



IndiaWilds Newsletter

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Increasing Roads, Vanishing Wildlife

Roads have an important bearing on our lives and often impacts the connectivity of human habitations and our current economic models suggest that roads positively impact our economy. Ofcourse this doesn't take into consideration that roads lead to accidents and mortality of humans and wildlife species, fragment habitats, change behaviour, increase pollution, reduce percolation of water impacting the water table, increase penetration of invasives, increase landslides in the mountains, etc.



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Traffic disturbing animals

Impact of Traffic Noise

However a research study has shown us the serious impact of traffic noise on wildlife.

In a research study conducted by Boise state university along with Idaho bird observatory (*An experimental investigation into the effects of traffic noise on distributions of birds: avoiding the phantom road: Christopher J. W. McClure, Heidi E. Ware, Jay Carlisle, Gregory Kaltenecker and Jesse R. Barber*) evidence was found that traffic noise has a massive impact on the migrating birds and their numbers were found to have reduced by 28%.

In this interesting experiment, researchers choose to isolate the other effects of traffic



like chemical pollution through noxious fumes and sight of vehicles so as to study the impact specifically due to the traffic noise. The study was conducted from July to October 2012 at 5900 feet Lucky Peak. The researchers conducted this experiment on a half a kilometer stretch with 15 pairs of speakers spaced 30 meters and played back traffic noise on a ridge in an area devoid of roads. The traffic noise was played for four day intervals followed by four days of silence. Some of the migrating bird species were found to have totally deserted the area due to the noise and for others the numbers had drastically come down.

Importance of vocalisations

In another study conducted on rhesus macaques (*Macaca mulatta*) has found that vocalisations has got a very big impact on their lives.

This research (*Female rhesus macaques discriminate unfamiliar paternal sisters in playback experiments: support for acoustic phenotype matching: Dana Pfefferle, Angelina V. Ruiz-Lambides, and Anja Widdig*), has thrown light on the ability of rhesus macaques (*Macaca mulatta*) to recognise their paternal kin through vocalisations. This is perhaps the first time there is evidence of acoustic phenotype matching.

Previous studies have shown that female rhesus macaques recognise their maternal kin using vocal cues. It is well known among many species who respond to each other's kin through vocalisations. However, the research on paternal kin is important as it is difficult to understand the paternity of the offspring as female rhesus macaques often engage in promiscuous behaviour even when they have already conceived.

The researchers have concluded that the rhesus macaque behavioural observations have indicated that semi free-ranging female rhesus macaques have show preference to mingle with their paternal half-sisters in comparison to unrelated females within the same group, particularly when born within the same age cohort. And more importantly, the females responded more often to calls of their paternal half-sisters as compared to calls of unrelated females even when they were not familiar with their half-sisters. The researchers say "We found that test females responded more often to calls of paternal half-sisters compared with calls of unrelated females, and that this discrimination ability was independent of the level of familiarity between callers and test females, which provides, to our knowledge, the first evidence for acoustic phenotype matching. Our study strengthens the evidence that female rhesus macaques can recognize their paternal kin, and that vocalizations are used as a cue."

These two recent research studies and many others earlier have established the importance of vocalisations in the lives of various species and the fact that traffic noise due to roads drown these communications. Some bird species have been known to change their timing of singing, find difficulty in finding mates, some have problems of miscarriage etc. In view of these established facts roads, especially the ones passing through National Parks, sanctuaries and other wilderness areas need our attention.

Killing Fields: Roads in Protected Areas

“Within India’s Protected Areas, the extensive impact of roads remains poorly understood, except in the obvious and serious instance of wild animal mortality due to road accidents” states the preamble of the **Recommendations of the Sub-Committee on Guidelines for Roads in Protected Areas**. Unfortunately, when it reaches the recommendations state, this report doesn’t have any far reaching recommendations. The complete guidelines can be found here:

<http://moef.gov.in/sites/default/files/wl-141113.pdf>

The report infact calls for status quo ie to maintain the existing roads passing through the National Parks and Core critical tiger habitats (CTH) inside the protected areas. “The roads could be maintained and repaired in the best manner possible in their current form and present width. No widening or upgradation is to be allowed. If it is an existing tarred road, it shall be maintained as such and no widening of the tarred surface or the widening of the road itself, may be done.” This decision appears to be based on the decision taken by the standing committee of IBWL thirteen years earlier in 14.6.2000.

In many national parks, sanctuaries and PAs there have been cases of illegal new road constructions, so does the forest department care about the exact width of the roads after repairs? In many National Parks, road widening is done on the pretext of maintenance as the local forest department officials come under pressure from local towns and villages and turn a blind eye.

The sub-committee also asked for creation of speed breakers in the roads. It is well known that in the roads passing through National Parks and PAs there have been mortality of charismatic species despite the presence of speed breakers. The mortality of lesser known species, birds, herpeto-fauna goes unreported.

If a subcommittee fails to re-examine a decision taken close to one and half decades earlier, despite the benefit of many research findings available today, then the purpose of such sub-committees are lost. The junior ministry officials could have arrived at status quo reports without needing expert committees.

The least this sub-committee could have done was to identify stretches of roads where there has been road kills of atleast major species and ensured that those stretches be made untarred to ensure that the vehicles move at reduced speeds in those areas.

