



THE MYSTERY BIRD OF INDIA!

The only fact known about this species is that it is observed solely during the monsoon season (July-September) in some semi arid grassland habitats in North and North-Western parts of India!

Where does it remain for rest of the year? A riddle confronts scientists working on the species called Lesser Florican (LF), one of four species of Bustards found in India. Paul Goriup (co-author of Bustards in Decline) led the first surveys in the Kathiawad region of Gujarat to try to find answers. He emphasized in 1981 to 1982, that satellite transmitters would be necessary to solve the mystery, but no action was taken by the government on his request.

Thankfully, The Ministry of Environment Forest and Climate Change (MoEFCC) started evincing interest more recently. It permitted its scientific-arm, Wildlife Institute of India (WII), to study afresh the different species of Bustards and apply transmitters to decipher hitherto unknown facts about these grassland species.

Their estimated number are 4374 (in 1962), 1672 (in 1989), 2206 (in 1994), and 3530 (in 1999) according to a survey undertaken by Dr. G.S. Bhardwaj, Additional Principal Chief Conservator of Forest, Rajasthan (his piece appears in this volume). He carried out extensive studies on Indian bustard species while working with the Wildlife Institute of India.

India successfully achieved ex situ breeding of the Great Indian Bustard in 2019 through an inter-institutional collaboration facilitated by MoEFCC, the Forest Department, Rajasthan, the Wildlife Institute of India, and the International Fund for Houbara Conservation. As of July 2020, ten chicks are being raised at a hatchery set up in the western corner of the Desert National Park in Jaisalmer district of Rajasthan: Eight females, one male and one yet to be assessed.

Lesser Florican and Bengal Florican are the other two resident Bustard species in India. Houbara Bustards, the fourth species of Indian Bustards, migrate through India. Success attained so far on the conservation of the Lesser Florican is being reported in this volume of the Conservation Times. – Editor



1st ever initiative: Dr. G.S. Bhardwaj, Additional Principal Chief Conservator of Forest, Rajasthan, releasing a Lesser Florican, after being tagged in Shonkaliya countryside, Nasirabad, Rajasthan, India, in 2014. Ali Husain, a trapper from BNHS, looks on.

1ST SATELLITE TAGGING OF LESSER FLORICAN

By Dr. G.S. Bhardwaj

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The Wildlife Institute of India conducted a study to understand the movement patterns of Lesser Floricans within and outside the breeding areas using satellite tracking techniques. I was part of the team. In 2014, we were able to tag two male Floricans with satellite transmitters in the agriculture fields of Shonkhaliya landscape near Nasirabad area of Ajmer district of Rajasthan. Their post tagging behaviour yielded new information such as:

Florican-I: 18g transmitter (Platform no.125812), was tagged (at Shonkaliya). The bird spent 112 days and left the breeding ground on 11 November 2014. The bird flew for 94 km in a southerly direction and settled in grasslands north of Bhilwara, Rajasthan.

Florican-I crossed this distance in 5 days 8 hours with four stopovers. Each stopover lasted one to two days. All the stopovers were in the croplands and grasslands. It flew at the speed of 0.73 km/hr which include the stopover time.

Florican-II: It was tagged with 22g GPS/Argos transmitter. It failed after 35 days but had provided much more precise insight to the lekking behaviour of this species. This Florican could shift the displaying territory within an area during a breeding season. Three times this bird had shifted his territory and spent considerable time in each territory and displayed.

All these three territories of this bird were within the home range of 6.8 sq.km (MCP 100%). Our preliminary observations on the male Florican, which could retain the functional transmitter till 15th June 2015 revealed that the Florican did not migrate longer distance.

Significance of grasslands: If the Floricans do not migrate long distance and restrict to other parts of semi-arid grasslands during the non-

breeding seasons, then the importance of semi-arid grasslands goes up several folds with respect to long term conservation of Lesser Florican in the country.

The Lesser Florican is endemic to the Indian subcontinent. Once it was widely distributed in low-lying open grasslands and seen throughout the year in parts of north-western India. Due to agriculture expansion and other developmental activities grassland habitats underwent rapid degradation. Consequently, Florican populations immensely declined and became rare. Lesser Florican is an indicator of healthy semi-arid grassland ecosystem and monsoon when they occur in good number in north-western part of India.

Remnant populations: Ajmer (Shonkaliya near Nasirabad), Sailana near Ratlam in Madhya Pradesh, Dahod in Gujarat, Naliya (Lala Bustard Wildlife Sanctuary and adjacent grasslands) in Kutchch district in Gujarat, grasslands or croplands in Amreli district and Gir National Park in Gujarat, Pratapgarh, Pali and Tonk districts in Rajasthan, Pune and Washim districts of Maharashtra hold outstanding breeding population of the bird during monsoon (2019-20).

Intake: Intake of Floricans include many types of invertebrate: grasshoppers, beetles, flying ants, hairy caterpillars, centipedes, worms, frogs, small lizards and various plant parts: crop shoots, leaves, herbs and berries. Most of Florican sightings have been at the fringes of grasslands which were adjoined with crop fields. It shows that the Florican prefers this area largely due to more availability of insects in the region. Use of pesticide in the adjoining agriculture fields around the grasslands is drastically reducing the food availability. Moreover, insect with pesticide may also threaten the Floricans health.

MIGRATION RIDDLE SOLVED ?

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Dr. Dutta provided following details to the Conservation Times:

Q: When did you tag Lesser Floricans and where?

A: We tagged a male Lesser Florican *Sypheotides indicus* near Kalyanpura, between Ajmer in north and Kekri in south, on 15 September 2019. We named him Sufi after the venerated Sufi saint, Khwaja Moinuddin Chishti, whose tomb is located at Ajmer, about 60 km from the site of our work station, as a symbol of peace, migration and mysticism.

Q: What transmitter details?

A: We placed a solar S-9 GSM transmitter of Milsar brand using a cross backpack harness on the bird. The unit weighed 12g, about 3% of the bird's body weight. This tag collects GPS locations, and transmits them to remote computers using mobile networks when a bird comes in network coverage. It is among the very few tags available today that suits the small size of a Lesser Florican (500 g). It also matches our conservation requirements (high resolution location data to understand seasonal habitat use and ranging patterns).

Q: How far did the bird move?

A: The bird stayed back at its breeding ground, where it was tagged, till mid-October, and moved locally. Subsequently, as the local farmers started harvesting their crops, Sufi commenced its migration towards the wintering ground. Between mid-October and early December, the bird moved in the southeast direction, covering about 400 km. It crossed Bijoliya, Gandhi Sagar Wildlife Sanctuary, Mandsaur, stopping at several sites. Its stops showed us some Lesser Florican habitats that we did not know about. It settled in the agricultural areas of Palda Village near Agar, Madhya Pradesh, where it stayed till February 2020.

The bird was tagged by a team of WII researchers: Dr. Tushna Karkaria, Dr. Shravan Singh Rathore, Mohib Uddin, Sourav Supakar, Tanerav Singh and myself (Suthirtha Dutta) and frontline staff of Rajasthan Forest Department (Rajendra Singh Rathore). A field research team of WII (Sourav Supakar and Pushkar Phansalkar) tracked the bird on the ground to understand its habits and habitats better.

Q: When was the last message received?

A: The tag transmitted for about six months, and has not communicated since the end of February 2020, probably due to technical failures.



WII takes charge: Dr. S.S. Rathore, Dr. Tushna Karkaria and Dr. Suthirtha Dutta tagging the Lesser Florican during 2019 in Shonkaliya countryside.

Q: What next for LF work?

A: Telemetry is an important prerequisite for conservation actions. The tagged bird showed us its breeding and non-breeding habitat, seasonal microclimate requirements, and other ecological aspects. Since the non-breeding habitats of this species are largely unknown, transmitter data will be used to identify and safeguard such habitats, understand its biology, and develop in-situ and ex-situ conservation approaches. Thus, we will attempt to tag more

Lesser Floricans in the coming monsoon in Ajmer. The work will be in collaboration with the Rajasthan Forest Department.

WII, in partnership with the Ministry of Environment, Forestry, and Climate Change (MoEFCC), the Rajasthan Government, and the International Fund for Houbara Conservation is also planning to commence Lesser Florican conservation breeding in the near future.

The tag's battery can run for many years. As an example, the battery used for the Great Indian Bustard (GIB) research project would remain active for 2-3 years. It is the best gadget available today in the world. It is manufactured by a European company.

The weight of the tag has to be a maximum of 3% of the body weight in birds. (It can be 5% of body weight in mammals.) Strength of the battery and relay of messages can be hampered due to feathers growing over the tag and solar light not being available to the battery. It is a solar powered battery. It is presumed some LFs may fly further down South and may reach up to Karnataka or Andhra Pradesh.

This will also get established when more birds are tagged. How to house birds outside breeding areas is a question.

Egg collection of LFs is on our agenda. Two LFs were reported at Shonkaliya (on 5 July 2020). A temporary egg centre is to be made functional near Nasirabad. Sadly the main hatchery construction work at Ramdeora was severely hampered (March till July) owing to Corona impacted conditions. The situation is being retrieved. LFs' ex situ breeding will be in tune along with what was attained for GIBs. -- Editor



Migration path tracked down: The WII tagged bird (2019) flew more than 400 km to reach Agar where battery of its transmitter went off: the satellite transmitter application, not being permitted by forest authorities for decades in India, now teaches new lessons to all.

CAN WE SELL WILDLIFE CONSERVATION LIKE WE SELL TOOTHPASTE?

Using Environmental Social Marketing to Benefit the Environment

By Ed McCrea

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In order to sell something like toothpaste, marketers engage in the following steps: They--

1. Define what they want to achieve (sell more toothpaste)
2. Identify the audiences. Who do they want to buy their products? (There is the temptation at this stage to say "everyone", but that is not realistic. Marketers need to target those who are most likely to buy toothpaste. In this case, it is likely to be the person in the household who does the shopping, in most cultures, women.) Even within women as a group, there might be different audiences—urban, rural, young old, etc.
3. Analyze what the barriers are that keep specific groups of women from buying more toothpaste or, specifically, more of their toothpaste. (Is the price too high, is the product not well known, does the product have a poor taste, etc.?)
4. Identify how the target audiences receives messages. (Are they urban dwellers who have radio, TV, social media, cell phones, etc. or, are they rural villagers who might receive messages on radios hooked up to a car battery?)
5. Discover who the target audience respects and what type of message might they find interesting or convincing. (A prominent actress talking about how white the toothpaste keeps her teeth might be a good message for some audiences.)
6. Develop the specific communication strategy for the target audiences and test it. (TV commercials might be appropriate for many audiences today, but person to person talks or convincing village elders to recommend their products might be more effective for some rural audiences, etc.)
7. Implement the marketing program and see if it is effective. If it is not effective, how do you change the marketing program? (In this case, effectiveness would be easy to measure—are people buying more of their toothpaste?)

For some years, an offshoot of marketing called Social Marketing has been used to sell solutions to important social issues. Social marketing programs to encourage mothers to have their children vaccinated against diseases have been successful. Antismoking campaigns have



Sisserou or Dominican Parrot (photo by Paul Reillo)

likewise been successful using social marketing techniques. The conservation arena has also employed social marketing to protect particular species.

A good example of this environmental social marketing is the conservation of the Sisserou or Dominican Parrot:

The Caribbean island country of Dominica is home to a colorful species of parrot that is found nowhere else in the world. The parrot population fell on Dominica for several reasons: 1. These birds live in the old growth interior forests which is threatened by practices such as logging and land clearing for agriculture or subsistence farming. 2. Birds were being caught for the pet trade. 3. A few birds were eaten for food each year by local villagers.

