

# India Wilds®

## Newsletter

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### Inside this issue:

<b>Oil Palm Plantations to devastate Andamans</b>	<b>2</b>
<b>Mutual courtship dance of Silver-breasted Broadbill</b>	<b>7</b>
<b>Conservation News</b>	<b>12</b>
<b>Equipment Discussions</b>	<b>18</b>
<b>Natural History</b>	<b>28</b>
<b>Wildlife Photography</b>	<b>30</b>

## Oil Palm Plantations to devastate Andamans:

Andaman and Nicobar Islands are known to every Indian as the dreaded kalapani or infamous place for political prisoners during British rule of India. The British created a penal settlement using prisoners in 1857. Since then scores of prisoners were sent to this far away islands and incarcerated in the cellular jail in Port Blair. The presence of British didn't go unnoticed and there was a fierce resistance put up by the indigenous tribes. There were many smaller skirmishes and one big fight known as the Battle of Aberdeen where around 1500 Great Andamanese had attacked. The British were prewarned about it and also had superior firepower so the Great Andamanese lost. Slowly their population declined as the number of British and Indians in Andamans increased. After Independence from British, many Indians moved and settled there. People who had no land and shelter readily found enough land to till after clear felling the pristine forests.

The once pristine and dense forests slowly became agricultural fields and then later urbanized. The Government even after Independence from British saw the Andaman and Nicobar Islands as easy spot for exploitation. Large scale felling of trees were done for timber. The timber merchant even brought elephants to help in this. Later when the work stopped the merchant thought it would be too costly to shift all the elephants so they simply released the elephants and they became feral. The elephants due to their huge diet requirement move around and wiped out many native flora. They debarked trees leading to death of many trees. Unfortunately due to the cost involved the elephants are not transported back to the mainland India.



Cover Page Photograph:

**Lion-Tailed Macaque  
by Sabyasachi Patra**



Elephants are not the only invasive species to be introduced in the Andamans. Two leopards were introduced and some spotted deers (Chitals). The leopards, both females, died. The chitals however proliferated and have become a major nuisance. They have been heavily destroying the native flora. Forest regeneration has been severely impacted by the chital who have been multiplying rapidly without any natural biological predators. The British who had introduced them for sport hunting have gone. And the administration and many people often get swayed by the cute looks of the deer. So the spotted deers are not eliminated though scientifically any invasive species irrespective of their looks should be eliminated from a landscape.



According to FAO, out of the nearly 45000 plant species in India, nearly 18000 are exotics. The exotics often outcompete native species and adversely impacts the biodiversity of the place. Even though our conventional economic modelling doesn't take into account our environment and forests, there is often direct economic impact due to spread of invasives. For example invasive species like lantana, parthenium etc dominating an area leads to less grazing area and results in pastuer losses. India suffers an estimated \$924 million dollars loss due to pastuer losses per year because of the invasive weed *Lantana camara*. (Pimentel, D et. Al., Economic and environmental threats of alien plant, animal, and microbe invasions; Agriculture, Ecosystems and Environment 84(2001) 1-20). India also suffers \$37.8 billion US Dollars worth of crop losses due to weeds. When we clear-fell forests and introduce invasives, it becomes difficult to control these invasive weed species. In the forests lantana also stops other native species growth in the forest under storey.

A major reason for the spread of invasive species is ignorance not only in its introduction but



also while trying to eradicate it. Kappaphycus is a seaweed has become invasive and is now destroying corals. Wildlife biologist Rauf Ali writes *“This seaweed was introduced to India allegedly by PepsiCo. Based on one record from Andamans it was claimed that the plant was indigenous, and therefore could be used. Kappaphycus was cultivated in palk straits and bits of it drifted to the Gulf of Mannar and began growing on the corals there, smothering them. Attempts to remove them were made. These attempts consisted of tearing them off the corals. The result is that little pieces torn off drifted onto the corals and took root, and the kappaphycus has spread faster than ever before.”* (Running Away from Elephants: The Adventures of a Wildlife Biologist by Rauf Ali).

Unfortunately, our bureaucrats and ministers are ignorant about the impact of invasive species. In most of the cases projects are sanctioned based on the commercial interests of a project proponent and the ministers are often too willing to pander to the interests of the corporate world. So the voice of well meaning scientists and researchers are drowned and ecologically harmful projects are given go ahead.

One such ecologically devastating project is now being considered for the Andamans. One Indian corporate giant who has diversified from trading to power distribution, thermal power plants, coal mining etc is supposed to start **Oil palm** cultivation in the Andamans. So the horrors of Malaysia will be reenacted in the Andamans. More than 3.5 million hectares of rainforests in Malaysia have been logged, burned and converted to Palm oil plantations in Malaysia, Indonesia and Papua New Guinea. When pristine rainforests are burned down, large number of species will lose their lives. In Andamans the forests don't have large carnivores and mega herbivores. However, the biodiversity of the place is incredible. The trees, plants, shrubs, birds, animals, snakes and reptiles and many tiny organisms are unique and endemic to the islands. The incredible amount of biodiversity has taken millions of years to evolve. There is also an incredible amount of mutualism that is found in these birds, animals, flora and fauna and micro organisms bound in a complex web of ecological interrelationships. Not much has been studied about these complex dependencies among species. In one stroke we are going to destabilise those by introducing



**Palm Plantation**

Picture – online media

an alien species in form of palm oil plantations.

Most agricultural pests are invasive. It may be pertinent to mention that the invasive weed *Parthenium* came to India when wheat was imported under the then PL (Public Law) 420 scheme. No one knows the other invasive weeds and species that will enter into the Andamans when this exotic Palm oil plantations scheme is undertaken.

Scientists find that if an area is earlier undisturbed and is suddenly felled then invasives will occupy a large part of the clear space. And in this case the clearfelling is specifically being done to plant Oil Palm trees which are an exotic species. How the other flora and fauna will react to this introduction of invasive plant is not known. We have no idea if there will be biological dispersion of the palm and it will start growing in areas which were not intended before. The ministers and bureaucrats who are pushing this plan will not be there when the ecology of the place is irretrievably destroyed. And the project proponent, will simply shrug off saying that he is not responsible for any ecological damage as permissions have been duly obtained from the Government.

In fact, even if permission is not obtained in a particular case, the present Government is now changing the Environment Impact Assessment (EIA) norms to grant postfacto approvals to projects. So project proponents can easily start plantations in small small areas as if they are creating holes or pockmarks in a landscape. Then these areas grow bigger. This is the Goa small mining model where small mines were illegally done to escape the project norms of a minimum threshold limit. In the latest Chaardham road project model, the project was broked down by Government to escape the EIA norms. So some people fear that there many not be any grand announcement and the project proponent can simply follow the numerous small plantation model.