This sub-committee report also mentions that speed limits should be imposed. Unfortunately, it is a known fact that no one adheres to speed limits while driving through forest roads. Even our city roads don’t have radars to check speeds of vehicles. When we are unable to monitor vehicles adhering to speed limits, how do we expect it to be implemented in the roads passing through our forests? Neither do we have personnel to monitor, nor do we need so many people to be moving around in the forest just to enforce speed limits and further increasing the traffic and disturbance in the forest.

Similarly, the sub-committee has asked for no horns and no littering. It is easier said than enforced. People rarely adhere to it and enforcement is difficult. Even when there is an elephant on the road, people tend to honk loudly without waiting for the elephant to cross the road. Especially in hilly terrain or while negotiating a bend people tend to blow horn. This small three and half minute film shows the manic driving, honking and stupidity in abundance.

The sub-committee has also recommended ban on night traffic on the roads and the maintenance work not to be carried out between 6pm to 8 am. Given the heat and dust raised by the ban on night traffic in Karnataka, we will see if this can be replicated in other places. It would be a good move because most of the herpeto-fauna and nocturnal wildlife take more time to cross the roads and fall victim to speedy vehicles (Study on roadkills in Chinar: <http://www.indiawilds.com/diary/road-kills-in-chinnar-road-and-aliyar/>). Ban on night traffic would be a good move, as it would be a disincentive for commercial traffic and hence there would be pressure to consider alternate alignments.

I hope the IBWL and MoEF pays attention on the crucial impact of roads passing through our wilderness areas on our wildlife and re-examines it to take stringent steps that can safeguard our wildlife and wilderness areas.



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IndiaWilds Campaign: Massacre of the National Heritage Animal

It was not long time ago that the elephant was branded as the National Heritage Animal. At that time we had hoped that it was not just lip service and the Elephant Task Force report would be implemented. Unfortunately, things have gone from bad to worse for the elephant. Not a month passes without the news of elephants being poached, electrocuted or mowed down by trains in some part of the country.

In the latest incident, seven elephants including two calves were killed on the spot by a train speeding through Chapramari Wildlife Sanctuary at 70kmph mowed them. One of the elephants was dragged 400 meters to the middle of a bridge before it stopped.



Elephant dragged by the train

There were many other elephants that got injured in the incident. The elephants came back to mourn their dead. Such is their sensitivity that they didn't attack the train that had stopped or the people. When we contrast that to the behaviour of people who turn violent when accidents occur, we realise that the elephants are more human than us. Unfortunately, perhaps we have become too cynical to appreciate such a moving scene.



This is not the first time that elephants have been brutally mowed down by speeding trains. Unfortunately, this may not be the last time as there is no action taken to reduce the speeds of trains passing through our wildlife corridors. Neither is the railways interested in creating either overpass/ flyovers or planning alternate alignments to completely avoid such gruesome murder of our National Heritage Animal. Perhaps the Railways has forgotten that its mascot "bholu" is an elephant.

If a person driving his car hits a wild animal then according to the wildlife protection act, the vehicle is immediately seized and the person placed behind bars. Unfortunately, our

Railways is immune to it. To our knowledge, never in the history of Independent India, the railways have been taken to task. Why the Indian Railway officials have never been taken to task for their repeated negligence and dereliction of duty?

Unfortunately, our wildlife neither have votes to ensure that politicians sit up and take notice, neither do our wildlife have a voice that can be understood by humans. So I earnestly urge you to be the voice of this voiceless wildlife – to raise your voice in support of our elephants.



Elephants killed in train accidents

Image courtesy - Ashok Hallur

Please write to the following important stakeholders urging them to ensure to -

- a) setup task force to create long term plans for alternate alignment of trains passing through sanctuaries and protected areas where elephants and other charismatic wildlife have been hit.
- b) immediately create well designed large overpass and underpass in the routes with well designed long slopes with ample space where large animals like elephants can easily pass while moving in herds.
- c) physically arrest and prosecute drivers and officials of Indian Railways when such accidents occur
- d) monitor speed of trains using radars and immediately arrest drivers of trains driving over speed limits in the next station.

You may write and bring this to the notice of the Hon'ble Prime Minister of India Sri Manmohan Singh, the Hon'ble Chief Minister of West Bengal and the Hon'ble Railway Minister and urge them to use their good offices to create a lasting solution to this issue.

To,

Shri Manmohan Singh

Hon'ble Prime Minister of India,
South Block, Raisina Hill, New Delhi – 110011

Email: pmosb@pmo.nic.in

Tel: +91-11-23012312

Fax: +91-11-23016857

To,

Kumari Mamata Banerjee

Hon'ble Chief Minister of West Bengal
Writer's Building, Kolkata

Email: cm@wb.gov.in

Tel: +91-33-22145555, +91-33-22145588

Fax: +91-33-22145480

To,

Shri Mallikarjun Kharge

Hon'ble Minister for Railways

Rail Bhawan, Rafi Marg,

New Delhi – 110001

Tel: +91-11-23386645

Fax: +91-11-23387333

To,

Smt. Jayanthi Natarajan

Hon'ble Minister of State (Independent Charge)