A conservation organization then called the RARE Center for Tropical Conservation had implemented a successful environmental social marketing campaign to help preserve an endangered parrot on another Caribbean Island. After talking to Dominica's wildlife, parks, and forestry personnel, consulting with leaders across the island, and discussing possibilities with teachers and other education leaders, RARE proposed and implemented a broad-based campaign to save the Sisserou. Part of the campaign called for direct creation of protected areas of parrot habitat, captive breeding to restock depleted wild populations, enforcement of laws prohibiting the capture of the parrots for the pet trade or shooting of parrots for food, etc.

However, a big part of the campaign was indirect and depended on building support for the conservation of the parrot.

Finding something that the citizens of Dominica valued and respected that could legitimately be tied into the conservation campaign, was not obvious at first. RARE decided that the campaign should include a strong focus on teaching people to take pride in their country and in a species that was found only in their country. The program touched on many aspects of local and national life, promoting patriotism and pride every step of the way.

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Conservation Times making waves

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The monsoon has provided long needed relief to most Indians. Good news for agriculture and environment equally. It has been too much monsoon elsewhere like in USA and UK.



The inaugural issue was received well and so it was decided that the Conservation Times would be run as a quarterly. As we sail for the 2nd issue, I am privileged to welcome and greet all new Editors. A most experienced and knowledgeable new group of Editors has joined hands together, from diverse parts of the world, to bless this TWSI product. Thanks to Ed J McCrea, Chairman of the Editorial Board, leading us from USA. All editors are expected to contribute but not all will be able to do so each issue. Hence, we invoke eminent citizens to write down their ideas and tell us all about their on-field experiences. Some have already done so to embellish this issue.

India has been found to be deficient in scientific experiments on wild species. Siberian Cranes were tagged by our group in the 90s after some questioning by the Environment Ministry and forest officials. The experiments did not succeed. The species became extinct in India! The Great Indian Bustard (GIB) waited for decades for its share of satellite tagging. Its plight was highlighted in the inaugural issue of Conservation Times (cover story) by Ashok Mahindra who had visited Desert National Park to inspect by himself the state of affairs. Lesser Florican (LF) follows in the footsteps of its larger cousin bustard. This issue of Conservation Times highlights the same. Besides the Wildlife Institute of India, a forest officer of infinite strength and field experiences, Dr. G.S. Bhardwaj has shared his experiments with LF in this issue.

Brilliant writers have contributed on a variety of topics like Mahendra Singh on Demoiselle Cranes, Bernard Price on a Buzzard, Kevin on citizen-science, Martin on Houbara in the Canary islands, Mrinalini on birds in an army station, Seema on Snow Leopard's impact in the Himalayas, etc. Ed McCrea has been inspired to suggest how social marketing could be initiated for wild species citing example of GIB. Manoj Sharma in the US has come out with an imaginative version of breathing as to be associated with a holy treatise, etc. Salutations to all writers.

A painting competition was held by TWSI on 50th Earth Day which drew response from nearly 600 students. Their prize giving away event was staged in Jaipur and we carry its details as well in this issue.

The distribution of this newsletter is by way of emails and is being strengthened to cover a larger readership. You are welcome to convey more email addresses to be included. We shall try our best and do kindly pour in valued suggestions.

RESCUING A BUZZARD

By Bernard Price

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I live in a very small rural village near Stratford-upon-Avon in Warwickshire, UK. It has been quiet here during 'Lockdown'. We have our masks and gloves but do not venture out much at present. One place of interest is my garden. The clear blue skies are free of aircraft trails. The air is purer, and there is no traffic noise at all.

One of the successes for conservation in recent years has been the huge increase in Buzzards (*Buteo buteo*), a large bird of prey often mistaken for an eagle. We can see them circling in the skies on the high thermals every day now. Even more incredible, the once rare Red Kite is often seen, too. Also, Ravens, have increased hugely. Ten years ago, all three of these birds were crucially endangered in the UK. They have spread nationwide now, and there are even 24-hour webcam sites of Red Kite nests in nearby Rockingham Forest.

Buzzards are shy birds not often seen up close. A few days ago, my friend Sonny rang me, "I have an eagle trapped on my balcony. I know you rescue birds around here!" I grabbed my net and walked over. Sure enough, there was an impressively big Buzzard there. Sonny looked at the large talons and said, "My family is a bit

scared". The bird was huge. Its wing span was impressive. But, as an intrepid zoologist over the years, I soon caught the bird, and we were able to release the Buzzard from my neighbor's balcony.

His house had a futuristic glass panel surround which did not give the bird room to take off. It probably flew on to the balcony in pursuit of quarry. We all watched the large bird glide away when I carefully launched it after checking it had no injuries. The family shouted 'freedom!' as he soared away.

Buzzards are one of the great conservation successes in the United Kingdom and are fully protected after centuries of persecution. I recall a long distant trip to the Desert National Park in Rajasthan, India. There large raptors also settle on flat ground but have the space to take off. The affection and interest these raptors now have with the public is a great advance.

We had a most interesting programme recently on the BBC Radio 4. It was on wildlife predation and conflict with people. An interesting section had many details of Leopards and Tigers in rural India and also on Elephants and Wolves and the number of people killed. The deaths in Europe and the US from Wolves are on the increase, too. One interesting solution to this conflict is to seek out individual animals that are the guilty actors rather than mass over-reaction against innocent ones.



Bernard rescuing a Buzzard in UK

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RARE investigated and found out that at that time, TV and other electronic media were not common on the island. However, they found out that literacy was fairly high, and teachers and leaders were respected and listened to. RARE decided that personal contacts and printed matter were the best way to reach several audiences.

Because of the fact that the education system on Dominica presented a ready way to reach at least two important audiences, RARE invested in school programs. The idea was partially to reach the children themselves, but also to reach their parents. Many parents were businesspersons and decision makers in the cities and villages. As a core aspect of the school program, a local business agreed to provide funds for a newspaper on the Sisserou and its conservation. Every student was given a copy of the newspaper several times during the school year. The students in turn, took the newspaper home and shared it with their parents.

To complement the school programs, Sisserou festivals and field days were held. These events were usually led by Celia the Sisserou, a six-foot-tall, colorful, papier mâché creation of RARE. Community leaders and politicians were enlisted as supporters of the campaign and often figured prominently in these public events.

After implementation of the campaign, many people in Dominica considered it unpatriotic to do anything that would harm the national bird, and that included destroying its habitat. By promoting patriotism and pride, the campaign

helped conserve vital forest, and the population of parrots increased. (The island has since been hit by two severe hurricanes which did significant damage to the parrot population and its habitat.)

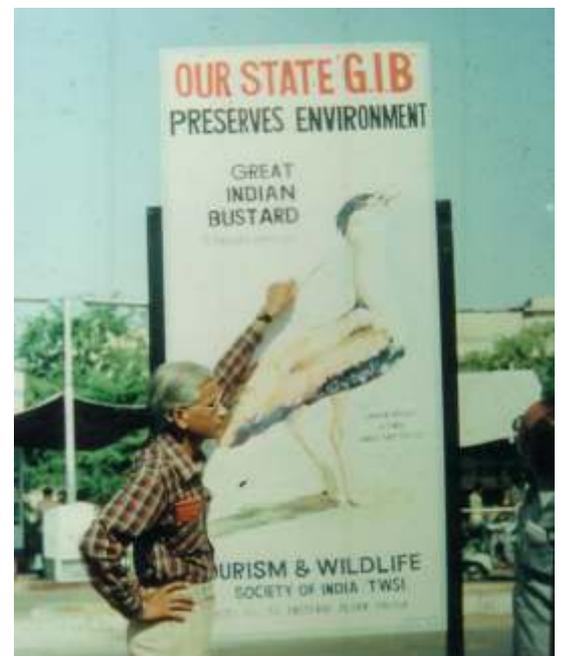
The RARE program's experience suggests that as people learn to respect their country or state and the unique species that live there, they will do more to protect the habitat of those species.

A similar environmental social marketing campaign in Rajasthan might well benefit the Great Indian Bustard and the Lesser Florican and provide support for ongoing conservation efforts like captive breeding. Efforts in the past such as having the Bustard declared the State Bird of Rajasthan and arranging for a Bustard postal stamp are in place as first steps of such a campaign.

This bee waggle dance contest

<https://www.worldbeeday.org.au/waggle/>

seems like a good activity for students or for anyone who likes. --Editor



Ed McCrea (in his piece here) has suggested Social Marketing of Wildlife species. The photo shows such an attempt having been made: a hoarding raised along MI Road, Jaipur, India, in 1981 to communicate with citizens, on GIB. Vishwambhar Modi, founder member of TWSI, authorized a nearby 'pan' (betel) shop to clean the hoarding as some cigarette companies pasted own advertisements over it, almost each week. A.B. Mathur, who ultimately became PCCF-HOFF, would always complain about such aspects and for its immediate cleaning. In this photo Harsh Vardhan is found explaining to a passer-by about why the species be conserved.

The CRANE VILLAGE

By Mahendra Singh

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(All photos by the author)

Before the current Covid-19 outbreak hit us, Rajasthan had gained the reputation for being an excellent host to foreign visitors. The residents of Khichan, a small town in western Rajasthan, also appeared to have followed the saying 'Athithi Devo Bhavah', or Guests are like our Gods, though with a twist. The place had gained recognition over the last few decades as the preferred destination of foreign visitors of the feathered kind - demoiselle cranes. These cranes start arriving by September every year to disperse in smaller flocks all over Rajasthan and Gujarat. Not being media savvy, they should be making their appearance again with the onset of this coming winter, unmindful of the coronavirus pandemic that may well continue to terrorise the global human population then.

These cranes breed and raise their chicks from April to August along a vast stretch of steppe grasslands from eastern Europe to north-eastern China. Then, to escape the bitterly cold local winter, they migrate to the warmer plains of India. The ones breeding in Central Asia such as those in Kazakhstan come through the Khyber Pass in late August, just after the monsoon. They migrate through the threat of organised

traditional hunting of cranes in Afghanistan and north-western Pakistan. The eastern populations, for instance, those from Mongolia, take a more physically challenging route, crossing over the Himalayas of central Nepal. They do so by rising up to 26,000 feet using the intermittent warm thermal air currents. Evading the predatory golden eagles of the Himalayas, they descend into the semi-arid north-west India, close to man-made or natural water bodies.

Protection: Situated on the edge of the Thar Desert, Khichan is about 150 kilometres from Jodhpur near the town of Phalodi, and almost equidistant from Jaisalmer, Bikaner and Nagaur. Khichan has a long history and was located on an erstwhile important trade route from the seacoast of Gujarat to Afghanistan. Its traditional jagirdars, or feudal lords, were Brahmin Rajpurohiths. The ruling class being vegetarians, many Jains who avoid eating meat for religious reasons, preferred to settle in Khichan and were engaged mainly in trading in grains. Over time, with the ancient trade routes falling into disuse, most Jain families have migrated out to join the Marwari diaspora in the metropolitan cities elsewhere.

As was the case with many other locations in western India, Khichan used to play host to migratory demoiselle cranes numbering 100 to 150 birds as far back in time as the locals can recall. The number of cranes visiting Khichan went through a massive increase in the early 1970s propelled by the deeds of one individual - Ratanlal Maloo. Leaving his job in Odisha, he came back to Khichan to be with his elderly mother. His uncle suggested that he should feed the pigeons - a responsibility that he enthusiastically adopted. Soon, a dozen demoiselle cranes also started visiting his feeding ground. Then, much to his amazement, they disappeared in March. Next September, more than a hundred reappeared. Word of the good Samaritan there must have gotten around in the crane world! Migratory birds always have a choice of destination. Khichan seemed to be

ticking all the right boxes as an ideal winter resort for them.