According to Government of India statistics 69% of India is arid land, 32% is facing land degradation and 24.8% of India's land is facing desertification. So this is not a time to clearfell and start plantations.

In an era of climate change, the weather patterns have become unpredictable. The global ambient temperatures have been continually on the rise. According to NOAA (National Oceanic and Atmospheric Administration) June 2020 marked the 44th consecutive June and the 426th consecutive month with temperatures, at least nominally, above the 20th-century average. India is facing severe heat waves every year. Also the climate change is resulting in intense cyclones, landslides. Climate Change will impact millions of people and will push them into poverty. Our Government has to understand that our actions are all linked and is resulting in climate change. Each act in destabilizing the natural processes is having a consequence. However, when the Government itself wants to wipe out our forests for projects that benefit certain project proponents, it will become irreversible and a historical injustice to future generations who will bear the brunt of such ecologically devastating decisions.

The Oil Palm plantation in Andamans is a muddle-headed idea and needs to be stopped.

## **Article -**

# **Mutual courtship dance of Silver-breasted Broadbill**

**By Samrat Sarkar**

Silver-breasted Broadbills are found in the forests in dense canopy. After the Bengal Florican, the Silver-breasted broadbills are the most sought after birds in the Manas National Park, India. Many tourists visit Manas to watch these birds. This female bird in the picture here is sitting unconcerned in a dreamy surroundings of yellow green lights. In the image one can find a white circular ribbon round the neck of the female birds.

Some recent findings declare that there are not only the yellow-green lights in the forests, but at least five different types of lights prevail in different situations these forests. They are 1. Yellow-green, 2. Bluish-grey, 3. Reddish-orange, 4. Bluish-violate, 5. Pure-white.

The type of light in a forest depends mainly upon the geometry of the forest, upon the presence of the clouds in the sky and upon the angular position of the sun in the sky. Generally the bluish-grey lights are seen in the forests in most situations; when there is some opening in the jungle reddish-orange lights are seen; when these openings become quite large the light becomes dull white with or without the presence of some clouds in the sky; the light becomes bluish-violate in early mornings and just before the darkness comes at night; and in the forests covered by a roof of thick vegetation the yellow green light becomes prevalent. These interesting findings were disclosed in a research paper by Mr. John A. Endler, a researcher in the California University. He also claimed that the presence of these different types of lights are not dependent on the diverseness of the trees of the forest, or on the heights of the forest nor on which continent the forest is situated.

Though photographers are aware about the different available lighting and hence change the settings in their cameras accordingly, do these different lights influence the moods of the birds as well? As per Mr. Endler, the different coloured lights do influence the mood of the birds. But what sort of influence do they play?

The Manas National Park has long been enticing and enthralling the tourists with the splendours of its diversified landscape of vast dry riverbeds, deciduous forests, rising slopes of the hills, long stretches of grasslands and with its vast expanse of wetlands. As we go past the long and grassy wetlands at the foot of the Bhutan hills on the north west of the Park we enter the canopy of the vast evergreen forest. Due to this variety of its topography and geography the Manas has produced a large variety of flora and fauna.

It takes a lot of hard work and trouble as a photographer to take pictures of these landscapes in such difficult situations and mainly while photographing birds. The main reason of this is ever changing available light. The settings of the camera have to be changed every time the lighting situations change. There are no scarcity of light in the dry river beds or in the grasslands, but the moment we enter into a deciduous forest the light starts playing hide and seek with the camera. Photographing in the evergreen forests covered by thick layers of green leaves at top makes it more difficult than any other place. In most cases the sun rays hardly penetrate the thick leaves at top, and since the photographer is pointing the camera upwards the pictures of the birds become underexposed in the yellow-green background of the trees due to the backlight and



## Article -

only the outlines of the birds and in situations like this may be visible in severe underexposed photos.

There are a number of birds who display the colours of their feathers in different manners to lure and to select their prospective mate. These colours of their feathers blossom differently in different spectral environment of the forest. The reflectance spectra of their feathers in a suitable ambience greatly appeal to their mates. Thus we may infer that a successful courtship to a great extent depends on the geometry of the forest, on the presence of clouds in the sky, on the angular position of the sun in the sky mainly for the birds who capitalise on the attractive colours of their feathers to attract their partners by courtship display. This is what the researchers, Mr Endler and Mark Thery have disclosed in another research paper in the year 1995. Therefore, the colourful feathers of the birds or the difficult manoeuvre they perform to attract their partners get greatly stifled unless there is a suitable, dramatic and ambient spectral environment around them in the forest.



The Female

Samrat Sarkar



The Male

Samrat Sarkar

During our observation of the silver-breasted broadbill in Manas, the female bird was at first sitting alone in a branch of tree. The male one at that time was sitting on another branch of the tree.

Suddenly the female bird flew away and sat on another branch where the ambience of the yellow green colour was more prominent. It was not known whether there was some signal from the female bird to its partner or not, however the male bird did not waste a single moment to move close to the female one and sat very close to its partner (as seen in the picture).



Then a marvelous series of events unfolded. The male bird brought its tail a bit downwards and spread its wings to some extent and started dancing beautifully.

The female bird was watching its partner and then

## Article -

she also spread its wings the same way as the male one was doing.

The male bird started raising its tail upwards slowly and started moving its wings forwards from backwards.



The female partner then started doing just the same; moved the wings forwards from backwards. The two birds seemed to be just like two expert swimmers doing butterfly strokes in a same rhythm in yellow green ocean of water. The female bird pointed its face towards the sky feeling contented.

This is the intrinsic mutual courtship dance of the Silver breasted Broadbill and usually last only for 12 to 15 seconds.



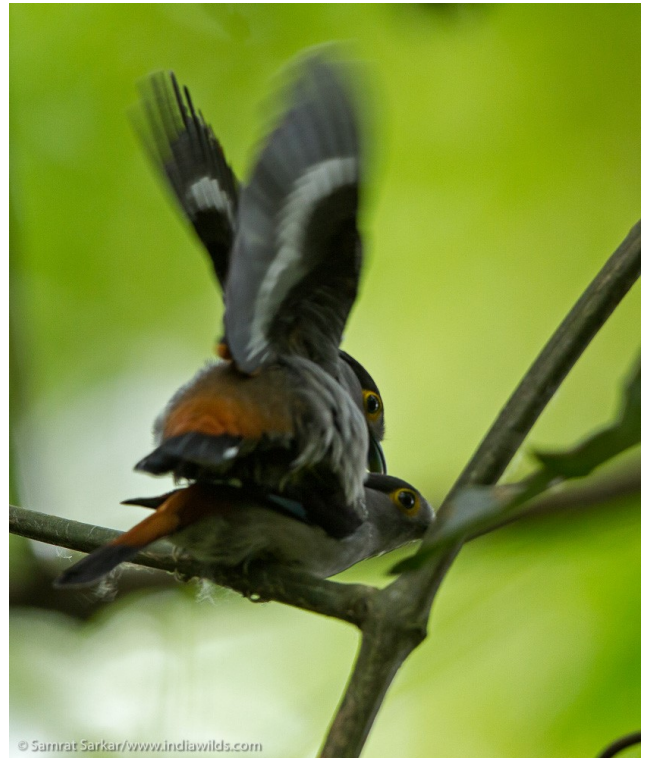


## Article -

No sooner had the dance ended than the female bird turned its face towards its partner and looked at him.