Ministry of Environment and Forests

Paryavaran Bhawan, CGO Complex,

Lodhi Road, New Delhi – 110003

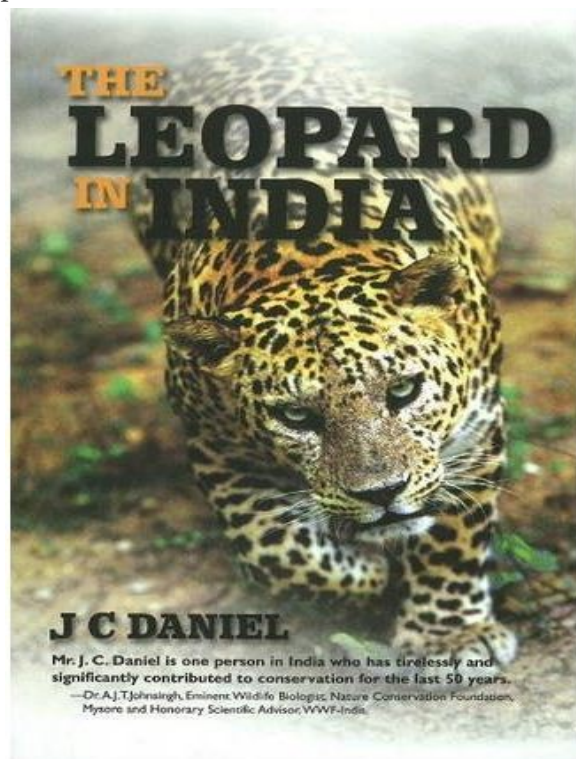
Email: mosefgoi@nic.in

Tel: +91-11-24361727

Fax: +91-11-24362222

Book Review : The Leopard in India - A Natural History by J. C. Daniel

The leopard today is disappearing at a fast pace either due to loss of habitat, poaching or simply due to persecution by people.



The apathy shown by the authorities to incidents of lynching and burning of leopards results in these incidents continuing from different parts of the country. In such a scenario, when the leopard is perhaps in its last battle for survival, we review this remarkable compilation titled “The Leopard in India : A Natural History by J. C. Daniel” to make people aware about this beautiful and charismatic species.

Mr. J.C. Daniel has done a remarkable job in pouring through all the proceedings of BNHS and filtering views, opinions, anecdotes pertaining to leopards from around the country. These writings have been organised under various chapters. The initial chapter talks about the races and gives us an idea about the prevailing beliefs. The later chapters covers topics like distribution, colour, size, weight, senses, behaviour along with its interactions with its fellow denizens in the forests as well as man. These writings not only give us a glimpse of a bygone era but also help us in understanding it better.

I would be doing a disservice to the readers if I don't share atleast a few interesting tit bits gleaned from the book has been shared below.

Leopard eating a Scorpion:

A report from H S Wise published in July 1887 talks of a unique incident of a leopard eating a scorpion “When walking through a jungle in the district of Canara I came upon the fresh tracks of a panther, and following these tracks a short way, I found some fresh panther's droppings, embedded in which were the remains of a large black scorpion. It was evident from the way in which the scorpion's remains were embedded in the droppings that the panther had eaten and partly digested the scorpion”. (page 128).



Leopard engaged in cursory predation

The leopard is a stalk and ambush predator and is not known to chase its prey like a cursory predator. It is not known to chase long distances to get its prey down. However, Mr J. C. Daniel could manage dig out one such incident reported by J. H. Coode of Nagpur "...when just as it was getting dark, we heard the short guttural sound of a Panther and heavy footfall of some running animal. The noises came nearer and nearer, until a Nilgai and a Panther could be distinctly seen against the skyline, the former being chased by the later. The Nilgai kept moaning, and was evidently in an abject state of fear.

The two ran round in a circle of about 160 yards diameter within 30 yards of where we were standing, and passed us twice, both of them making their respective noises. They then disappeared, but I have reason to believe the Nilgai got away. I was so interested in the sight that I did not think of firing, but it would have been an exceedingly difficult shot in the dusk." (page 128-129)



Leopard running

Leopard's Mistaken charge on a man

In an interesting incident related by G. P. Millet about his encounter with a leopard in the Ghaved forest of Thane District, Maharashtra in 1894.

"...I went a couple of hundred yards along the ridge and then commenced to descend again through a thicket of coppice, dense enough to make progress slow and laborious. I placed my gun in the hollow of the left arm, gripping the stock from beneath and sloping the barrels outwards, whilst, with my right hand, I cleared a way as I went down the slope. I had got about half way down, and had just reached a small level bit of open grassland when, as I emerged from the thicket, I saw a panther charging straight for me. I had only time to seize the gun in my right hand and to get the thumb one on hammer in an endeavour to cock it, when the beast was at my feet. Vision of a hospital flashed across my mind and I did the only thing I could think of at the moment, which was to hit the panther over the back with the gun. From the way I was holding the gun it will be understood that the blow I was able to give was not a hard one. It was, however, sufficient to turn the panther. He slewed to my left, brushing my leg the whole length from two inches above the knee to the angle with his body, and sprang on to some rocks about five yards to the left, where he appeared to halt for a fraction of a second before springing down and bounding out of sight. As he sprang away from me I finished the cocking of the right barrel and brought up the gun to my

shoulder, but the thought occurred to me that a charge of No. 8 shot in the stern at five yards could not be immediately, if at all, fatal, and might bring the panther round upon us and whilst I debated about firing, he disappeared..... About 100 yards further away from where I met him I found the flattened space where he had been lying in the grass. Why he should have charged at me deliberately in the way he did (his ears were flat to his head and he came at full speed but *ventre a terre*) and then have made no effort to scratch or bite me is best known to himself. My theory is that he mistook me coming quietly through the dense thicket, for a *bekri*: (muntjac) my shikar clothes and putties may have aided the deception. He started to charge and win an easy prey and was as flabbergasted as myself when he saw the mistake he had made.”