With the number of migrant cranes steadily increasing from year to year, Ratanlal rallied the other residents through the local panchayat to set aside a more substantial area on the edge of the village to feed the growing number of these feathered visitors. In 1983, the foundation of the current Pakshi Chuggaghar, or the Bird Feeding Home, was laid. Khichan currently plays host to almost 20,000 cranes in some years. The feed provided at the Chuggaghar takes the pressure away from the loss of agricultural produce to the cranes and permits Khichan to host such large numbers. Either they are fed in an organised manner by those who can afford it, or else they will feed indiscriminately on the standing crops. Ratanlal helped us to realise the former option. The Salim Ali Nature Conservation Award was conferred on him in 2009 in recognition of his services before he passed away in 2011. But the birds may not have missed him as the provisions for the Chuggaghar continue to be made available by the local Jain Samaj, or the Jain community, an activity that is also supported by the Marwar Crane Foundation.

A capable warrior for the protection of the cranes at Khichan in recent years has been the school dropout Sevaram Mali whose primary endeavour has been to rescue and to rehabilitate the injured cranes. Concerned with the frequent injury and deaths to the cranes by the naked electricity wires, he petitioned the local administration and the High Court against these wires. His persistence paid off, and now the cables near the Chuggaghar have been shifted underground, and others in the vicinity provided with rubberised insulation. His efforts to get the land and funds for a local rescue centre, unfortunately, remain entangled in bureaucratise. For his dedicated care of the cranes, he was given the Sanctuary Wildlife Service Award in 2008.

The Khichan Experience: Intrigued by these remarkable stories, we decided to experience this phenomenon for ourselves. The previous



The village scenario



Having had feed, they line up

night their feed, consisting of the millets, jowar and bajra, and watermelon seeds, had been spread out in neat rows in the fenced 400-meter compound. At the break of dawn, looking down at the still empty Chuggaghar from the terrace of the adjoining house of Sevaram Mali, the approaching cacophony of kurrkurr sounds behind us was unmistakable. Maybe, because of the sounds that they make, the birds are called 'kurjan' in the local language. Their popular name of demoiselle cranes, meaning 'maiden' cranes, was reportedly given by the infamous French queen Marie Antoinette on account of the dainty and petite appearance of this smallest species of crane. Looks can, however, be deceptive. The demoiselle cranes become aggressively territorial in their breeding stage. With outstretched wings and the threat of their sharp claws and beaks, the parents can drive even foxes away from their eggs and their vulnerable chicks.

Hordes of low flying cranes in neat formations were converging on us from many sides. They initially flew reconnaissance sorties over the feeding ground sandwiched between the tightly packed boxy little houses. Then, a lame individual crane nicknamed 'Kaptaan' gave the cue for it being safe to land, by being the first to descend. He has been providing this pioneering service since 2016. Sometimes, an inexperienced juvenile crane may land on the feeding ground earlier, but ignoring it, the other cranes come in only when the Kaptaan deems it to be safe. This scraggly looking individual is otherwise unremarkable in appearance, but what perhaps matters is that the other cranes trust its judgement.

From their landing zone, the cranes walked across en masse to where the grains had been spread out, to commence their frenzied feeding. They continue to remain alert, and frequently all of them will simultaneously look up and may

even take to the air only to circle back to the ground to resume their breakfast. That may happen, for instance, if a dog passes by the perimeter barbed wire fencing. An estimated 15,000 cranes had assembled at this small town of Khichan this year (2020). The feeding ground not being too big, they ate in batches, displaying remarkably disciplined mutual understanding and cooperation. Almost 2,000 kilograms of feed are consumed every day, adding up to a cost of nearly a crore rupees per annum. The grains are always there -- thanks to the donations in cash and kind by the resident Oswal Jains. The ties of the local diaspora with their homeland also remain. They often commit various quantities of grains to feed the cranes at the time of death of an elder in the family and on other ritually significant occasions.

Cranes coming to the Chuggaghar do so at the break of dawn, and they feed for nearly an hour



At village water body



Threats are too obvious

and a half. But not all cranes come there for breakfast. Till the harvest in November, a lot of them feed on the standing crops around, for which the farmers are relatively tolerant. After their breakfast, the birds rest on the nearby dunes in large congregations, typically facing the sun. They occasionally consume small pebbles rich in gypsum to aid the digestion of the cereals that they have eaten earlier. By midday, they move to the local ponds to drink water, where a few may enter the water for a quick bath. By late afternoon they are off to their sleeping areas where they typically rest standing on one leg. The salty depression of Malhar Rinn, 25 kilometres from Khichan, is one of the popular roosting sites. Next morning, this relatively fixed routine replays itself.

The previous afternoon we had gone across to the Vijay Sagar and Raatdi Naadi ponds on the outskirts of the town to watch the cranes resting there. These two ponds are the favourite resting spots for the cranes after their morning feed. These ponds, dug in the more prosperous times to meet the requirements of a larger human population, continue to serve the locals and the cranes. The normally shy and timid birds are surprisingly tolerant of the movement of people in Khichan. While we were there, a raptor appeared in the sky. Though the cranes are too large to be hunted by the local eagles, nevertheless, the nervousness of the cranes was palpable as hundreds took to the air to fly around, before settling back again. The photographic opportunities that such panic responses provide has, unfortunately, led some young village boys to disturb the birds on purpose, in exchange for monetary tips from a few unethical photographers.

By evening, the trigger for the demoiselle cranes to depart from the ponds came from a flock of sheep and goats that had come for a drink after their grazing. The birds were not particularly alarmed but perhaps decided that it was anyway time for them to move on; as also for us. We felt

grateful for the opportunity to be mesmerised by the visual symphony of hundreds of cranes winging up in flight. The tolerant and caring attitude of the residents of Khichan, a few well-meaning nature warriors, and the innumerable anonymous donors had together managed to provide us with this opportunity.

Threats to the Cranes: The Khichan experience reminds us that all is not lost in the battle for the conservation of wildlife. Wild birds can flourish in our human-dominated landscapes. The crucial question is, can it last? The sad fate of T-51, a crane tagged in its birthplace Mongolia, is a reminder of the threats looming over this glorious example of human-animal peaceful coexistence. T-51 managed the 2,766-kilometre arduous journey to reach Khichan in November 2019. On the last day of that year, he fell ill and died on the 9th of January along with 14 other

cranes. The post-mortem report indicated pesticide poisoning. It is not ascertainable whether the fatal ingestion happened in the Chuggaghar or, in the surrounding fields. Unfortunately, there is still no prior testing of the grains used in the Chuggaghar for the presence of pesticides.

It is also a fact that tourism around the cranes in Khichan is unregulated. This increasingly popular tourist destination has no laid down norms for appropriate behaviour. Control of pollution in the catchment area of the ponds is lacking, as is also the unchecked green cover depletion. The village panchayat is taking tentative steps to evolve proper guidelines, but the administration needs to step forward to guide and to empower these welcome initiatives. Hopefully, with time, Khichan will develop institutions to continue their excellent work and



Living together

to tackle the problems generated by these changing times successfully.

The demoiselle cranes are a long-living species that pair for life. That characteristic has found a sympathetic resonance with us humans. Valmiki, the famous composer of the Ramayan, witnessing the plight of a distraught female crane, whose mate had been shot dead by a hunter, cursed the hunter in verse. That work is traditionally recognised as the very first poetic composition by man, unlike the prior Rig Vedic hymns considered to be of divine origin. The epic Mahabharat speaks of the two armies standing in a 'koonj' formation, a reference to the inverted V formation used by the cranes in their long-distance migratory flights. 'Koonj', is a word derived from the Sanskrit word 'kraunch' which itself is a cognate Indo-European word for 'crane'.

Western Rajasthan has had a tradition of men going away to far off places for business, leaving their wives behind. Rajasthani folk songs speak of love-sick maidens trusting the seasonally departing cranes to carry their message to their beloved far away. In the middle of the ongoing pandemic, we can only hope that, as a civilisation, we continue to make space in our midst for these lovely long-distance travellers. We hope that the excellent work at Khichan can continue so that it lives up to its recognition by the International Crane Foundation as a World Heritage Site.



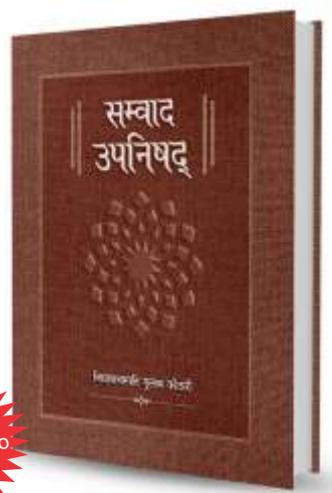
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CONSERVING BREATH

By Manoj Sharma

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As we move into the remaining half of 2020 and ponder about the events that happened in the beginning half of 2020, a common man's thoughts are hinging around Covid-19, International Politics, Economy, Racism, and Life. How all of these have impacted the socio-economic fabric of life in the last six months and what would the future look like is in everybody's mind including individuals, organizations, and governments. Coincidentally, the digital transformation, as pointed out by Thomas Siebel (Founder, Chairman, and CEO of C3.ai), "*The confluence of four technologies—elastic cloud computing, big data, artificial intelligence, and the internet of things is fundamentally changing how business and government will operate in the 21st century*", was paving the way for connectivity around the world through this confluence and infrastructure was ready for necessary functions for economies. As governments worldwide identified the danger associated with the Covid-19 pandemic, the immediate solution was to use this infrastructure for maintaining the societal order and issuing shelter at home orders to isolate the Covid-19 cases and contain the pandemic.

Many biotech enterprises, including Adaptive Biotechnologies, where I am currently working, focused their attention on Covid-19 in the areas of *Prevention, Testing, Vaccine, and Treatment*. Professor Lokesh Joshi, who hails from Jaipur (India), currently working at the National University of Ireland Galway, has also founded Aquila Bioscience, and developed revolutionary decontamination technology that protects against harmful pathogens and other viral infections like coronavirus. Their first product "ABD Device" is free from alcohol and toxic chemicals and is a biodegradable Class I device that safely captures, removes, and neutralizes harmful pathogens and viral infections like coronavirus from the skin and surfaces. In his interview*, he shares an interesting thought on conservation and not killing the pathogens but removing and neutralizing those for the fact that in nature all organisms exist and mutual respect for each other is key. He also points out that some of these organisms have existed much before human life.

As during this period most individuals are restricted to be within their homes, a new era emerged where people started utilizing different modes of virtual communication, sharing a plethora of news and information on Covid-19 and how could we effectively deal with this pandemic. Different factions developed across the spectrum from 'in believing to the dot' to 'complete disbelief about the pandemic'. Internal focus, reading scriptures, social praying and virtual meetings at Zoom became other social developments as social outings became impossible. I noticed that an Indian Hindu scripture "*Sri Ram Charita Manasa*" reciting

became quite common during this time among Hindus. Since I was exposed to this scripture from childhood, I also thought once again to put my inquiring mind into this scripture to explore the belief that this has mysterious meaningful *Chaupais* (small four-footed verses), which can offer wisdom to its devoted reader.

In this scripture, around the end, a concluding thought is included in this verse

"Satapamcacaupaimanoharajani jo narauradharai, Durnaabidyapamcajanitabikarasriraghubara harai."

(Nay the Chief of the Raghus cures the perversities, caused by the fivefold ignorance**, of those men who treasure up in their heart even a few *Chaupais* of this narrative that appeal to them as most charming).