The next moment the male bird mounted on the back of its partner with an intention for copulation.

The Silver breasted Broadbill spends its lifetime under the covered canopy of the evergreen forest and naturally they mate in these places. In those forests under covered canopies very small amounts of light from the open sky penetrate and reach the ground. And whatever amount of light comes it does so after being reflected by the green leaves and for that reason the surrounding atmosphere becomes filled with yellow green hues. From these findings we can make some general conclusions.



## Discussions and conclusions -

1. Both the birds were sitting on two different well lit and airy tree branches. But at the time of mutual courtship dance both of them came to a branch which was obscured by some leaves. Mr. Endler and Mr. They observed that the birds prefer only those lighting situations where the colour of their feathers become cryptic, dramatic and conspicuous while at the same time they can camouflage to save themselves from the threats of the possible unknown enemies. In this case also those factors might have played some important roles.
2. There are many different colours in the body of a Silver breasted Broadbill. Among all these colours the most attractive ones are the liver-hued red patches extending from beneath the back upto the mid portion of the tail, and two distinct sky blue and white patches in their black wings. The visions of the birds are much more sensitive than ours' and they can differentiate the subtle variations of lights. They might have spent thousands of years to learn this special type of mutual courtship dance in which they want to display their beautiful colours on their feathers more prominently to their partners. That may be the reason why they want to expose more the colourful beauty patches on their wings and backs to their prospective mates.
3. The particular branch of tree might have been used for this particular purpose of courtship activities by their contemporaries or even by their forefathers for past few years. In the language of ornithologists this type of places are called as Lek place. This couple also have made a good and proper use of this place.
4. Similar behavior was earlier observed in a pair of Orange headed Thrush (OHT) in our village a year ago. Reddish orange colour of sunrays made their way through some small openings of the tree leaves above and fell on the dry leaves on the ground. In situations like this the sun rays after passing through the small openings fall directly on the ground. The sunrays make an angle with the horizontal as it passes through the small holes between the leaves above, the same angle as we look

## Article -

at the sun. In situations like this the lights of long wavelengths, such as red and orange become prevalent suppressing the other colours. After observing the particular pair for a number of times I could pretty well identify the pair at a glance. The female bird was bringing food stuff from the male one and was again and again coming to sit and spread its wings on that particular spot where sunrays were coming. It was obvious that the bird was spreading its wings not for baking in the sun because it was mid noon and was in the month of April and the temperature was around 38 degree Celsius. Had the bird



wanted to bake in the sun it would have remained sitting under the sun at the same spot and would not have left the spot again and again.

The head of the bird was bright orange. The bird was perhaps eager to show to its partner how bright and colourful its body was in the background of the orange light and liver hued dry leaves. The male bird was hopping around its partner with some hay stuff in its mouth intended for building their nest.



All around the world there are a number of species of birds the females of which display the beautiful colours of their bodies



## Article -

to their male counterparts. M. Susan DeVries, Caitlin P. Winters and Jodie M. Jawor in their research paper in year 2014 shown that a female Northern Cardinal was singing and dancing for its male partner the same way as a male sings and dances. Here also the female Orange headed Thrush (OHT) is displaying courtship to the male bird by successfully banking on the reddish orange colour of the sun rays and the light liver hued colour of the dry leaves. The male bird also became satisfied that it had made no mistake to choose a suitable mate. And this resulted in a successful conjugal mating season.

These are the interesting relations of the role of different lights in the forest with display activities of the birds. And the joint courtship dance of the monogamous birds like the Broadbills is not anything less interesting either.

There are more than 200 species of birds in the world which perform courtship song and dance and display other courtship activities. Some of them are polygamous and the others are monogamous. In the case of the Broadbills in the picture here we can come to some inferences based on the observations

1. I did not hear either of the birds sing for the other though the Silver breasted Broadbills are capable of singing in a loud voice and many monogamous birds like them sing songs to attract their partners.
2. There may be many number of reasons for mutual courtship dances. It may be intended for selecting a suitable partner or may be to reinforce their conjugal relationship or may be for demarkating the area under their control. There has not been any proper research in this field so far. All the minute details of sole display or of mutual display are really very difficult to understand and the amount of information we have gathered in this field are mainly based on speculations only. There was another male bird close to this couple. The courtship dance that the male bird started displaying might be to prove to the second male bird the strength of their conjugal relationship with its partner.
3. There is a term in ornithology; CSD. Its full form is “Copulation solicitation display”. At the end of the mutual courtship dance the female bird gives a signal to the male bird. The male bird reads the signal correctly and understands that its partner now has given him permission to mount. This very signal of the female bird is known as the CSD. In the picture the female bird gives a distinct glance at its male partner after which the male bird mounts. Thus it may be concluded that this that such sideways glance of the female bird is another name of CSD.

## Conservation News -

### **India asks Developed countries to implement the financial and technological commitments under UNFCCC & Paris agreement**

The year 2020 is supposed to be the “SUPER YEAR FOR BIODIVERSITY”, as the Strategic Plan for Biodiversity with 20 global Aichi targets adopted in 2010 ends in 2020. All the countries together are supposed to be in the process of preparation of Post-2020 Global Biodiversity Framework.

The fourth edition of the virtual Ministerial on Climate Action witnessed countries exchanging views on how countries are aligning economic recovery plans with the Paris Agreement and the critical enabling conditions to ensure continued climate action. The meeting was co-chaired by European Union, China and Canada to advance discussions on the full implementation of the Paris Agreement under the United Nations Framework Convention on Climate Change (UNFCCC) and to demonstrate continued political commitment to global climate action.

India was represented by Minister for MoEF&CC, Shri Prakash Javadekar in the virtual Ministerial meetings. Shri Javadekar said that India has taken very significant steps to combat climate change and will continue its efforts in the future also. He called upon developed country parties, to do their part as envisaged under UNFCCC and its Paris Agreement, for extending financial and technological support to developing countries. *“The promise of USD 1 trillion by 2020 has not been fulfilled so far, and I hope that in the remaining 5 months of 2020, the promised amount is mobilized and delivered, for further strengthening climate actions in developing countries.”*, stressed the Environment Minister.