This book with 271 pages was first published in 1996 and the second revised edition was brought out in 2009 by Natraj Publishers. Priced at 395 rupees, this is highly recommended for naturalists, researchers, students as well as the common man with interest in wildlife. The current price in Amazon.in is Rs. 277/-

http://www.amazon.in/The-Leopard-India-Natural-History/dp/818158127X/ref=sr_1_1?ie=UTF8&qid=1385394979&sr=8-1&keywords=The+Leopard+in+India

Conservation News -

Amur Falcon Migration

In 2012 the massive scale of trapping Amur Falcons in Nagaland during their annual migration path had come to light.



© Praveen Siddannavar

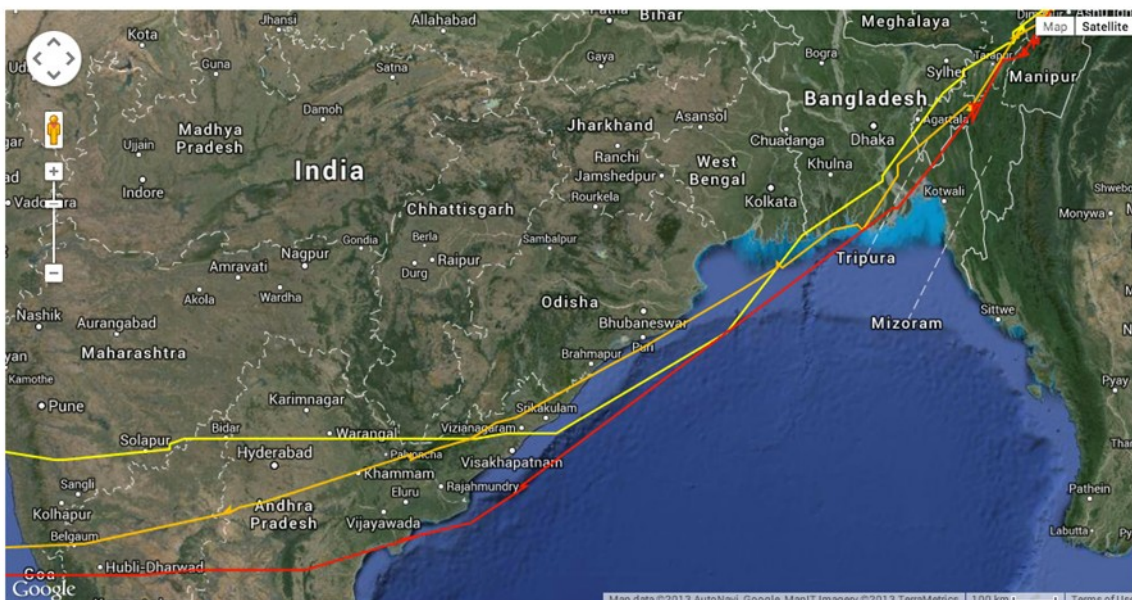
There were several ballpark estimates about the number of Amur Falcon's trapped last year with one as high as 140,000. The Chief Wildlife Warden, Dimapur, Nagaland has pegged the number of Amur falcon's killed last year at 30,000.

The Amur Falcon's have got a very long migration path despite its relatively small size. This year an Amur Falcon partnership has been formed between

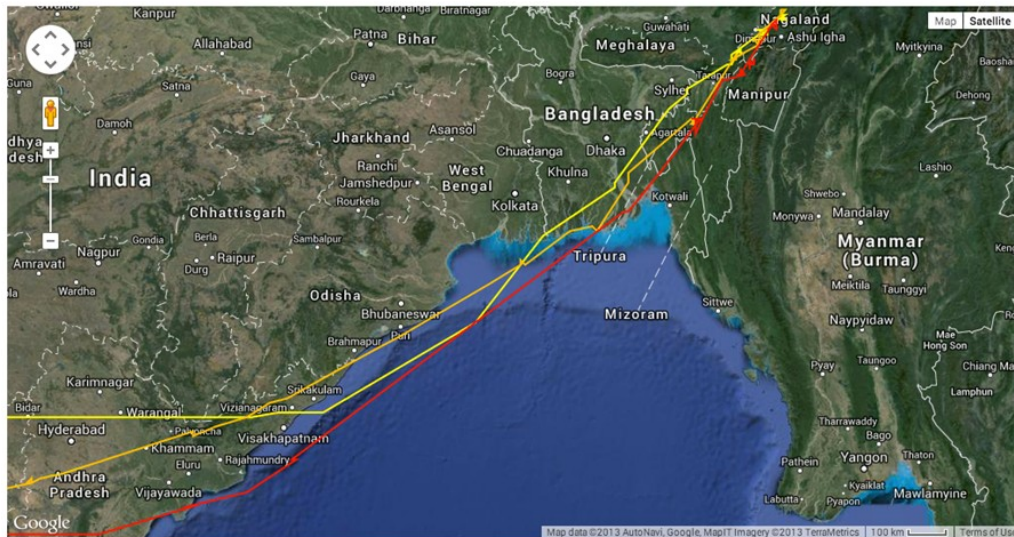
- MoEF
- Wildlife Institute of India (WII)
- Department of Forests
- Ecology
- Environment and Wildlife
- Government of Nagaland
- CMS Memorandum of Understanding for the Conservation of Migratory birds of prey in Africa and Eurasia (Raptors MoU)
- MME/BirdLife Hungary and
- Hungarian Natural History Museum

Accordingly three Amur falcon's have been fitted with satellite transmitters and set free. The resulting data will help us understand its behaviour and migration path.