The scripture has seven sections and a section, called *Sunder Kanda* is recited to please Lord Hanuman and I chose to explore the following *Chaupai* from this section:

"Koti Biprabadhalagahijahu aye saranatajaunahitahu, Sanamukha ho jivamahijabahi, janmakoti agha nasahitabahi."

(I will not abandon even the murderer of myriads of Brahmanas, if he seeks refuge in Me. The moment a creature turns its face towards Me the sins incurred by it through millions of lives are washed away).

In meditating upon this, I tried to find answers to the following questions: Who is *Brahmana* referred to? Who is the "*murderer of myriads of Brahmanas*"? Who is referred as *Me*? What is the meaning of "*Sanamukha* (face towards Me)"? What does "through millions of lives" mean?

Human life is unique in the sense that in addition to common goal for happiness with other living beings, they are capable of creating happiness through creativity, innovation, and discovery. Brahmana may thus refer to all human beings because of this additional faculty and the potential for self-realization.

The following picture may represent the four dimensions of life: (1) The universe (celestial bodies, animals, plants, human beings, nature, environment, and geographies), (2) Day and Time happening through centuries and changing the universe, you, and the human inquiry phenomena about life, (3) the human inquiry phenomena about life, its purpose, co-existence principles, and search for truth, and (4) an individual (You, the Brahmana) at the core center of this.

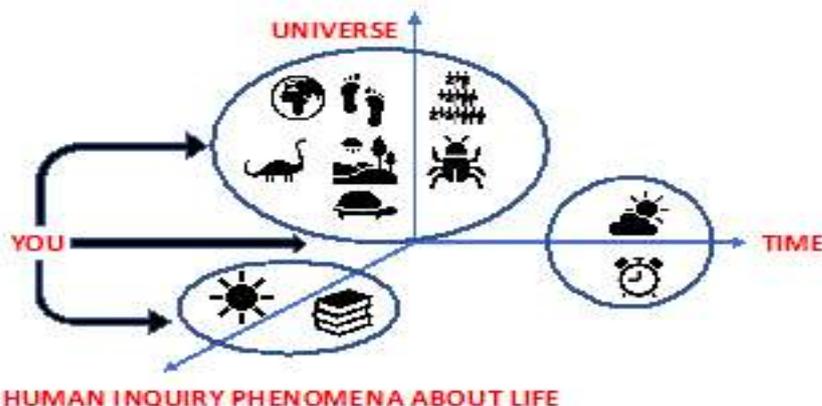
This universe has infinite dimension with tremendous amount of diversity and has been in existence for many millions of years. The central dogma of life describes the biologic principle associated with living beings. The universe is changing every instant and/or recycling in its own way and in this process every creature is destroying millions of lives. Just as Covid-19 related deaths in past six months is approaching half a million worldwide.

You, the Brahmana are attracted to the three dimensions, e.g., the universe (arousing desire to connect to various beings and objects), the time (creating stress to accumulate as much as possible in the limited time, you have in this birth), and the enquiry phenomena about life (attraction to knowledge, observation, and creation of higher principles of living). *Sanamukha* may thus refer to looking inward and focusing on breath as breath is the only connector for You to the other three dimensions. The connection starts with the first breath and ends with the last breath. In running, when I am at my peak experience of breathing in and out, suddenly my attention is focused inward on the breath, the universe as is becomes very attractive, time becomes standstill, and inquiry centers on the breath.

Breath is connecting the center "You, the Brahmana", to the universe, time, and the life in a way that you become an observer and achieve the purpose of life by receiving gracefully as allocated for you during the allotted period for your life and your inquiry stops on your breath. Conserving breath thus would mean conserving air (air is the only thing that connects all life in the universe) and in turn conserving life in the universe. Air has the quality of including all five basic elements (air, water, fire, earth, and ether) in itself and has no boundary whereas the other four elements are limited by boundaries.

*<https://www.youtube.com/watch?v=0Gr6BDX5zVQ&feature=youtu.be>

**The fivefold ignorance has been characterized as mistaking (1) the unreal for real, (2) the ephemeral for the eternal, (3) the painful as pleasurable, (4) the impure for pure and (5) that which is worth discarding for something worth acquiring.



The data obtained through citizen science adds immense value to bird conservation today. Some regions, such as the Canadian Arctic, continue to be under surveyed due to their remote location and vast nature. Citizen science initiatives like eBird empower everyday birders to contribute to species occurrence data and bolster our knowledge of birds across the globe.

People from all walks of life, including researchers, consultants, hunters, tourists, and mine workers frequent remote parts of Nunavut, the most northerly territory in Canada.

When they use eBird to record their bird sightings, government biologists can utilize this occurrence data to help inform the conservation status of various bird species. Once enough occurrences become available, eBird data can be combined with other metrics such as area of occurrence and any known threats to provide a general conservation status for a given species.

This is merely one example of how eBird data is being used today and why participation in such initiatives is so powerful.

Due to the high volume of checklists submitted (over 100 million bird sightings annually!), eBird is now able to produce data on population trends, migration timing, and migration routes, among other useful bits of information.

These tools can be used to better inform development, environmental impact assessment, and conservation planning through protection of key habitats used for breeding, migration, and stopover during migration. eBird also accepts data collected from bird banding efforts, which further strengthens our knowledge of population trends.

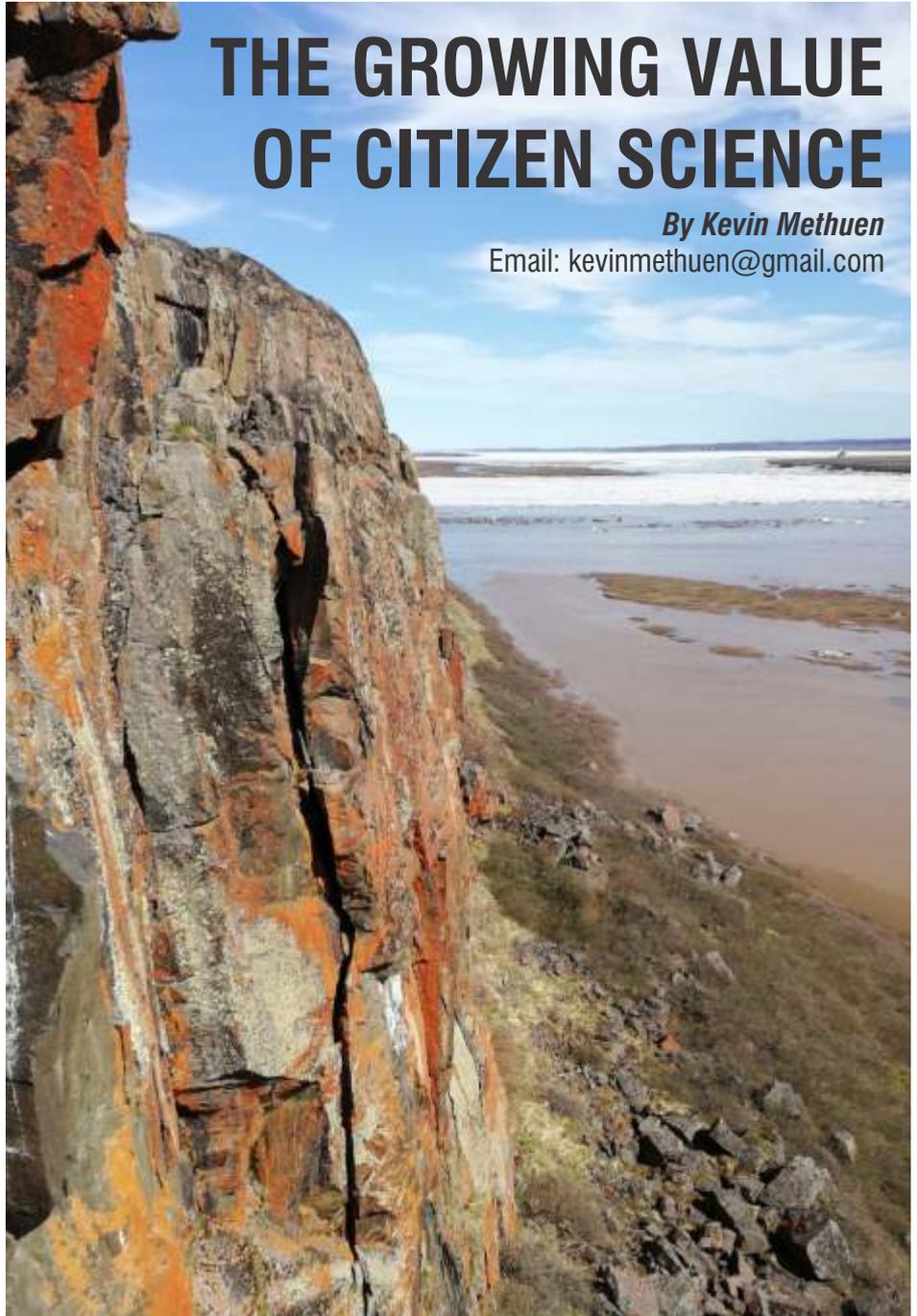
eBird is growing in popularity. In India alone, 1,337 species have been documented to date, with over 1,024,967 checklists submitted! It is important to note that not all data that is submitted will be displayed in the case of sensitive species, such as the Great Indian Bustard. This ensures that eBird data is not used for malicious purposes.

I encourage you to go birding today and enter a complete checklist on eBird during or after your outing! Always remember to keep a respectful distance from birds, and never use audio lures to obtain photographs or sightings.

THE GROWING VALUE OF CITIZEN SCIENCE

By Kevin Methuen

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An overview of the Canadian Arctic region

ASIATIC LION TO SUFFER

RESEARCH
PROPOSAL
STALLED



The research on Asiatic Lion corridors in Greater Gir area (Gujarat, India) by the Wildlife Institute of India (WII) has been stalled after the Gujarat government reportedly withdrew permission for it.

The research pertains to a study on meta-population dynamics, behaviour, and the ecological role of Asiatic Lions in the Greater Gir area.

The withdrawal of permission may well mark an end, in its present form, to the long-running study of Asiatic lions in Greater Gir area by scientists of Wildlife Institute of India. WII was the first research institute to radio-collar Asiatic lions outside the Gir protected area. The research team led by

Dr. Yadvendradev Jhala, present dean of Faculty of Science of WII, and Kaushik Banerjee, research scientist with WII, had radio-collared 20 lions between 2005 and 2014.

The Chief Wildlife Wardens in India, strong functionaries within the department of forest, are found recalcitrant in permitting such studies. Either they do not issue permission to experts or keep the case pending. The Secretary, Forest, seldom questions their delaying wisdom. The Forest Minister is usually found busy elsewhere. What is the fate for wildlife at a time when the country claims to be embracing the best mode of development? -- Editor

BECOMING A BEEKEEPER

By **Hartley Anderson**

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My start in beekeeping was largely unplanned. My son-in-law invested in a new type of beehive and began raising bees in the new hive he thus acquired. He took a bee keeping course and registered to become a beekeeper. It took quite some time before there was any honey.

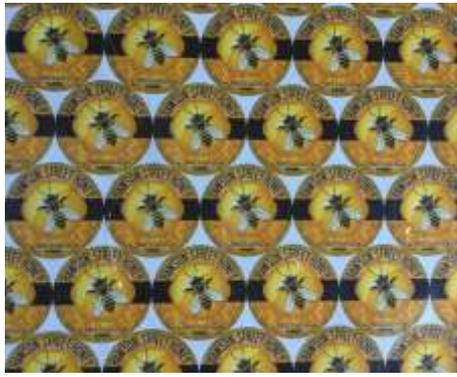
After a few months he arrived unannounced at our house with a hive and bees. There had been a swarm of bees in his street. He had caught it, transferred it into a cardboard box, and showed up with the bees and a hive, that had a brood box and one super of eight frames. I had become a beekeeper with a knowledge base of zero.