Highlighting India's efforts, the Environment Minister said that India has achieved reduction of 21% in emission intensity of its GDP between 2005 and 2014, thereby achieving its pre-2020 voluntary target. Further, India's renewable energy installed capacity has increased by 226% in last 5 years and stands more than 87 Gigawatt. *“The*



## Conservation News -

*share of non-fossil sources in installed capacity of electricity generation increased from 30.5% in March 2015 to 37.7% in May 2020 and our Prime Minister has further announced the aspirational target of increasing our renewable energy capacity to 450 GW.”*

The minister further said that we have provided 80 million LPG connections in rural areas, providing them with clean cooking fuel and healthy environment. *“India’s total forest and tree cover is 8,07,276 sq. km. which is 24.56% of the total geographical area of the country; More than 360 million LED bulbs have been distributed under UJALA scheme, which has led to energy saving of about 47 billion units of electricity per year and reduction of 38 million tonnes of CO<sub>2</sub> per year.”*, said the Environment minister.

Highlighting India’s efforts towards cleaner fuel Shri Javadekar said that India has also leapfrogged from Bharat Stage-IV (BS-IV) to Bharat Stage-VI (BS-VI) emission norms by April 1, 2020 which was earlier to be adopted by 2024. The minister also highlighted how India had levied a coal cess of INR 400/- as, part of one of the most explicit green initiatives & this is now subsumed under Goods and Services Tax (GST). *“Under Smart Cities Mission, first-of-its-kind initiative – Climate Smart Cities Assessment Framework 2019 has been launched which intends to provide clear roadmap for cities and urban India towards combating climate change through adoption of both mitigation and adaptation measures.”* told the Minister at the meeting.

The fourth edition of the meeting was attended by Ministers and representatives of about 30 countries and was held virtually for the first time in view of the ongoing pandemic. The purpose was to ensure that progress is made on climate action.

While USA has been brazen enough to withdraw from the Paris agreement, there are many countries who are tries to sidestep the agreement requirements and misclassifying their actions. It might be pertinent that India has changed the forest nomenclature to include plantations within it, so the data looks rosy. This motive behind this move can be easily understandable if one realizes that under the present Government the diversion of forest land is unprecedented. The recent move by India to allow private companies to enter into the hitherto restricted coal mining area is primarily to engage one large conglomerate which is pushing for coal-fired captive power plants. Governments of many countries are now trying this ugly data colouring to meet the Paris climate agreement. Given that the world is witnessing an unprecedented lockdown induced by Covid-19 pandemic and economic activity in many countries has hit a standstill, the chances of Developed countries adhering to financial commitments appears bleak. The casualty is our Planet Earth which is witnessing unprecedented Climate Crisis with intense and repeated cyclones, landslides, heat waves etc. <https://youtu.be/k5YzH5DmBsM>

June 2020 was the third warmest June on record. Our permafrost is thawing around the world and this is likely to result in pandemics. <https://youtu.be/nJD7YoeFjPc>.

It is time the world leaders take Climate Change seriously and stick to their commitments in letter as well as spirit.

## **Conservation News -**

### **Central Pollution Control Board to strengthen monitoring of Pollution in tributaries of Ganga.**

An inter-ministerial meeting was held in the presence of Union Environment Minister, Shri Prakash Javadekar and Union Minister of Jal Shakti, Shri Gajendra Singh Shekhawat in New Delhi today. The meeting was attended by senior officials of both the ministry.

In the meeting pending issues of Environment/Forest clearance of National Projects of Central Water Commission, National Water Development Agency and Pradhan Mantri Krishi Sinchayee Yojana-AIBP were discussed.

Further, Union Minister of Jal Shakti requested the Central Pollution Control Board to strengthen the pollution monitoring system in Ganga and its major tributaries wherein inspection of Grossly Polluting Industries are carried out on regular basis. Similarly, close monitoring of water quality in coordination with National Mission on Clean Ganga was emphasised and it was agreed upon that suitable mechanism will be developed.

Union Environment Minister, Shri Prakash Javadekar urged the officials of both the ministry to work in close tandem and expedite approvals of key river projects of national importance after following due process and also put in institutional mechanism to monitor water quality of Ganga and its major tributaries. At the meeting, Shri Javadekar also informed that the Ministry of Environment, Forest and Climate Change has in principle approved a special programme for conservation of Gangetic Dolphin, on the lines of Project Tiger and Project Elephant.

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### **India's Tiger Census sets a New Guinness Record for being the world's largest camera trap wildlife survey.**

The fourth cycle of the All India Tiger Estimation 2018 has entered the Guinness World Record for being the **world's largest camera trap wildlife survey**.

The citation at the Guinness World Record website reads- "The fourth iteration of the survey – conducted in 2018-19 - was the most comprehensive to date, in terms of both resource and data amassed. Camera traps (outdoor photographic devices fitted with motion sensors that start recording when an animal passes by) were placed in 26,838 locations across 141 different sites and surveyed an effective area of 121,337 square kilometres (46,848 square miles). In total, the camera traps captured 34,858,623 photographs of wildlife (76,651 of which were tigers and 51,777 were leopards; the remainder were other native fauna). From these photographs, 2,461 individual tigers (excluding cubs) were identified using stripe-pattern-recognition software.

The All India Tiger Estimation is done quadrennially and is steered by the National Tiger Conservation Authority with technical backstopping from the Wildlife Institute of India and implemented by State Forest Departments and partners. The latest results of 2018 had shown that India now has an estimated 2967 tigers out of which 2461 individual tigers have been photo captured. Authorities say that extensive foot surveys have covered 522,996 km



## **Conservation News -**

(324,975 mi) of trails and sampled 317,958 habitat plots for vegetation and prey dung. It's estimated that the total area of forest studied was 381,200 km<sup>2</sup> (147,181 sq mi) and cumulatively the collection and review of data equated to some 620,795 labour-days.

The estimated 2967 tigers makes India home to nearly 75% of the global tiger population. Critiques of the tiger census have for long demanded that the methodology used in the tiger census be presented in a peer review journal. Without a foolproof methodology the exercise can throw up data which may look good but won't be correct. So scientists say that the resistance of the authorities to share their methodology ensures that the tiger census numbers lack sanctity and appears more like a political tool where the political leadership is often ready to take credit. In fact given that under the present Government there has been unprecedented diversion of forest lands for industries, dams, mines, roads and other linear projects, news of increasing tiger numbers help in justifying the diversion. We have lot of tigers so lets sacrifice a few for development is the common refrain.

