshop for youth from the community in Roing town. Dr. Nijhawan also wrote the coverstory for the April issue of *Sanctuary Asia* magazine, on the incredible conservation culture of the *Idu Mishmis* that has preserved and protected tigers in the state's little-known Dibang Valley. The community was represented by Sipa Melo, Emuko Miwu and Jibi Pulu at the summit, which also saw representation from the *Arhuaco* community of Colombia, *Ashaninka* and *Guarani* of Brazil, *Khoisan* from Namibia, and the *Bishnoi* from India. 🐾



THE MUD ON BOOTS PROJECT

BY CARA TEJPAL

Sanctuary's Mud on Boots Project is a booster programme designed to empower grassroots conservationists in India. It has been created for those conservationists who struggle to find support through more traditional routes because of issues such as lack of academic qualifications or professional affiliations, language barriers, geographical remoteness and an unfamiliarity with the digital space.

We identify such individuals through our expansive network of wildlife science, conservation and media professionals who are invited to send in nominations. Over a two-year period, selected Project Leaders receive a monetary grant of about three lakh rupees, and customised, strategic support that can include capacity building workshops, exposure trips, campaign creation, expert input, liaising with authorities and more. Currently, seven individuals across six states are working under the Mud on Boots Project.



SHIV KUMAR



COURTESY: SAJAL MADHU

HAATHI SABKA SAATHI

In early October, Project Leader Sajal Madhu organised a massive human-elephant conflict awareness programme in collaboration with the State Forest Department. The event was held in Narkola village, and was attended by over 800 residents from the villages of Narkola, Baisi, Rupunga, Fatehpur and Ududa. Attendees included school children, teachers, village authorities, and members of the Forest Department. Priyanka Pandey, Divisional Forest Officer, Dharamjaigarh, led some of the discussions and engaged the crowd on issues related to the conflict. Basic information on elephant behaviour, reasons for the conflict, and current movement of wild herds in the area was shared.

Sajal, himself a resident of the Dharamjaigarh block of Raigarh district, is focussed on addressing human-elephant conflict

through his homegrown campaign *Haathi Sabka Saathi*. He works to alleviate distress within impacted communities by assisting in the process of filing compensation claims, organising regular awareness workshops, and collaborating with the Forest Department.

THE MAGIC OF MANGAR

Project Leader Sunil Harsana's army of young nature enthusiasts is fast developing into a formidable force for the conservation of Mangar Bani, a remnant patch of the Aravalli forest that lies between Faridabad and Gurgaon. In September, these members of the Mangar Eco Club participated in a butterfly counting exercise organised by the Bombay Natural History Society. With guidance from former teacher Vinod Ahlawat, the kids were able to observe and list 25 species in a two-hour long survey. Club members have also been recording weekly observations on birds in Mangar, and are now able to discern patterns in movement, behaviour and the presence or absence of particular species. In the past two months, the kids have listed 70 species from Mangar, including seven species that they observed for the first time. Beyond their natural history observations, the club members have also been studying the efficacy of check dams that they built earlier this year to counter soil erosion. This year, their efforts found support from the adults in the community as well as a local NGO, Laksh Foundation.

While Sunil's mentorship of the Mangar Eco Club is building a solid foundation for future conservation efforts, he is also working with urgency to tackle current threats to the vulnerable Mangar forest. His relentless advocacy work has kept the issue alive in the minds of the public, and received regular media coverage, including articles in *The Times of India*, *Dainik Jagran*, and *The Pioneer*.



COURTESY: SUNIL HARSANA



COURTESY: MALHAR INDULKAR

KIDS FOR OTTERS, AND FARMERS FOR SWAMPS

In October, Project Leader Malhar Indulkar visited the Vilavde High School, along the Terekhol river, to hold a workshop on otters! Malhar introduced the students to otters, their importance in the ecosystem, and the threats they face. Each child also received a comic book on otters, written by Gopakumar Menon of the Nityata River Otter Conservancy. Malhar left the school, having given the students the task of composing a story on the otters of the Terekhol river.