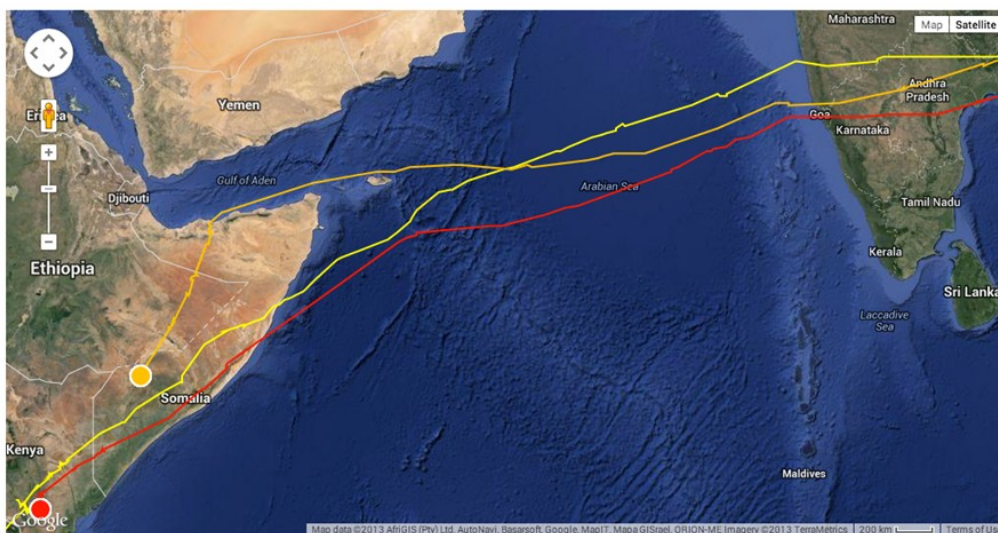
The following satellite tracking images of the three falcons have shown that more portion of their route is over the ocean, which is not the shortest distance. The wind and ocean currents are a better help to them making them spend less energy as opposed to flying through the shortest distance which makes them fly more over land. Birds are also known to vary their altitudes though the flying routes remain imprinted in their brains.



Flight path from Nagaland, India. Major part over the Bay of Bengal



Flight path in India more on the sea than on the land



Majority of the flight path is on Ocean while crossing from India to South Africa

Once scientists pour over all the data including that from their return migration, we all would be wiser and it would throw a lot of pointers towards better preservation.

Equipment Discussions -

Canon announces Dual Pixel AF for C100

In an interesting development Canon has announced that it will make the dual pixel auto focus feature available in the Canon C100 video camera. The Dual Pixel AF feature was first introduced in the Canon EOS 70D DSLR camera which helps in smooth auto focus in the video mode. This feature in the EOS 70D was well received. So now Canon has decided to offer this dual pixel AF to be introduced in the C100 through a hardware upgrade and will be available in February 2014. This is the first time Canon is deciding to use this technology in a C series camera.



Dual Pixel AF for C100

One can use all the EF lenses with autofocus ability to benefit from the Dual Pixel AF technology.

Autofocus technology was earlier not good and hence professional cinematographers and videographers used to hate autofocus. The autofocus used to also introduce micro jitters. However, the autofocus technology has now improved a lot and has reached a stage where it can be a big help in certain situations.

The C100 camera introduced at the bottom of the C series professional cameras had first had one shot AF and Canon had announced that it would autofocus with its STM lenses. However, it is a big and strategic decision to go for a factory hardware update of these cameras to introduce the new AF technology. This AF technology will help people shooting events, sports, fast erratic movements as in wildlife etc.

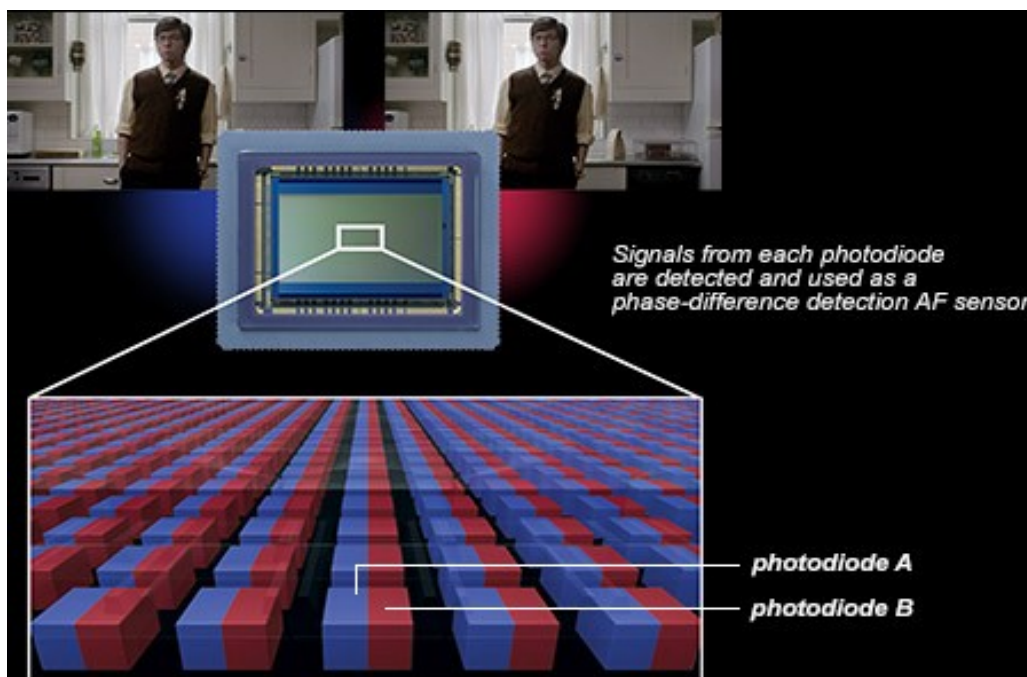
This upgrade will cost 500 USD.