There followed visits to the bee supplies shop for a hood, gloves, a hive tool, and a smoker. The next step was to join the local Beekeepers Association.

It had been established for like souls who needed to learn. The hive needed to be registered with the Department of Agriculture.

Then, through all sorts of reading, YouTube clips, conversation with others, and googling all sorts of subjects, a knowledge base was started. Through such efforts, one learned how to inspect a hive, what to look for, and how to deal with negative issues such as hive beetles.

A month later the same son-in-law turned up



Rawson Street Honey

with another swarm and another hive so there was no turning back. I borrowed an extractor from the association and had some help for the first collection. There may have been fifteen kilograms of honey in this first harvest. We bought some jars and lids but have since acquired a number of people who save their jars for us. Now all jars are sterilized and recycled, and we are self-sufficient.

I bought an image of a bee from the internet and it formed the design of the label we use for the brand. The brand name is “Rawson Street Honey” after where we live. We have yielded about a hundred and fifty kilos the last few years and all the honey is given away, mainly to family, and friends. It is not for sale!

The quantity of fruit of other items we grow, including limes and passionfruit, has grown since the bees started pollinating our trees.

We have expanded the product range to Rawson Street Limes, and Rawson Street Passionfruit—two varieties, one summer and one autumn. The passionfruit is also used in our homemade ice

cream, and we could fairly claim it to produce the world's best passionfruit ice cream.

The beekeeping industry plays an important role in Australia's agriculture, Bees pollinate a number of important crops, including the expanding almond industry. Strawberry and cucumber production benefits in quality and size from bee pollination.

The quality of Australian honey is regarded as pure and high. Certain varieties are highly sought after overseas and specific types with therapeutic benefits or outstanding tastes carry a premium price. Manuka, leatherwood, and acacia are examples. Exports per annum range between nine and twelve thousand tonnes.

Beekeeping is a highly rewarding interest, not only for the product it gives, but there is a local micro benefit for the surrounding area, and a significant positive attitude attached to beekeeping by most people one encounters. Honeybees influence all types of vegetation and are a major benefit to world agriculture and the provision of food to feed us all.

Editor's note: Beekeeping has become an important wildlife conservation tool in several countries in Africa. Every year, villagers suffer crop losses to herds of invading elephants.

To stop the elephants, the villagers have begun to erect bee fences around their fields. The fences are strings of hives set several paces apart. For some reason, elephants are very sensitive to bee stings, and avoid coming near the hives. In addition, the hives yield homey that the villagers sell.

With this added income, some wildlife experts believe that the villagers are less likely to hunt for bush meat or engage in poaching.

**AN EXAMPLE OF
HOW SOCIAL
MARKETING CAN
REACH A SPECIFIC
AUDIENCE WITH AN
ENVIRONMENTAL
MESSAGE**



Former India cricket team skipper, MS Dhoni will not do any brand endorsements until life returns to normalcy in a bid to show solidarity with those suffering from the coronavirus crisis.

Patriotism is in Dhoni's blood, be it serving for the country (in defence) or farming the land, he has about 40 acres of farmland and he is busy growing organic crops like papaya, banana there. He has stopped brand endorsements and has said that till life comes to normal, he won't do any commercial activity.

The Chennai Super Kings (CSK) skipper returned back to his family in Ranchi from his training camp in Chennai after the Board of Control for Cricket in India (BCCI) decided to postpone the kick-off of the 2020 Indian Premier League (IPL) until further notice amid COVID-19 scare.

He has been spending family time at his Ranchi farmhouse with daughter Ziva and wife Sakshi.

Shambhu Nath Mishra, Chief Technical Officer

of the Institute of Forest Productivity in Ranchi, said that it was a great initiative by the cricketer.

He said, “Organic farming reduces pollution, improves water conservation, decreases soil erosion, increases soil fertility and saves energy. Also farming without pesticides is life saving for birds, animals and people who live close to the farms. It is a great initiative towards fighting the effects of global warming”.

Great example, bravo Dhoni. -- Editor

LIVESTOCK INSURANCE ENSURES THAT HUMANS AND WILDLIFE COEXIST PEACEFULLY IN SPITI VALLEY

By Seema Sharma (Ms)
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Snow Leopard (Dr. Savita, Chief Wildlife Warden & PCCF, Forests, Himachal Pradesh)

India's first case of a rescue of a small snow leopard cub and its release to its mother's habitat unfolded in Gue village of Spiti Valley in Himachal Pradesh last month. Some 43 sheep had been killed over a period of four days consecutively. Therefore, the wildlife department had put up a cage outside a sheep pen in the village in which the cub got trapped on May 1, 2020.

According to Dr Savita, Chief Wildlife Warden and Principal Chief Conservator of Forests of Himachal Pradesh, the villagers will be compensated with an amount of Rs 3000 over the loss of a sheep. People in some affected villages will be provided a predator proof corral or sheep pen to safeguard their livestock from predators.

The incident exposed the harsh realities of livestock loss due to predation and as a result loss of livelihood for the aggrieved herders. The probability is always high that repetition of such incidents can trigger human-animal conflicts and retaliatory killings of predators by locals.

Abhishek Ghoshal, a wildlife biologist was associated with Nature Conservation Foundation, Snow leopard Trust and Wildlife Institute of India for snow leopard conservation till two years ago.

He bared the grey area of subsidy economy saying, "Locals have been sharing the habitat with the animals for centuries and millennia. Elderly herders who had hardly seen government machinery were absolutely fine to lose the entire herd because of a harsh winter, avalanche, or predation of snow leopards. They accepted it as part of their life just like any other occupational hazard where they had to start their lives from zero."

He further added, "However relatively young herders seem to have lost that temperament and resilience somewhat. They tend to think that the government should provide for everything. Subsidy economy is part of that.

Reality is that government supported schemes may come and go. In that case, the locals start blaming the animals and government, and may resort to retaliatory killings of the predators."

He admired the livestock insurance project of Nature Conservation Foundation (NCF), running for over two decades in snow leopard landscape. Through this project, the affected villager is monetarily helped with compensation from the premium pooled by villagers and NCF through a community partnership.

Ajay Bijoor, assistant director in the High-Altitude Conservation Program with NCF, explained, "The villagers themselves fix an annual premium of insurance on the animals they have. NCF too contributes the same premium amount for a period of first five years. We recommend that the villagers give compensation to the aggrieved person from NCF's portions so that their own money accumulates as corpus fund over the years."

He said that NCF came forward to accord its financial assistance repeatedly even after the expiry of the first five-year term in the case of a few villages where the corpus fund was depleted due to frequent incidents of predation. NCF has contributed around three lakh rupees to this cause till this date.

"The introduction of the livestock insurance scheme is aimed at instilling a sense of ownership among villagers for top predators like Snow Leopard or Asian Wolf or Brown Bear. They must feel that these are their animals which have killed their sheep, and not the government's."

He said that the communities are resilient, and they have their own mechanisms to deal with these shocks of animal killing. Though they become unhappy with the consecutive attacks, they have survived alongside for years.

He also told that since it is the collective fund of the villagers, the possibility of false claims too diminishes.

"It is the villagers who themselves decide the premium amount of a species. For instance, the premium for a Yak is Rs 1500 while the compensation over loss of a Yak is Rs 30,000 in many villages of Spiti. The amount was doubled a couple of years ago, keeping inflation in consideration," he said.

In the Spiti Trans-Himalaya, intensive livestock

grazing is considered to be the vital reason for out-competing wild herbivores from the range lands, and, as a result presumably intensifying the levels of livestock predation by the Snow leopard (*Panthera uncia*) and also the Wolf (*Canis lupus*).

The programme has propelled villagers in not persecuting carnivores or driving them away from kills. Over 100 families in villages like Gete, Tashigang, and Kee, Chichim of Spiti and, locals in four villages of Gya-Miru region of Ladakh are benefiting from the livestock insurance programme.

"NCF's self-help agency Snow Leopard Enterprise helps villagers in honing their skills in making handicrafts. These are marketed by NCF," Bijoor said adding that this additional means of livelihood and income comes handy in winter when the movement of locals gets restricted due to heavy snow fall.

Another example of an effective insurance scheme has to do with Chamurti Horses. Sagnam, the largest village in Pin Valley in Lahaul and Spiti district, is homeland to the highest number of the Chamurti Horses in India. These horses were once used to carry products for trade across the Tibet border. After the Sino-Indian war, the trade ended, but demand for these horses grew further, with Indo-Tibetan Border Police coming forward for their purchase.

The 300-year old Lavi Trade Fair held at the village of Rampur Bushar, a few km away, also gives good returns to the villagers on sale of these majestic equines. People of this Himalayan hamlet have carved a niche in not only rearing but also running their own insurance scheme for these steeds.

Thuktan Tander, local horse owner said, "We had to travel all the way to Kaza to make several rounds of government offices to complete formalities in order to get compensation amount for the death of one precious horse.

But now thanks to NCF's livestock insurance program introduced since 2013, we are able to provide instant compensation to the affected villager in such matters."

It is easy to miss the value in a scrap of desert. Lanzarote is a volcanic island, part of the Spanish island chain known as the Canaries that lies off the west coast of Africa. Winds can blow in and sweep the island's topsoil into the sea. One such mid-20th century storm drove many locals overseas. It has taken inward migrants to appreciate the one scrap of true desert that remains, and fight to conserve it.

Carmen is Czech-Peruvian and runs Eco-Insider tours. On our visit in December 2019 she was working to turn it over to the charity, Desert Watch, whose volunteers take this patch of rare and endangered desert known as El Jable into their care. The charity had just signed an agreement with the local county, that own 40% of the land (much of it taken in lieu of unpaid taxes), to keep watch over the land and perhaps be given a building as their HQ.

Adolfo, a geologist by training who left Venezuela with the recent mass from that country, led our half day bird watching tour. The eco activity of such tours raises awareness of this fragile landscape, funds its preservation, and shows the locals that this forgotten part of their country has economic value. Adolfo was cheerful and talkative in his flop white brimmed hat, a spray of greying hair and beard, and a cheery tent of a shirt emblazoned with an image of a tropical forest.

Houbara Bustards are the endemic stars of such a journey. These bustards are actually thriving on the island – not through conservation but through a decline in the Spanish economy since 2007. Because of this decline, nobody is coming to strip the Natura 2000 site of its sand.

CONSERVING THE HOUBARA BUSTARD IN THE LANZAROTE DESERT ON THE CANARY ISLANDS

By Martin Goodman

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The current pandemic has knocked the Spanish economy and the island's tourist industry sideways so is likely good news for the birds. The desert is scarred by the tracks of jeeps and trucks, tracks which our own jeep follows. The area is potted with quarries – sand is taken down to the firm pink level called the earth layer which is seen as waterproof by the farmers, because the water in the soil does not sink below it. This quarrying is illegal, with no attempt at land restoration afterward. On weekends the

volunteers of Desert Watch take up watching stations, for this is when trucks come on their raids.

The desert sand is organic, from an ocean bed made up of the bodies of tiny crustaceans. This makes the desert fertile; in the silica of the nearby Sahara, crops can grow from absorbing the humidity. The desert fields are planted with sweet potato (intense and organic because they grow one annual crop slowly, white fleshed, without water) and squash. When one field needs to lie fallow until its humidity is restored, farmers know to move crops to other fields.