The conservation of the rare *Myristica* swamp in Sindhudurg has occupied Malhar's thoughts for the past year. In October, he arranged a consultation with eight farming families that live in Bambarde village, close to the swamp. During the consultation, he explained the harm caused by chemical fertilisers and pesticides, and urged the farmers to adopt organic farming practices. Later, Malhar facilitated the first of a series of planned workshops on organic farming. This first workshop was on making Jivamrut, an organic fertiliser, and was hosted by local farmer Shivram Naik. Nine other farmers attended the session, which also included an orientation by practicing organic farmer Rajan Venkatesh. The next sessions will be on organic pest control, mixed-crop farming, native seed varieties and the significance of forests to farming.

The local Forest Department has also expressed fresh interest in the conservation of *Myristica*, and Malhar facilitated visits to the swamp for a number of officials, including Clement Ben, DFO, Koyna Wildlife Sanctuary, Samadha Chavan, DCF, Sawantwadi, and Sunil Limaye, APCCF of Maharashtra. These visits have proved valuable, with the Forest Department proposing to declare the swamp a Community Conservation Reserve, and assuring full-support to community efforts to protect the swamp.

Over the past few months, Malhar has collected 11 germinated seeds of *Myristica* from within the swamp, and 45 *Myristica* saplings from its periphery to set up a nursery. Local farmer

Ramesh Thakur is housing this nursery in his backyard. His nurturing of these saplings has been incentivised by offering him Rs. 10/- per sapling that survives every quarter (three months). He will receive an extra Rs. 10/- in the last quarter when the saplings will be transplanted. Assuming 50 saplings survive for two years, the family will receive a sum of Rs. 4,500/-.

SHIV FLIES SOUTH!

In October, Project Leader Shiv Kumar made his maiden trip to Bengaluru to attend a Pre-Conference Module on Conservation Science and Practice, organised prior to the Students Conference on Conservation Science. He was one of just 15 individuals selected for the module, which aims to make conservation more accessible and inclusive! During this five day workshop, the participants learnt about conservation science, research and practice via classroom sessions, case studies, critiques, debates and group projects. Shiv says he sees the word 'conservation' in an entirely new light after having attended this course!

There aren't too many courses available for grassroots conservationists in India, and we have to extend our gratitude to the organising committee of the SCCS-Bengaluru for creating this module. Last year, Project Leader Limthure Yimchunger from Nagaland benefited from the workshop, this year it was Shiv, and we hope that more of our Project Leaders apply and are selected for it in the future.

SNAKES AT STAKE

This October, the Mud on Boots Project partnered with The Gerry Martin Project (TGMP) to organise a three-day workshop on snake conservation, and snakebite management. The workshop was held at TGMP's gorgeous conservation farm on the banks of the Devikere lake in Hunsur, Karnataka, and was attended by five wildlife rescuers from Maharashtra. The participants were from two grassroots organisations –



COURTESY: SHIV KUMAR

Wild Animals Security, Study and Research Centre (WASA), Amravati, and Wildlife Conservation and Animal Welfare Association (WCAWA). This intensive workshop proved to be valuable, with participants learning about the science of snake conservation for the first time. They were also exposed to the pioneering Russell's viper telemetry project being conducted by TGMP, nuances of snake venom composition, extraction and administration, and how to use a software called ODK (open data kit) to create their own studies based on their rescue work. The workshop was facilitated by Gerry Martin himself, with Mud on Boots Project Coordinator Maitreyee Mujumdar acting as translator!

This workshop was funded by wildlife supporters through their contributions to a crowdfunding campaign led by me (Cara) in April this year.

MUD ON BOOTS ON THE LONGLIST!

We're excited to share that the Mud on Boots Project has been longlisted for the Outlook Indian Responsible Tourism Awards under the category 'Best Wildlife Conservation Project'. We're delighted with the recognition and extend our congratulations and support to all the others that have been nominated as well.



CHANDINI CHHABRA