Recently an RTI petition had revealed 750 tiger deaths. So tigers have been dying due to poaching as well as habitat loss and fighting a grim battle for survival while we are celebrating.

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## **Approval accorded to Zonal Master Plan of Bhagirathi Eco-Sensitive Zone**

In a review meeting of the CHAARDHAAM ROAD PROJECT in the State of Uttarakhand via Video Conferencing, Union Environment Minister, Shri Prakash Javadekar informed that the Zonal Master Plan (ZMP), prepared by the Government of Uttarakhand and appraised by the Ministry of Jal Shakti, has been accorded approval by the Ministry of Environment, Forest and Climate Change (MoEF&CC) on 16th July, 2020.

The Bhagirathi Eco-Sensitive Zone notification from Gaumukh to Uttarakashi covering an area of 4179.59 sq. kilometer was issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC) on 18th December 2012 keeping in view the requirements of the local people without affecting their rights and privileges and also ensuring eco-friendly development for their livelihood security. The notification was subsequently amended on 16th April, 2018 in consultation with the Ministry of Road, Transport and Highways, GOI; Government of Uttarakhand and Indian Road Congress.

It is to be noted that the Chaar Dham road project was divided into small components to bypass the EIA (Environment Impact Assessment) laws. The Ministry of Road, Transport and Highways have always tried to bypass environment and forest laws and have always opposed spending money on sufficient mitigation measures like underpasses and overpasses. So when Govt. says that a Eco sensitive zone notification is amended in consultation of the Ministry of Road, Transport and Highways, then one can understand the amount of dilution that would have been forced.

So on paper now there is a Bhagirathi Eco-Sensitive Zone notification which mandates the State Government of

## **Conservation News -**

Uttarakhand to prepare ZMP to be implemented under the supervision of the Monitoring Committee. The ZMP is based on watershed approach and includes governance in the area of forest and wildlife, watershed management, irrigation, energy, tourism, public health and sanitation, road infrastructure, etc.

The review meeting of the CHAARDHAAM ROAD PROJECT in the State of Uttarakhand was chaired by Union Minister for Road Transport & Highways and MSMEs Shri Nitin Gadkari. Chief Minister of Uttarakhand Shri Trivendra Singh Rawat, Union Minister of State for Road Transport & Highways Gen (Retd) V K Singh and the State Ministers of Environment & Forest, PWD among others participated in the meeting. Union Secretaries of Road Transport & Highways, Environment and Forests, DG Roads (MoRTH), DG(BRO) and senior officers of the two Ministries and State Government also attended.

The project proponents have forgotten the 2013 massive floods and landslides. Himalaya is a young and fragile mountain range. Blasting for dams and roads as well as construction of human habitations has been taking its toll on this ecologically and geologically fragile area. While project proponents get the project financed and earn money from a project, when nature hits back it is the local people who bear the brunt of it. In the 2013 Uttarakhand landslides and floods an estimated 10,000 people had died. Unofficial estimates suggest that the number is way higher. The Government unfortunately is actively working towards an environmental catastrophe. doesn't want to understand.

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## **TN Govt permits Forest Department to shoot and Kill wild boars**

### **Chennai, July 25**

The Tamil Nadu Government has informed the Madras High Court that the Govt. has now permitted the Forest department to shoot and kill wild boars that damage crops. This kill order has been issued in nine districts of Tamil Nadu, a PTI report said

This submission of the TN Govt. was in response to a PIL filed by one A R Gokulakrishnan from Dindigul who had claimed that the wild boar population has multiplied and this has impacted agriculture. The petitioner claimed that there are 10 million wild boars breeding in the hilly areas.

The petitioner said that the average life-span of the boars was 8-10 years. One could see them roaming about with piglets destroying cash crops and plantations causing irreparable loss to the already suffering peasant community in almost all the 12,527 panchayats covering all the districts of Tamil Nadu. Since the authorities failed to make any step to check the menace despite his representation, the petitioner moved the High Court. In March 2016, the court recorded the recommendation made by the principal chief conservator to the Home Secretary on measures to be taken and directed the state to implement them. But, the Home Secretary has not passed any order based on the recommendation," the petitioner said.



## Conservation News -

From where the petitioners got these numbers are not known. However, the neither the Government nor the forest department deemed it fit to counter these fictitious numbers.



Recording the submission, the First Bench of Chief Justice AP Sahi and Justice Senthilkumar Ramamoorthy disposed of the plea.

According to a report from the government, the order to kill the boars was first issued on July 22, 2017 considering the issue for 12 months. Later, the order was extended on January 25, 2019 to another 12 months based on the recommendation of the forest department. Subsequently, on May 6, the department again suggested extension of the order for a further 12 months. Therefore, the present order has been issued, the report said.

## Equipment Discussions -

### Canon EOS R5 shoots 8K Raw video:

Canon has announced the EOS R5 camera which shoots 8K video and 45 megapixel still photos. The EOS R5 is a fullframe mirrorless camera in RF mount. The EOS R5 camera marks a watershed moment in Canon's history as it is the first canon camera which can shoot 8K video. Canon was not known for high resolution video.

<https://youtu.be/zEZMmZcqIu8>

And the stunning thing is the EOS R5 can shoot 8K RAW video upto 30p in 12 bits. The file size will be huge. However, for the discerning filmmaker the 8 raw files will open up a different world.



Apart from 8K raw video, the EOS R5 can also shoot 8K video in H.265 and H.264 encoding.

It is a fullframe camera and shoots 45 Megapixel stills and 8K video upto 30p and in RAW mode. It shoots stills with 8192x5464 pixels at its highest resolution.

The early teaser of Canon had talked about 8K video. However, including RAW video in 8K mode is awesome. Even though there is no slow motion in 8K video mode, the RAW files will be really welcome for the discerning user. And on top of it the 8K RAW is in 12 bits. So enough to push and pull in post production. I am sure Canon intends the EOS R5 to recreate the madness that the original EOS 5D Mark II did.

The EOS R5 can also shoot 8K Video in H.265 4:2:2 in 10 bits and H.264 in 4:2:0 in 8 bits. A lot of people will use this mode.



## **Equipment Discussions -**

The EOS R5 can also shoot 4K at 120p.

You can record externally either in DCI 4K or UHD video to an external recorder upto 60p in 4:2:2 in 10 bits.

### **Video challenges:**

There is however a recording limit of 29 mins 59 seconds. So one needs to get around it by stopping and starting briefly.

A major challenge in recording 8K video in the EOS R5 is that the camera heats up due to the compact nature and hence less ability to dissipate heat generated due to 8K video or 4K 120p video recording.