Our bird quest brought us our first ever sighting of Barbary Partridges – normally these birds run in flocks of a dozen or so but here there were just three as we were into the six week hunting season when, two days a week, most are shot. Since these partridges were first brought in from Africa to be hunted, while rare they are the one bird now licensed to be killed. The desert's other hunting is with dogs and ferrets for rabbits. There are no natural predators in this desert.

We spot eleven Houbara Bustards in all; a couple show the elongated black feathers at the base of their throat. These are males, getting set to dance. These Houbara bustards were pecking yellow flowers from the shrubs – when broken open their faeces smell of these blooms. For one week a year they eat beetles which contain some acid which deparasitizes their stomachs.

Conservation measures should be in place for these birds but the only one obvious is a battered sign announcing Houbara Bustard territory. The



Urbanscape

volunteer group meets regularly with the region's mayors where all is promised but nothing delivered. One mayor is a professional rally driver – car rallies and quad bikes are frequent across the desert. 'Because the wildlife has no votes,' I am told, 'and folk who raid the land do have votes, mayors choose to pay the fines for not bringing in regulations. That way they maintain their electoral base and positions.'

Trumpeter Finches, the males with pink breasts and orange beaks, picked food from the ground. They emitted little two note tweets of songs but then their surprising long farting trumpet calls. Stone Curlews stood in a stony field, their bulbous eyes like yellow bruises. As we approached, they chose to fly just a little away, to keep a distance. The camouflage of their colouring saw them easily vanish in the desert. The same with Cream Coloured Coursers, moving like transparent shadows across the desert.

Frequent sightings among the birds were of Southern Grey Shrikes, for they were beginning to pair. Their diet was changing from mice and lizards to be much more insect based. These shrikes had learned to build their nest out of tampons by the side of the road, curious white strands sticking from it

Desert Watch is linked with Chester University – students come over each year to be given meals and board while they do field research. One masters student is looking into the way one discarded can changes the whole ecology.

Lizards and insects can get in to such a can but not out again. Ravens have learned to open such cans for the feast inside.

Near the walls of a farmstead, Hoopoes, with their splendid feathered crests, perched on a fence and checked out nesting territory. Through the air came a Kestrel, a Barbary Falcon. On the ground Short Toed Larks remained almost invisible, just one singing female in view and surrounded by just the calls of her species. The larks' flight sees them pulled high from where they dart to the ground. Bertholot Pipits are a similar size and colour but wag their tails and move in curved flight. One broad winged Brown Buzzard flew by, scaring Cream Coloured Coursers into the air.

After fifteen months of drought it had just rained for three weeks. To my view this desert was brown, but it was in fact showing off its greenery, a light wash of cover above ground. Through the spring the sand was set to blossom into a sequence of flowers. Part of Desert Watch's brief is to alert the locals to the treasured web of life that makes its home in these forty square kilometres of desert sand. People despoil the landscape, but they also have the power to take other humans by the hand and walk them into the wonders of nature. It makes for a good human game. Approach a desert, expect dry nothing, and discover the rare forms of life that made this landscape home before humans ever got to walk the planet. It gives you a tender view of life on Earth.



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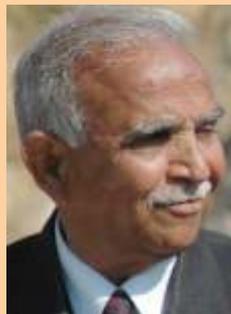
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बन बैठा मकरन्द सुमन सुरभित है जग में ।
वन्यजीवन और प्रकृति संरक्षण उसके हग में ।
पर्यावरण सुधार हित करता है संघर्ष ।
निस्वाथ उपकार से वर्धन होता हर्ष ।

आज दिवस पर्यावरण मुखरित हर्ष-उल्लास ।
विविध जीवन और वनस्पति नहीं होयगा द्रास ।
नहीं होयगा द्रास धारणा पक्की मन में ।
जीवन होगा सुखद मोर नाचेगा वन में ।
पर्यावरण संतुलन जीवन सुरक्षा काज ।
चलो हर्ष के साथ हम पेड़ लगायें आज ।



Composed by
Vishawambhar Modi,
Founder Member of TWSI,
on 5 June 2020,
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Bird WATCHING AT JAIPUR ARMY STATION

By Ms. Mrinalini Deshpande
Email: mrinalini288@gmail.com



Indian Pitta (Mrinalini Deshpande)



Yellow-crowned Woodpecker (Mrinalini Deshpande)

It was June 2018 that we arrived in Jaipur. My husband was posted to Jaipur from Delhi. Though he stayed in Delhi just for over two years, I had stayed there for about five long years along with my younger one. From the initial fear that I had always felt of the capital city of India, over those five years I had started to grow fond of it. Places like Nehru Park, the beautifully done landscapes on the sides of the roads, and the greenery in the cantonment areas, all made up for the loud behavior of the people. I enjoyed my walks in the Bio-diversity Park in Vasant Kunj, near the Shankar Vihar Army Cantonment. With so much greenery around, and a beautiful Nature Park within the campus, I was lucky with my bird watching and photography. I captured the Redstarts, Plum-headed Parakeets and a Shikra. After 25 years of my life with an army officer, one maxim that I had come to believe strongly was --- Change is the only constant in life.

So, on the 19th of June two years ago, while driving to Jaipur my mind was flooded with thoughts, most of them apprehensions about the new environment, the city, and other things. As we entered Jaipur, I was surprised to see the greenery around the walled Pink City. It further delighted me when I saw the house allotted to us. Though relatively a new construction, it was a bungalow, reminding me of my first house ever, after marriage in 1994. That was in Meerut in the area called British Infantry Lines and was about 170 years old. It was a home to many wild living things besides us! So, I took an instant liking to our new abode in Jaipur. It was surrounded with full grown trees like Ashoka, Gulmohar, Neem, Yellow Flame, and even wild Gooseberry. After a few days of settling down in the new place, I very much got used to waking up to the chirping of birds, reminding me to begin with some bird photography in and around the bungalow and the adjoining area - the 'Haldighati' as it is called. One thing I love about our armed forces is the nomenclature. They come up with such interesting and inspiring names, reminding us of the battles pertaining to that particular area or region.

Soon I started waking up quite into the dawn, to the call, or may I say at times the cacophony, of peacocks. Among the most frequent visitors are the Starlings of all kinds, the Rosy Starling, the Brahminy Myna, the Common Myna and the noisy seven sisters (Saat-bhai). Then there were beautiful pairs of Sunbirds, Hawk Cuckoo, and Doves. My first bird watching trip was to the lush green Golf Course close to our house. On a holiday in the August of 2018, in the wee hours I



Brown-headed Barbet (Mrinalini Deshpande)

walked the entire area on foot with my camera and was rewarded with a few colourful birds like Bee-eater and the Indian Roller. Of course, there were Doves and Drongos, Parakeets, even the mighty Alexandrine and yes, Francolins too. I loved capturing those two birds, which are a common sight in Jaipur Military Station.

The Green Bee-eater is swift, always on the look-out and I love its agility. Its plumage is such that it camouflages well. The Indian Roller is a larger bird and one should watch it in its flight to admire its beauty. And if you are fortunate to watch the colourful span of its wings, I promise that you will instantly fall in love with those shades of blue. Those hues of blue range from purplish blue to a band of pale blue. Its tail is sky blue with a band of Prussian blue. The central feathers appear dull green. What a combination of colours. But yes, you can see them all only in its flight, with a full span of wings spread out. I am still trying to catch one such photograph. I need to be patient. Patience is the most important key factor if you are keen towards birdwatching.

After that special trip to the Golf course, I was amply rewarded at home garden with interesting species like Black-rumped Flameback, the Asian Grey Hornbill, The Greater Coucal, Rufous Tree-pie, Yellow-footed Green Pigeons, Magpie Robin and various starlings. I don't know why but since childhood I had heard people say that a sight of The Greater Coucal (the Bharadwaj, as I have known it since childhood) brings good luck. So, my father, during his stay with me was very happy to have spotted it almost every day. One important thing about birds which my distant uncle, Nirmal Dada Gyanani, who was a nature lover and into birdwatching and conservation, had told me was that the same individual birds visit the areas again and again. So next time you spot a particular species around your house, do keep a watch.

There is a tree across from the Golf course,

outside a house, where I used to spot two or at times three Spotted Owlets every morning. After having pointed it out, my husband also started looking out for them on our walks. Sometime in late January this year 2020, in the morning hours I was thrilled to spot a huge black bird basking on the Eucalyptus tree which I thought to be a Tawny Eagle. On re-checking it turned out to be the Oriental Honey Buzzard in my garden, a large bird of prey.

It was in the summer of 2019, that I joined the summer camp for army school students, nearly 200 altogether. It was a session devoted to bird watching. A city group had been invited to assist, and we all moved into the grass farm nursery in different batches. Our students learnt the names of different species of birds and could identify them. The children also began to realize the importance of conservation. It was a learning experience in many ways for me personally as well. It was the first time I had come across such a diverse group of volunteers who were working in this field so enthusiastically and so efficiently. They managed to create awareness and curiosity among the school children. It was a delight to interact with this group. Harsh Vardhan happened to be amongst them with whom I interacted a bit more on bird related aspects. I met the same group during August 2019, this time at the Sapta Shakti Nature Park, especially created for nature conservation by the South Western Command personnel. It used to be a barren piece of wasteland but got harnessed in to a nature park within a few months. As part of this project a couple of wetlands were especially created to draw home more and diverse species of birds. To my delight I spotted the Red-naped Ibis at this habitat.

Since then, I have regularly been capturing birds on my Sony HD, the camera that I had bought specially for birdwatching in 2015, with an Optical Zoom of 50x. Now that we have completed two years in this beautiful Pink City, which I enjoyed thoroughly, exploring in the early mornings on my cycle, we are about to move out. I carry along with me the precious memories of this place and my prized possession of some beautiful photographs of birds. I also feel extremely fortunate to have met Harsh Vardhan for whom I have a deep respect. We need to wake up, look around and learn to value our environment. For, if not today then when? The nature is giving us a warning in the form of Covid-19. It should be a wakeup call for us. Let us take a serious note of conservation, the only way ahead towards harmony on this beautiful planet that we call ours.

VEDIC CONSERVATION CONNECTIVITY, INTERESTED?

Dr. Gulab Kothari is being introduced to readers of Conservation Times to let them know that here is the Editor-in-Chief of Rajasthan Patrika daily who communicates with millions of readers through his front-page editorials, which invariably dwell upon nature conservation ethos.



He is a highly committed journalist and a sensitive writer. His writings reflect agony of change and transformation, providing new insights for a balanced life. They are an excellent example of positive outlook on life and holistic thinking.

He has authored more than two dozen books in Hindi and English on various aspects of human life and journalistic communication from a Vedic perspective. He is prominently known for his classic

'MAANAS', four volumes of which have already been published. It inspires the young and old to live the good and balanced life.

He was awarded D.Litt. in philosophy by the Intercultural Open University, the Netherlands, in 2002 and his dissertation has already been published with the title: Body Mind Intellect. In view of his contribution to social excellence a special honor in the form of Doctor of Philosophy was conferred on him in 2008 by OkiDo Global Research Institute, Italy.

He continues to delve deep into the ocean of Vedic literature that in essence is nature conservation. His writings are available at: <https://www.patrika.com/tags/gulab-kothari-article/> and his email is: gulabkothari@rajasthanpatrika.com

– Editor

THE JINXED GENES

Prachi Tiwari

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Email: tiwariprachi077@gmail.com

It was a chilly winter evening.

There was frost in the misty air and Hazel Grace could feel it.

She always felt evocative around the merry Christmas Holidays.

How, she'd come to the park and build a snowman with her "Daddy Dearest".