Given that Canon has announced the one shot AF to be included in the C300 via a firmware update this month, I hope Canon also offers this option to the C300 users as well who also shoot lot of events and documentaries.

How does the Dual Pixel AF work:

The EOS C100 camera with Dual Pixel CMOS AF technology features a CMOS sensor that consists of an array of pixels that each feature two separate photodiodes. By continuously comparing their outputs during AF mode, phase-difference autofocus helps ensure non-blurred images even when the talent and/or camera are moving. The new feature places a high prior-

ity on image quality, providing a natural, smooth autofocus movement with all Canon EF lenses – including newer-generation STM lenses – offering quieter operation.



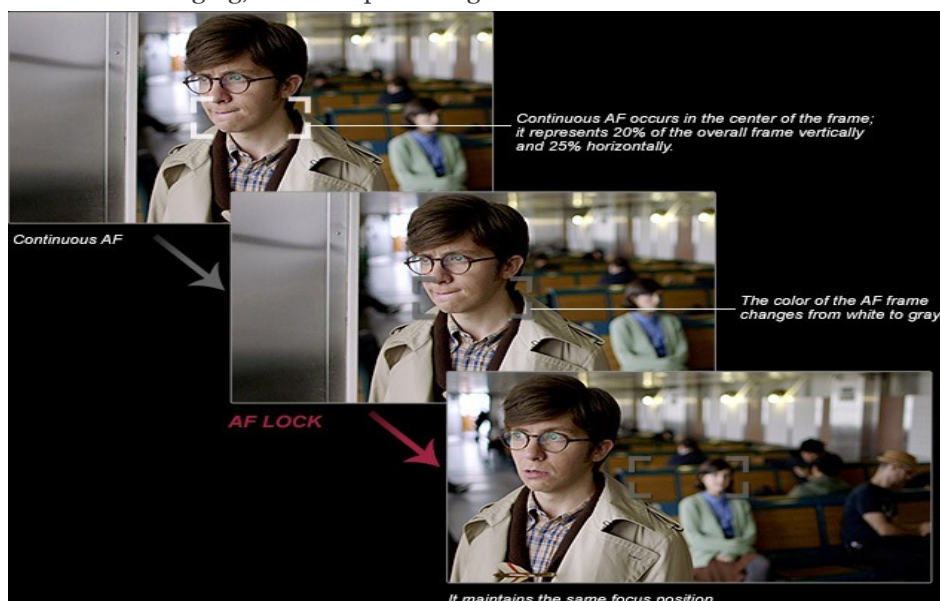
Distagon T*55mm f1.4 Otus Lens

After this modification, the EOS C100 camera's Continuous AF function in the middle of the frame represents just 20% of the overall frame in the vertical plane and 25% horizontally, the remainder being used to define the sharpest section of the image for tight, accurate video resolution even when the camera is moving. The AF Lock mode allows you to set the focus point and hold it, thereby making it possible to change framing while maintaining the same focus position.