### **Recording Media:**

The EOS R5 records to one CFexpress Type B card and one SD/SDHC/SDXC (UHS II) card. I guess canon didn't want to include two CFexpress cards to give still photographers an option of using the cheaper SD cards.

### **Still Photography:**

Still photographers will be happy as the EOS R5 can shoot 12 fps stills at 45 Mega pixels upto 180 frames in mechanical shutter mode. And one can shoot in 20fps in electronic shutter shooting 45 Mp stills for 83 shots in raw mode. The number of shots increases to 350 and 170 respectively when you shoot jpegs in mechanical shutter and electronic shutter modes.

Like most of the recent cameras the ESO R5 has an USB-Type C (USB 3.1) mode, one HDMI D (Micro), 3.5mm headphone jack and 3.5 mm jack for microphone.

### **Image Stabilisation:**

This camera also has a 5 axis image stabilization. Canon claims an incredible 8 stops of image stabilization. The Stabilization gets better if the EOS R5 is mated with a compatible RF- or EF-mount lens. Canon claims that the level of stabilization makes it easy to shoot handheld video as well as work with long, telephoto lenses while still capturing crisp footage. When combined with the just-announced RF 600mm and 800mm lenses you can even realize the dream of handheld super telephoto photography.

This will be highly appreciated especially shooting videos despite the limitations due to heat generated.

**Body size:** 5.43 x 3.84 x 3.46

**Weight:** 738 grams including battery and cards.

**Price:** ~~\$3899~~ US Dollars for body only

and ~~\$4999.00~~ for the R5 and RF 24-105mm F4 L IS USM lens kit.

## Equipment Discussions -

### Canon launches the EOS R6 fullframe mirrorless camera

Along with the flagship Canon EOS R5, Canon has announced the EOS R6 camera fullframe mirrorless camera.



The EOS R6 appears to be well-equipped with a host of new features to push the limits of creativity for imaging enthusiasts. The combination of the EOS-1D X Mark

III based 20.1-megapixel full-frame CMOS sensor and the DIGIC X image processor produces an ISO range of 100-102,400 and is expandable to 204,800.

The EOS R6 is geared towards advanced amateurs featuring a 20.1-megapixel full-frame CMOS sensor and 4K video recording up to 59.94 fps. The addition of the EOS R5 and the EOS R6 cameras within the EOS R series lineup further solidifies Canon's commitment to providing the technologically advanced equipment in the RF mount.

EOS R6 cameras have the ability to capture the action of a variety of fast-moving subjects with impressive accuracy and speed. When using the mechanical shutter, the EOS R6 can shoot up to 12 fps and up to 20 fps when using the completely silent shutter. While shooting wildlife I find the 12fps to be pretty good burst speed for shooting photos of wildlife. The 20fps in electronic shutter mode will likely to be useful in track and field competitions where athletes appear in unique poses in these high frame rates which our eyes fail to notice.



## Equipment Discussions -

### Canon EOS R6 top view



#### Advanced DPAF:

Canon's advanced Dual Pixel CMOS AF II which utilizes up to approximately 100 percent coverage of the AF area and EOS iTR AF X incorporating AF tracking algorithms using deep learning technology and enhanced readout speed of the CMOS sensor and processing speed thanks to the DIGIC X image processor.

The 1,053 automatically selected AF Zones are made even more potent by the ability to detect the human eye, face or head as well as the eye, face or body of animals such as dogs, cats and even birds<sup>[i]</sup>.

#### Image Stabilisation:

The EOS R6 comes with impressive inbuilt 5-axis Image Stabilizer. This can coordinate well with the Optical Image Stabilizers i.e. IS equipped RF lenses. Canon has said that this results in up to 8 stops<sup>[ii]</sup> of shake correction. Often handholding used to be a big challenge due to the lack of good image stabilization in the camera body. Canon has moved in to solve that challenge.

The EOS R6 cameras come with a new LP-E6NH battery with a higher capacity than the previous model.

#### Video:

Internal video recording at 4K is capable up to 59.94 fps or 1080p up to 119.88 fps in 10 bit 4:2:2 Canon Log(H.265) or HDR PQ(H.265). For many people the 4K 60p or 4k 50p (in PAL countries) is a good bet as clients still demand 1080p vid-

## **Equipment Discussions -**

eos. Also this camera will be nicely used for youtube content creators.

The camera also features a built-in 0.5-inch OLED EVF with approximately 3.69 million dots and a 119.88 fps refresh rate [vi]. Additional features of the EOS R6 camera include:

1. Dual UHS-II SD card slots
2. 3-inch 1.62 million dots vari-angle LCD touch screen
3. 2.4GHz Built-in Wi-Fi®[vii] and Bluetooth Technology[viii] with the ability to utilize the image.canon application
4. Enhanced operating controls such as rear-dial, multi-controller

### **Battery Accessory**

The optional BG-R10 battery grip accessory will be available for both the EOS R5 and EOS R6 full-frame mirrorless cameras. The BG-R10 accommodates up to two batteries and is compatible with the new LP-E6NH, LP-E6N and LP-E6 batteries. The convenient BG-R10 grip accessory can also improve handling for users while capturing portrait photography.



**Weather, drip and dust sealing on par with the EOS 6D series EOS R6 has dual SD card slots**



## Equipment Discussions -

### Canon EOS R6 with battery grip



#### **Price:**

\$2499.00 for the body only

#### **Availability:**

End of August

## Equipment Discussions -

### Canon launches slow affordable telephoto lenses in RF mount

Canon has launched a series of slow and affordable telephoto lenses for the RF mount and a 85mm f2 lens.

#### Canon RF100-500mm F4.5-7.1 L IS USM

The Canon RF100-500mm F4.5-7.1 L IS USM is a high-performance and versatile super-telephoto zoom lens that will find its way into the bags of many photographers. The compact and lightweight lens features optical image stabilization of up to five stops\* of shake correction with three different IS modes, including standard, panning and during exposure only. Two Nano USM motors are at the heart of this lens and provide users with high-speed, smooth and quiet auto focus with a minimum focusing distance of three feet.



**RF100-500mm F4.5-7.1 L IS USM**

#### **Additional features of the Canon RF100-500mm F4.5-7.1 L IS USM include:**

1. Rotation-Type zoom ring and torque adjustment allows for precision control and feel
2. Customizable control ring that enables photographers to adjust exposure compensation, shutter speed, aperture or ISO
3. 12-pin Communication System
4. Canon L-Series grade dust and weather-resistant construction with a fluorine coating
5. Lens hood with side window allows specialty filters to be adjusted even while Lens Hood is attached



## **Equipment Discussions -**

6. Compatible with the new 1.4x and 2x RF lens extenders (from 300 to 500mm focal length)

The 100-500mm is a very nice zoom range and has become popular with photographers. Though Canon has 100-400mm f3.5-5.6 lens in the EF mount, the 400mm often falls short while photographing distance subjects like birds as well as leopard sitting in a tree at a distance. The 500mm will help solve that issue to a great extent. However, the maximum aperture of 7.1 is still usable especially since these days the new cameras have got very good high ISO performance. With a 1.4 extender this lens can act as an 800mm f 10 lens. So even shooting birds becomes possible.