Alas, he was no more.

Poor man battled with cancer; with life and death.

The only hope for him to live was Hazel Grace who too had cancer.

She used to refer to it as 'Jinxed genes'.

Until, one day Fred Andrews as that was his name passed away eluding the brutal reality of life, of the world forever.

Oh, how Hazel Grace came and sat beside the swing feeling the nostalgia and the cancer both, eating her up from the inside as if life was ending.

Little did she know this was her last Christmas, her last visit to the park and her last breath unlit She lay down on the icy snow and finally climbed the staircase to heaven.

But, why oh, why was she feeling melancholy, isn't this what she had always imagined?



There is no age to start it

To see her father back again?

Everything just seemed irrelevant in that split second.

She wanted her wish back.

She would live in all the adversity life threw at her, all she wanted to do was live.

Unfortunately, the world isn't a wish granting factory, you don't always get what you wish for. And that was the last of Hazel Grace the world ever saw...

Note: Prachi's piece is being used to encourage the young student-writer though it has no connectivity with conservation. She is suggested to send in conservation related pieces for next issues and hope she would spread a word about Conservation Times in her school. -- Editor



Painted Stork pair at KN Park (Harsh Vardhan)

KN PARK RECEIVING ATTENTION

The Forest Department, Rajasthan, at long last, has come out with a new Management Plan for Keoladeo National Park, Bharatpur, India, with a view to redressing this beleaguered habitat of immense international repute. KN Park is suffering from long authoritarian neglect, lack of flowing water, besides numerous problems caused by its nonchalant management.

The Plan is a ten year long perspective aimed at tapping couple of new water-sources for the 29 sq. km habitat and shaving off massive growth of invasive vegetation. Unearthing silt load, deepening main Blocks, re-shaping Mounds, etc., are among other proposals being mooted. It lists certain mammals to be reintroduced but is silent over reintroducing the core-content of aquatic vegetation which has become extinct within the aquatic habitat owing to impact of invasive species. The role of local communities also has been spelt out in a muted mode.

The Plan has been floated for discussion among experts to seek consultation and then to be put on anvil.

Best wishes. -- Editor

BHILWARA GROUP SETS NEW EXAMPLES IN SUSTAINABLE DEVELOPMENT

An article and interview with Riju Jhunjhunwala, Chairman of Rajasthan Spinning and Weaving Mills Ltd. by Narender Mudgal, CSR Head LNJ Bhilwara Group and Jawahar Foundation.



Riju Jhunjhunwala

Narender Mudgal: Riju Jhunjhunwala, as Chairman of Rajasthan Spinning and Weaving Mills Ltd you have set up a new organization called Jawahar Foundation, and you chair it. I know that you have positive views on how to enable the Indian society to live in a sustainable manner through CSR (Corporate Social Responsibility) support from business houses. Please tell us a little about the LNJ Bhilwara Group and CSR.

Riju Jhunjhunwala: The LNJ Bhilwara Group is a band of upstanding corporate citizens who have devoted themselves to fulfilling their commitment towards society. The aim of the company's CSR initiatives is to ensure holistic development of the communities. These initiatives aim to assign priority to activities pertaining to inclusive growth of the society. Key areas of CSR are Education, Skill development, Healthcare, Community, and Sports. We also work for the protection of our national heritage, the environment, art, and culture.

Narender Mudgal: It is believed that both, the company as well as the community benefit from the CSR activities and initiatives undertaken. Do you subscribe to this theory?

Riju Jhunjhunwala: Earlier when this whole rule of CSR came, a large portion of corporate India was against the idea of being forced to spend money on social causes. However, from the beginning I believed this is a great initiative. Until or unless we, as corporate India, are forced to spend a certain amount of money, we will not spend that much money on such issues.

Every company, be it big or small, is donating to this cause. It is a lot of serious money that is coming to good use, and I completely support CSR initiatives to sprout grass root level programmes. The whole of corporate India should welcome this move since the money is coming out of profits, so it hurts no one.

Narender Mudgal: Please tell us a little about the history of CSR and how it works:

Riju Jhunjhunwala: Even before the rule of CSR was applied by the government, my grandfather (Mr. L. N. Jhunjhunwala), philosophically, was of a philanthropic bent of mind. Without these rules also, he had been doing a lot of CSR activities in his own way. Starting with Ram Krishna Mission or establishing schools at our manufacturing locations or donating to several causes such as floods or natural calamity, etc. But in the last 10 years, we have been doing CSR activities in a very structured manner. Some of it is being done on the plant level, as we have a large workforce working in the plants. So, we try to engage and work with them and their local villages like eye camps, water camps, etc. In the last two years, our company's CSR budgets have increased, and we are looking at doing CSR in a broader manner by partnering with organisations that have very good command on ground so that no money goes to waste.

In Rajasthan, we are trying to build our own network, but in places where we do not have our own networks, we partner with good companies such as Akshay Patra and Apna Ghar. We have tied up with Apna Ghar to start another branch in Madhya Pradesh. Apna Ghar aims to rehabilitate the homeless people on the streets who have no one and provide them with healthcare services as well. Other projects we are involved in are Global Parli which is about transforming villages and Delhi Langar Seva Society which aims to provide hunger relief to those in need.

Narender Mudgal: I know you have set up the Jawahar Foundation and made functional five skilling centres for women. I would like to know more about these institutions.

Riju Jhunjhunwala: The idea is to do as much as possible directly to empower the village people. In India, the idea has always been that wealth will be passed from generation to generation. Even for

me, all my wealth will be passed onto my next generation. But, in the US, you have people like Bill Gates who pass on 10 per cent of their wealth to their children and 90 per cent to charities. As a society, we are not built that way. So, this forced way to ensure we do good for society is great. Tomorrow, if the government increases the 2.5 percent, we must contribute more. The gap wouldn't matter in comparison to the tremendous momentum on the ground. I think things are picking up and corporates are realizing this is the right thing to do.

Narender Mudgal: Do you have any advice for our readers?

Riju Jhunjhunwala: Every company should just continue doing CSR activities in their local areas. My vision is to grow Jawahar Foundation and channel everything through that and really grow it into something impactful. Ground level problems should facilitate development; the five objectives for me are the following: water scarcity, skill development, tree plantation, basic education especially for the girl child, and unemployment. Word of mouth should be a strong encouragement for spreading knowledge about these causes and the initiatives taken in their interest.

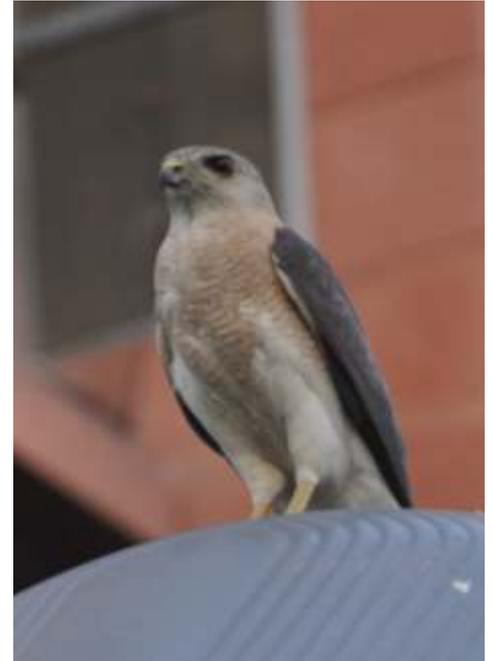


A siras (Albizia lebbek) tree being planted by Riju Jhunjhunwala, Chairman of Rajasthan Spinning and Weaving Mills Ltd (Narender Mudgal).

WINNERS OF EARTH DAY PAINTING COMPETITION



Pallavi Mishra (right) and Bhakti Hariani giving away awards to Navya Gupta, an MGD student.



A Shikra (A. badius) also present at the scene

Group I (1st to 3rd): Yuvraj Soan, II B, Jaipuria Vidhyalaya, Priyadarshini, III, NIMS International School, Aaryan Meena, I, Geeta Global School, Jaipur.

Group II (4th to 8th): Navya Dubey, VII B, MGD Girls School, Janvi Khandelwal, VII, MSMSV, Shlesha Pandey, VII A, Jaipuria Vidyalaya.

Group III (9th to 12th): Aanya Mehta, XI, MGD Girls School, Navya Gupta, IX, MGD Girls School, Jaipur, Aastha Mohan, IXA, MGD Girls School, Jaipur.

Dr. G.S. Bhardwaj, Additional Principal Chief Conservator of Forest, Rajasthan, gave away

awards to above students whose paintings were adjudged the best in a competition organised on 50th Earth Day (22 April 2020) by TWSI. The event was staged at Trimurty's Aurum, a multi-facility complex show casing large photographs of birds of Jaipur landscape in its foyer, gallery, hall, and at all floors, a unique conservation status having been attached to this living plaza in heart of city of Jaipur.

Luck: A bird was found perched over a lamp post in garden watching proceedings of this event as Dr. Bhardwaj was heard remarking, it is a Shikra, *Accipeter badius*. Parents joined some students while only father received prize

avoiding daughter to reach in view of the virus imposed restrictions. Dr. Bhardwaj addressed the gathering to exhort them to join conservation to make own life better.

Anand Mishra, President of TWSI, staged the event. Aurum is his creation.

Ms. Pallavi Mishra, who leads some prominent educational institutions and also lives in this housing complex, and Ms Bhakti Hariani, who has a statue making unit and also a resident here, also joined and gave away awards. Nishant Shukla conducted proceedings conveying to the ladies that they would be most welcome to play



Dr. G.S. Bhardwaj (right) giving away awards, Y.S. Soin (middle) and Nishant Shukla (left) admiring.



Anand Mishra giving away awards to Janvi Khandelwal (left) & Feed Box working being explained to an MGD student and her mother by Nishant Shukla (right).



Dr. GS Bhardwaj chatting with recipients.

their roles at the 24th Indian Birding Fair scheduled to be held in early February 2021 at Man Sagar lake, Jaipur.

More than 600 students participated in the competition, an on-line event, coined by Anand Mishra. Nearly 200 were short listed and Nishant assumed role of the judge. House Sparrow Nest Box, Feed Box, bird book, a certificate and an especially designed mug were the prizes for each participant.

—Editor



Students watching birds at the Indian Birding Fair staged annually at Man Sagar, Jaipur, India



Each year, the US conservation organization, the National Wildlife Federation, honors extraordinary conservation heroes with their Conservation Achievement Awards. The awards feature a realistic reproduction of a Whooping Crane. Shown here is the award being given to noted ornithologist, Salim Ali, by Ed McCrea in 1983 at the Bombay Natural History Society in Mumbai. Ed McCrea is Chairman of Editorial Board of the Conservation Times and President of EECG. On left is Naresh Chaturvedi, in charge of the Museum at Bombay Natural History Society (BNHS). (Harsh Vardhan archives)

HIGH COURT: FIND OUT CAUSE OF DEATH OF BIRDS AT SAMBHAR LAKE



A female Shoveller being rescued at Sambhar lake

Rajasthan High Court's Mr. Justice Prakash Gupta and Mr. Chief Justice, Indrajit Mahanty have found that the "State (of Rajasthan) and its agencies are not in a position to identify the cause of death of birds at Sambhar Lake and in particular, it is averred (in paragraph 7) that although postmortem was carried out on birds, the cause of death of those birds could not be assessed due to putrefaction. However, it appears that postmortem report of the birds... indicates the cause of death as 'viral infection' without indicating the nature of the virus which may have caused the death of the birds.