Dual Pixel CMOS AF Benefits

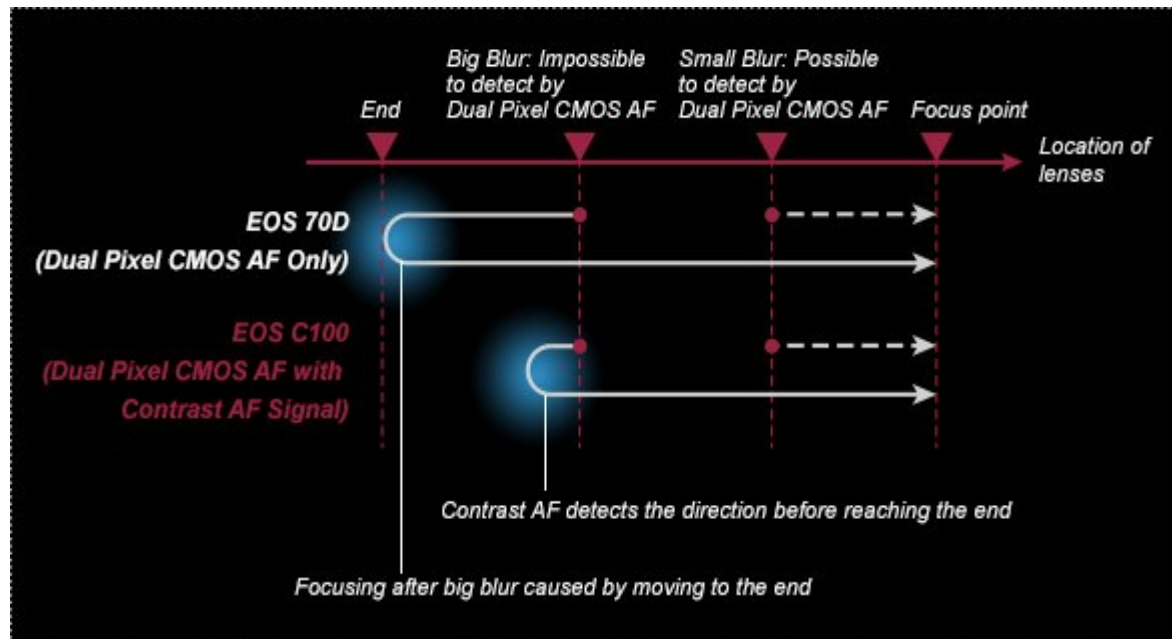
FAST, SMOOTH AF DURING VIDEO CAPTURE

A modified EOS C100 camera's set-up menu offers two options for “AF Mode” – One-Shot AF and Continuous Autofocus – with AF Lock also becoming an option for the camera's assignable buttons. During filming, you simply press this button to prevent Continuous AF from changing, and then press it again to re-enable that mode.



FASTER ONE-SHOT AF MODE

The combination of Contrast AF and Dual Pixel CMOS AF helps ensure that autofocus adjustments will move in the correct direction, and not hit the end of its range and then have to change directions to locate the correct setting. As Contrast AF can now detect the correct focusing direction, thereby eliminating a random search, a modified EOS C100 will focus twice as fast as an unmodified camera, with a more natural look and no overshoot. Because the current One-Shot AF mode uses only Contrast AF, movements can be jerky with overshoot anomalies.



The factory-installed upgrade for the EOS C100 camera is targeted at users who regularly shoot moving subjects, or who want a smoother, more natural-looking autofocus feature. Specific markets include documentary filmmakers, electronic newsgathering, sports productions, weddings and similar special events, nature and wildlife, and many others.

Disclosure: Technology details and images courtesy Canon press release

Nikon goes retro with Df DSLR without video

Nikon has launched the Df DSLR in the FX format. This interesting DSLR is retro-styled, looks elegant and brings back memories of cameras we used two decades back. This is a still photography camera and doesn't have the video function that we are so accustomed to these days. One can again feel the solidity of the buttons in changing shutter speed or aperture etc. I won't be surprised if this camera is bought for its looks alone.



Nikon Df DSLR

Salient Features:

- same 36 x 23.9mm CMOS sensor from the flagship D4 camera
- 16.2 Mega Pixel
- EXPEED 3 engine
- ISO - 100 to 12800, expandable to 204800
- 39 Point AF system with 9 cross type sensors, seven AF points working at f8. AF modes selectable between 9 point, 21 point, 39 point and 39 point with 3D tracking and Auto area AF.
- 2016 pixel 3D matrix metering
- 5.5 fps burst speed
- 3.2 inch 921k dot LCD screen
- Viewfinder with glass pentaprxm with 100 % view
- Built in HDR (High dynamic range) mode
- Price: 2749.95 usd for body only.**

The detailed press released is shared below - Sabyasachi

PRESS RELEASE

Fall in Love Again: New Df D-SLR is Undeniably a Nikon with Legendary Performance and Timeless Design

Photo Pros and Enthusiasts Alike Will Embrace the Lightweight FX-Format Df D-SLR, Which Strikes the Ideal Balance of Classic Iconic Style and Advanced Imaging Technology

MELVILLE, N.Y. – The new Nikon Df is a modern classic designed for those who have felt a connection to their camera, who revel in the idea of going out to photograph an unfamiliar location, and who know the effort and ultimate satisfaction that is part of getting the shot. Announced today, the Nikon Df is a unique, advanced-level D-SLR that harmonizes Nikon heritage and modern performance in a lightweight and very capable FX-format camera. The new Df pays homage to the enduring style and controls of Nikon's distinguished "F" series of 35mm film cameras, yet features technology similar to Nikon's professional flagship D4 D-SLR. Released alongside the similarly styled AF-S NIKKOR 50mm f/1.8G Special Edition lens, Nikon's newest FX-format D-SLR presents a versatile and reliable option to help passionate photographers truly achieve their creative vision.

"Nikon cameras have played an important role in documenting world history for the better part of 50 years, and have earned their position as a reliable tool that pros and enthusiasts can count on. The Nikon Df represents much more than a storied legacy of cameras; it's more about giving the user a chance to truly enjoy the experience of taking amazing images," said Ma-

sahiro Horie, Director of Marketing and Planning, Nikon Inc. “The design is unwavering, and the features are the latest in Nikon imaging technology. The Df brings together the best of yesterday and today for advanced full frame photographers.”

A Classically Styled, Thoroughly Modern Masterpiece

From a robust feel, to mechanical dials and finely detailed craftsmanship, the Df embodies the very best of Nikon’s photographic legacy. The classically styled camera recalls design cues such as a recognizable pentaprism and top cover, which is now constructed of durable, lightweight magnesium alloy. The top of the camera features elegant yet sophisticated mechanical controls for settings, letting users feel the tactile reassurance of adjustments, such as a familiar click stop for shutter speed adjustment. Additional dedicated dials also control ISO, exposure compensation, release mode and exposure mode, while modern controls are also easily accessible. The intuitive control layout allows for quick and confident setting adjustment, yet retains a solid operational experience that “feels like a Nikon camera.”