**Availability:** September 2020

**Price:** \$2,699.00 US Dollars

### **Canon RF600mm and 800mm F11 IS STM**

The Canon RF600mm and RF800mm F11 IS STM lenses are the first fixed focal length super-telephoto RF lenses and are incredibly compact and lightweight. The portability of the new lenses is made even greater due to the ability for the lens barrel to retract and lock in place when the lenses are stowed away and not in use. Diffractive Optics technology helps to reduce the necessary number of lenses and greatly diminish the cost of the lenses, making them affordable for a broader group of photographers.



#### **Canon RF800mm IS STM**

**Additional features of the Canon RF600mm and RF800mm F11 IS STM lenses include:**

1. Lightweight - the RF600mm weighs approximately 2.05lb and the RF800mm weighs approximately 2.78lb, respectively
2. Compact size, RF600mm measures approximately 7.85inch and RF800mm with 9measures approximately 11.09inch when retracted, respectively
3. Fixed f/11 aperture

## Equipment Discussions -

4. Optical image stabilization of five stops\* for the RF600mm and four stops\* for the RF800mm of Shake Correction
5. Lead screw-type STM enables smooth auto focusing for still-image and video shooting
6. Customizable control ring that allows photographers to adjust exposure compensation, shutter speed, aperture or ISO
7. 12-pin Communication System
8. Compatible with the new 1.4x and 2x RF lens extenders

**Availability:** July 2020

**Price:** Canon RF600mm F11 IS STM lens is priced at \$699.99 US Dollars and Canon RF 800mm f11 IS STM lens is priced at \$899.99 US Dollars.



## **Canon RF85mm F2 MACRO IS STM**

The third RF85mm lens in the RF lineup, the Canon RF85mm F2 MACRO IS STM is compact and lightweight, featuring a bright f/2 aperture helping to capture images that have exceptional bokeh. The lens features a maximum magnification of 0.5x and a minimum focusing distance of 1.15 feet, providing users with macro-photography capability. Additional features of the Canon RF85mm F2 MACRO IS STM include:

1. Optical Image Stabilization with up to five stops\* of Shake Correction
2. Hybrid IS compensates for angular and shift camera shake during macro photography
3. Control Ring for Direct Setting Changes.
4. 12-pin Communication System
5. Nine blade Circular Aperture

**Availability:** October 2020

**Price:** Canon RF 85mm F2 MACRO IS STM lens is priced at **\$599.99 US Dollars.**

## Equipment Discussions -

### RF Lens Extenders

Lens extenders have long been a practical and useful tool for a variety of photographers. That story continues with the introduction of the Extender RF 1.4x and Extender RF 2x. The new lens extenders inherit the same high image quality, precision AF and reliability, such as being drip and dustproof, of EF lens extenders. When used in combination with the newly-released compatible lenses, the capturing range can be dramatically increased, providing consumers with additional use cases for their existing RF lenses.



**Canon Extender RF 2x**

**Availability:** end July 2020.

**Price:** The RF Extender 1.4x and 2x are priced at **\$499.99** and **\$599.99\*\*** each.



**Canon Extender RF 1.4x**



## Natural History -

### COUNTRY NOTEBOOK: Friendly Hobgoblins: M.Krishnan:- 13-07-1969

The Sunday Statesman (shared by Shri. Saktipada Panigrahi)

#### SLENDER LORIS

" By the time I was 41, I had to admit that I had lost my long fight with myself, and that what people euphemistically term the spread of middle age, and botanists more bluntly secondary thickening had overtaken me. And on my forty-first birthday I wrote these lines on the Slender Loris, in envy and regret.



Slender Loris Photo - Akshay Kumar Manjunath

I wish I were a Slender Loris  
And not a massive human being.  
In such a change of course  
Much more is  
Lost that is gained, for though agreeing  
With men in lacking tail and manners,  
On evolution's path it lingers  
Bar back' we have reached the  
Destination  
All the days it sleeps with shaking Fingers  
Over sun-shy eyes, no fascination  
Lmoels its night; slow-limbed  
The stories  
Or trees it climbs for insect plunder.  
But still I wish I were a loris --  
Beyond all argument it's slender

By no means an inspired verse, but factually very sound. The Slender Loris (and even the Slow Loris of north-east India, with its body and limbs much thicker) is a featherweight, the size of a kitten and slim, with a very narrow waist and hard, thin limbs; the great goggle eyes are set on by a patch of dark fur around each of them and as one might guess from its owl-face and big, round orbs, it is a creature of the night.

It is highly arboreal, and spends the day in sleep, deep in the shady cover of a tree top, with its face buried in its chest, bird like and often with its hands over its eyes to shed them from the glare, especially when it is forced to keep awake by day. It is from its round face and its habit of shading its eyes with its hands that it gets its Hindi name, Sharmindi-billi (the bashful cat).

Lorises are among the small creatures the are missed easily, and so are seldom seen. In fact I can recall seeing a loris only thrice—a pair of slow Lorises high up a tree in Bhutan, and a Slender Loris twice in the south, also up trees and on both occasions late in the evening. Unfortunately for it, the slender Loris is credited by superstition with the ability to bring one luck, and its gnome like looks are so unusual the it is commonly kept in a cage and exhibited in zoos, and as a captive animal (usually exposed to much more glare that it can tolerate) it is by no mean unfamiliar.

It is not only that they do not give it a cage large enough and deadly enough small in sleen in comfort through the day on some suitable perch -- they often give it the wrong diet as well, bread-and-milk and bananas. I do not know if a slender Loris is exclusively insectivorous when wild; perhaps it also eats eggs and even small tree-living lizards when it can find them, and soft fruits and other vegetarian fare. But I am quite sure that it dose need insect food or some suitable substitute.

In fact, its dentition is hardly that of a fruit-eater and, as I learnt in the most unpleasant manner imaginable, it has sharp teeth. To get the picture reproduced here I had the two captive Lorises taken out of their cage and placed on a long length of tamarind bough, with one end planted into the earth. Somehow those Lorises did not want their picture taken. As soon as they were put on the bough, they climbed quickly down and made for the security of their cage, moving over the ground at an awkward, shambling shurie much faster than on the bough, I caught them both and gently redeposited them on the bough, and in the process got a sharp nip from one, which confirmed my views on its dentition.