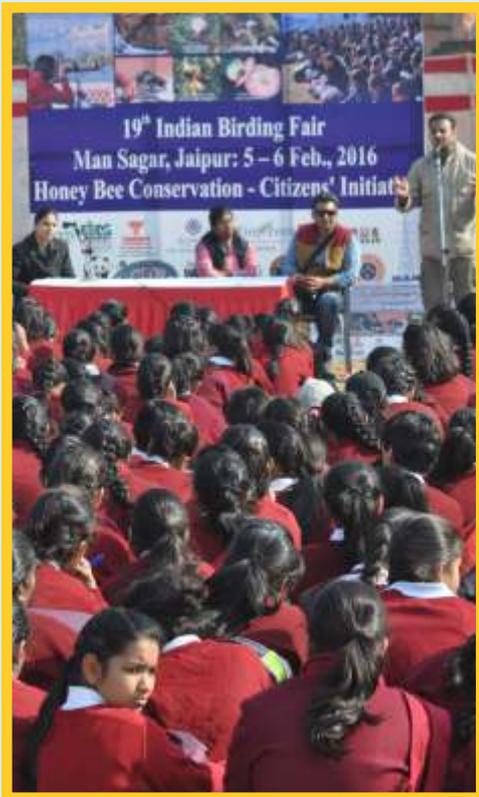
"Learned Amicus Curiae highlighted the necessity to take immediate steps in view of the fact that no sooner the ensuing rains bring water to the Sambhar Lake and other wetlands, migratory birds will start to arrive

and therefore, necessary precautionary steps need to be taken to try and ensure that similar deaths do not take place in the ensuing season (2020). Accordingly, we call upon the learned Additional Solicitor General, learned Advocate General and learned Amicus Curiae to suggest the names of officers and/or scientists, who may be deputed to carry out inspection of entire Sambhar Lake and find out the impact of salt forming by the Sambhar Salt Limited and/or other lessees along the coast of Sambhar Lake and also to identify any illegal salt forming that is taking place in the area."

Thousands of migratory birds had perished at Sambhar lake, a Ramsar Site in Rajasthan, India, during 2019 and the High court of Rajasthan took a suo moto cognizance of it appointing Nitish Jain as amicus curie. The case is continuing. -- Editor



Fair 'dedication'?



The 24th Indian Birding Fair is poised to be held on Thursday 4 and Friday 5 February 2021 at Man Sagar Lake in Jaipur, India. Joined in by good number of students, teachers, citizens and bird experts, the event promotes community participation in conservation as a Citizens' Initiative. It is staged annually by TWSI (Tourism & Wildlife Society of India) in association with quite a few government and non-government organizations.

Each Fair is dedicated to a wild species or habitat facing problems e.g. the 23rd Fair was dedicated to Indian Bustards.

If you would like to suggest a 'dedication' for the 24th Fair, please do so. You are welcome to join hands with us to support wildlife. No full stops here for conservation.

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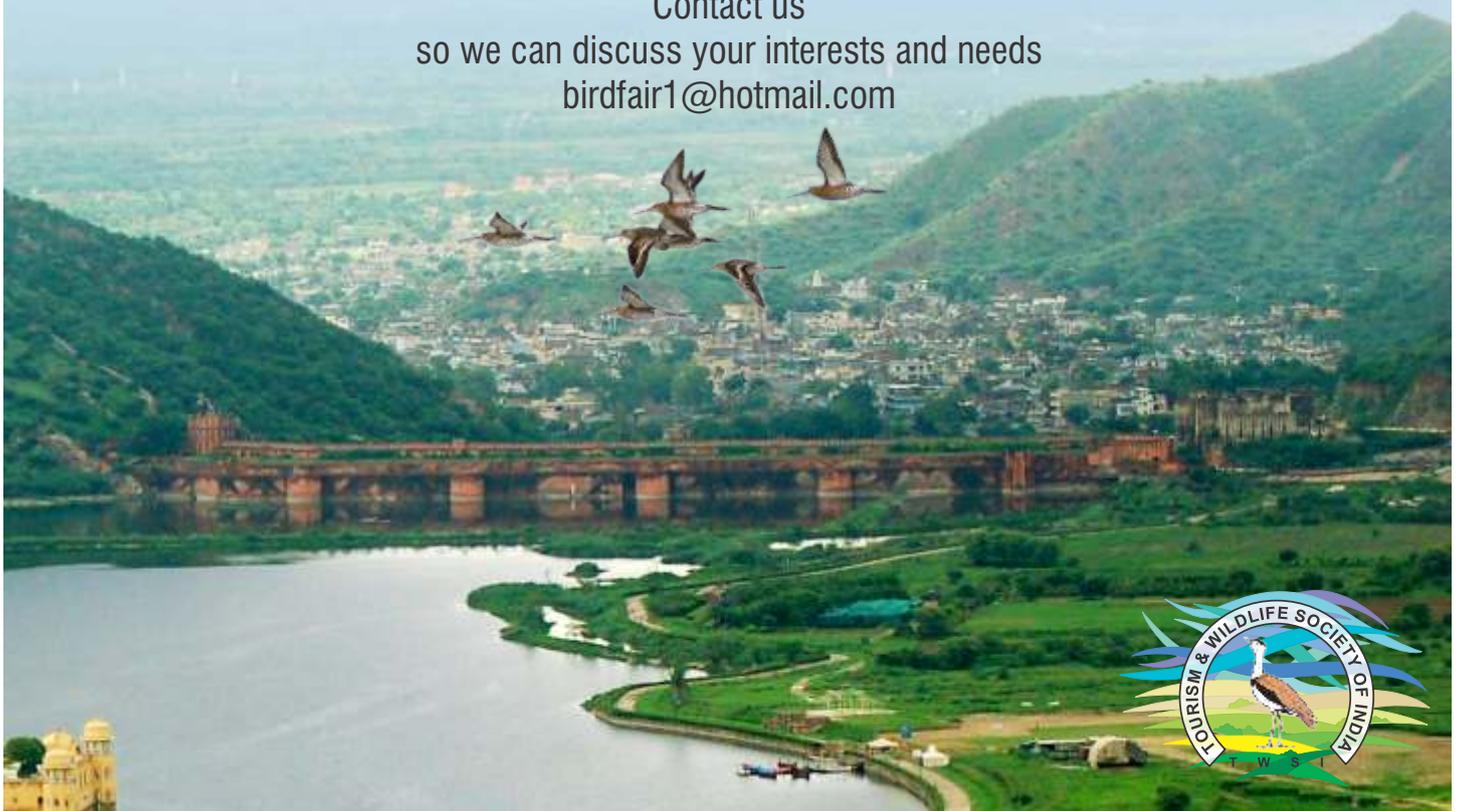
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Man Sagar lake's dam, the venue of Indian Birding Fair since 1997

GREY-HAIRED GLOBAL BIRDER SUPPORTS CONSERVATION EFFORTS

By Robert Oates

Email: Robert.oates1@btinternet.com

Since retiring from paid employment in 2014, Robert Oates has been pursuing his dream of exploring as many of the world's bird species as possible. In February of this year he published 'Grey-haired Global Birding – exploring the world's birds in later life'. The book is an account of Robert's recent journeys to Ethiopia, California, Colombia, Malaysia, and Scotland. Those journeys took his global list of birds seen to over 2,000; almost one fifth of all the bird species on earth. In the book Robert describes the birds he found in each country, with information on their distinctive characteristics and conservation status. His aim was to discover just how many of the world's bird species are surviving and what help they need in the face of all the pressures that humans put on them. Along the way are evocative descriptions of the places visited and warm descriptions of the many people who helped with the author's quest. The result is an optimistic analysis that most if not all the bird species in the world can be saved, making efforts to safeguard them worthwhile. But more action needs to be taken quickly. To help fund that necessary action, all profits from the book will be donated to the Birdlife International 'Preventing Extinctions Programme'.

One reviewer has commented that he is very impressed by this fast-paced and richly

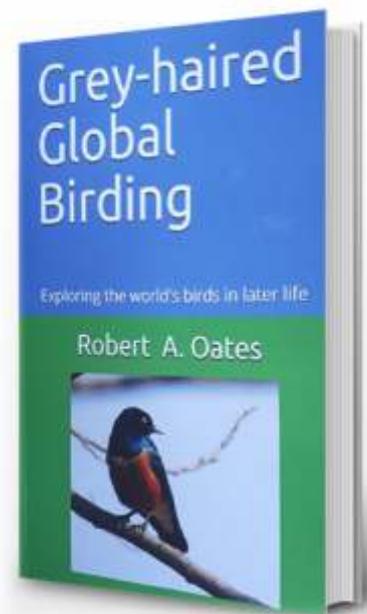


Rob Oates at RSPB's Minsmere (Harsh Vardhan)

informative book. Describing it as exhilarating stuff, with only a few downsides such as heat threatening to "fry" the authors brain and showers with no water. While it is great to read about his encounters with a spectrum of exotic species, including bee-eaters, shrikes, flycatchers, plovers, eagles (and a particularly elusive yellow-billed magpie). There are also some handy hints about how to see birds in the countries visited, plus all-important information about how much the individual trips cost.

Another reviewer has described the book as an incredibly detailed account of the birds the author encountered on his various trips abroad. Saying that it provides a very interesting account of the different approaches taken to organizing trips to different continents - financial constraints, use of guides, accommodation, what equipment to take and so on. The euphoria of discovering new species is vividly spelled out. He goes on to say that the book is a good mixture of actual bird watching experiences, interspersed with the author's own thoughts on aspects of evolution, politics, and conservation, as well as the kaleidoscope of fascinating individuals he meets up with. Finally, he notes that the book will appeal to the keen bird watcher who not only enjoys chasing down new species but is also concerned about the fate of bird populations across the globe.

The book is only available to buy online from the Amazon Bookstore in paperback at a cost of £12.28 sterling (1,170 Indian Rupees). For anyone unable to travel to see the birds of other countries, this book is a good alternative way to experience them.



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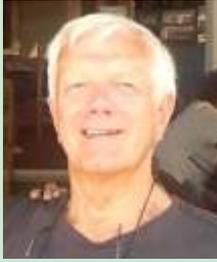
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EDITORS for Conservation Times



Anderson, Hartley

Hartley Anderson is a Sydney, Australia resident who, after more than fifty years in sales and marketing roles, has decided it was time to pursue leisure activities.

His recent and new activity which is relevant to conservation is beekeeping. He has a strong interest in India.



Goodman, Martin

Martin Goodman is an award-winning writer and publisher based in the UK. His book *Client Earth* told the tale of eco-lawyers on their global battle to save the planet from environmental collapse. He is Emeritus Professor of Creative Writing at the University of Hull.



McCrea, Edward
Chairman of Editorial Board

Ed McCrea is President of Environmental Education and Conservation Global, a US nonprofit conservation organization. Over the last fifty 50 years, he has worked in environmental education and biodiversity conservation at the local, state, national, and international levels.



Methuen, Kevin

Kevin Methuen was born and raised in Edmonton western Canada. He is passionate about climate change, conservation, birds, and mammals. Kevin is working closely with Inuit organizations, and Inuit harvesters to manage populations of caribou, muskox, wolves, grizzly bear and polar bear.



Sharma, Manoj

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Seema Sharma is an independent journalist based in Chandigarh. She was formerly with the Tribune and the Times of India. She writes on wildlife conservation and environment and is a fellow of CMS-IHCAP fellowship on impact of climate change in Trans Himalayas.



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Wildlife conservationist and writer, served for Bustards, Siberian Cranes, started the Indian Birding Fair, held annually at Jaipur's Man Sagar lake, worked with US Fish & Wildlife Service, International Crane Foundation, EECG, and is Honorary Secretary of TWSI, based at Jaipur.