A man whom I know, who kept a Loris for a pet, told me that the animal once made a bid for liberty, and on being chased, entered a pool of water and swam across, using a rhythmic breast-stroke, only to be caught on reaching the farther bank. I cannot vouch for the accuracy of this report, but believe it, for most animals can swim when they have to."

- M. Krishnan

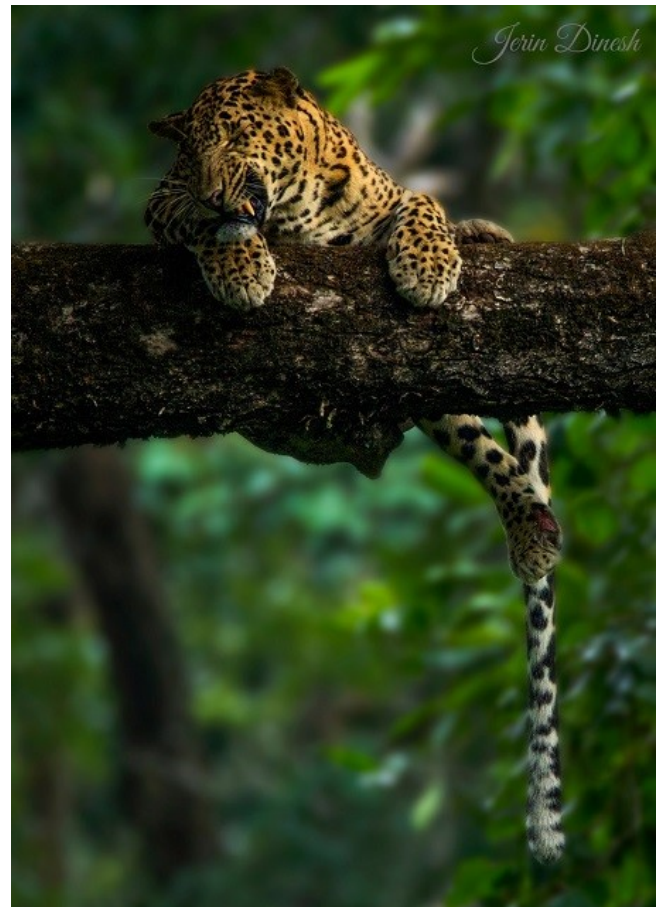
This was published on 13-07-1969

## **Wildlife Photography -**

### **Tiger in Water by Sabyasachi Patra**



### **Injured Leopard by Jerin Dinesh**

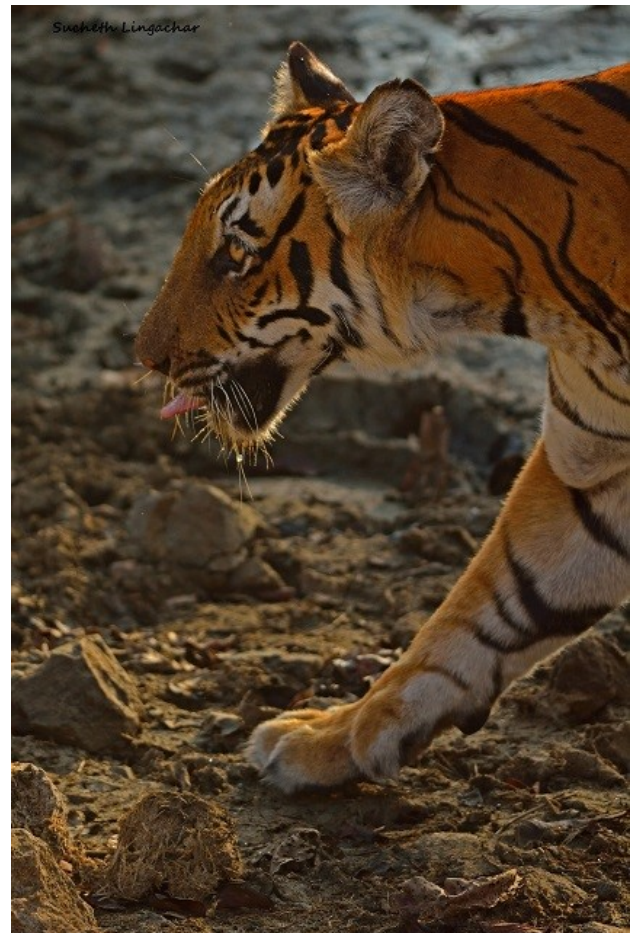




## **Wildlife Photography -** **Muntjac by Shyamala Kumar**



## **Tigress by Sucheth Lingachar**





## **Wildlife Photography -**

### **Black headed Ibis fighting for Snake by Mrudul Godbole**



### **Juvenile Fish Owl by Jerin Dinesh**



## **Wildlife Photography -**

**Katydid by Arun Acharjee**



**Dragonfly by Prajwal Ullal**







This is the **139th issue** of IndiaWilds. A lion-tailed macaque finds pride of place in the cover page. Lion-tailed macaques (*Macaca silenus*) are found only in the western ghats landscape. Primarily arboreal, these wild macaques are increasingly threatened due to the land use change. It was the British who started tea plantations in the western ghats and opened up some pristine rain forests and the human populations in those areas have been increasing ever since. The plantations have led to fragmentation of the rainforests.

This has resulted in a huge challenge for the Lion-tailed macaques. In these rainforests every month there is a different tree which flowers and bears fruits. So food used to be available throughout the year for the lion-tailed macaques. However, with the clearfelling of the rainforests and making way for plantations the species diversity is lost. So in some months the lion-tailed macaques can't find food. This problem is acute in locations like Valparai in the Tamil Nadu Kerala border.

As a consequence these lion-tailed macaques have to raid the houses of people for food. They are also given to scavenging. In these challenging times with the Covid-19 pandemic, human to primate transmission of the virus is easy. With the Government actively thinking of allowing Oil Palm cultivation in the Andamans, by examining places like Valparai, one can easily understand how a ecologically fragile place can degrade due to lack of scientific understanding of our environment and forests by the rulers. The British has gone and have been replaced by our own. However, the mentality to exploit our forests for short-term economic gains continues. Hopefully people of this country can become aware and rein in this mindless ecological vandalism.

I look forward to your inputs and support in preserving the last tracts of wilderness and wildlife of our beautiful country. For other interesting articles and images check - <http://www.indiawilds.com/forums/>

To post in the IndiaWilds forums, you can register free of cost using your Full Name as user id at -

<http://www.indiawilds.com/forums/register.php>

If you are already a member of IndiaWilds and have forgotten you user id and/or password you can mail [administrator@indiawilds.com](mailto:administrator@indiawilds.com)

Regards,

**Sabyasachi Patra**

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