The Df has been designed with an emphasis on familiar intricate details made famous from previous generations, including the leather-textured top and grip, along with the body mounted shutter button with a threaded release port. The design also recalls the slenderness of the previous generation’s cameras, making this the smallest and lightest FX-format camera in Nikon’s lineup.

It isn’t all about good looks though, as this enduring design is coupled with legendary performance to create a very capable and extremely appealing FX-format offering for professionals and enthusiasts. The 16.2-megapixel FX-format CMOS sensor of the Df is inherited from Nikon’s professional flagship D-SLR, the D4. The large 36 x 23.9mm CMOS sensor is praised for its ability to produce amazing image quality in a wide variety of lighting conditions. Whether shooting landscapes, wildlife or weddings, the frames captured with the Df exhibit amazing clarity, accurate color and a broad dynamic range. In addition, Nikon’s exclusive EXPEED 3 image processing engine helps propel image quality, yielding images with a natural color and depth, all while enhancing subtle and nuanced tones.

Additionally, like the professional Nikon D4, the Df performs well in a wide variety of challenging lighting conditions with an exceptionally wide ISO range from 100 to 12,800, expandable to a staggering ISO 204,800. The combination of low noise and wide range make this an appealing camera to take on the challenges faced by photojournalists and event photographers, as well as those who enjoy the pursuit of extracting otherwise impossible images using natural light.

A Feature Set for Passionate Photographers

The Nikon Df is engineered to enhance the experience of taking photos and represents a culmination of decades of experience and feedback from photographers in the field, the studio and the sidelines. From its proven AF system to modern connectivity and legacy lens compatibility, the Df contains the century’s best photographic features for an enjoyable all-day shooting experience.

AF System:

The convenience and precision of Nikon’s 39-point AF system is proof-positive of the benefits of modern technology. With 39 selectable AF points throughout the frame for precise focus, the Df also features nine cross-type sensors, and seven AF points capable of working down to f/8. Users can also choose from a variety of AF area modes to match their shooting style: 9-point, 21-point, 39-point, 39-point with 3D Tracking and Auto Area AF.

Get the shot with 2016-Pixel 3D Matrix Metering and Scene Recognition System:

This Nikon system analyzes each shooting scenario and determines proper camera settings, resulting in even exposures, accurate white balance and precise AF. To capture action sports, wildlife and other fast moving subjects, the Df has a continuous burst shooting rate of up to 5.5 frames-per-second (fps).

Compose with a 3.2-inch LCD Display and Glass Pentaprism Viewfinder:

Users can easily compose through the high-resolution LCD screen or the bright optical viewfinder. The LCD screen has 921K-dot resolution, making it easy for users to adjust additional settings, review images or compose using Live View. Using the glass optical viewfinder, users will enjoy 100 percent accuracy and a bright field of view. What's more, the shooting data presented through the viewfinder has also been updated and digitized.

Connect and Share Instantly:

Another modern touch allows users to connect and share their images instantly using the optional WU-1a Wireless Mobile Adapter*(1). By connecting to a mobile device, users can download and share images or remotely fire the camera.

Features for Creativity:

Photographing dramatic monochrome or vivid landscapes is easier with Nikon's Picture Controls, which allow for the customization of color, saturation and tone. The Df also features built-in High Dynamic Range (HDR) to combine multiple shots with enhanced tonal range, and two to five-frame auto-bracketing. For maximum control, images can also be captured in JPEG, TIFF or RAW file formats.

Support for a Storied NIKKOR Legacy:

In addition to being compatible with all current AF, AF-S, DX and AF-D NIKKOR lenses, the Df is also compatible with classic Ai and non-Ai NIKKOR glass. Thanks to a new metering coupling lever located on the bayonet, the user has the ability to once again enjoy their lens collections with renewed functionality. Full-aperture metering is also supported.

Accessory System Support:

The Df is compatible with Nikon's Creative Lighting System (CLS), letting users take advantage of i-TTL exposure or fire multiple units remotely using a Speedlight commander. To remotely trigger the shutter, the camera also supports the new WR remote system, as well as the threaded AR-3 cable release, which screws in to the shutter button in the traditional style.

A Classic FX-Format Special Edition NIKKOR Prime

The new AF-S NIKKOR 50mm f/1.8G Special Edition lens is the result of classic NIKKOR styling combined with today's optics to create the ideal focal length companion lens for the Df. The design honors original NIKKOR Ai lenses, with colors, texture, and an aluminum mounting ring that is mated to the style of the Df. This lens is ideal for everyday portraiture, landscapes and casual photography, but offers a wide aperture and seven-blade diaphragm for natural image blur and a dramatic depth of field. Despite the timeless design, the 50mm f/1.8G is created with modern AF-S design benefits to give photographers rapid response, quiet operation and excellent sharpness and clarity throughout the frame.

Price and Availability

The Nikon Df will be available in late November 2013, invoking classic Nikon silver and black color schemes. The suggested retail price (SRP) of the Df (body only) will be \$2,749.95*, while the Df and 50mm f/1.8 Special Edition lens kit will have a SRP of \$2,999.95*. The AF-S NIKKOR 50mm f/1.8G lens will be sold separately for a SRP of \$279.95*. For an additional flair of nostalgic style, Nikon is also offering black or brown leather carrying cases, the CF-DC6B and CF-DC6S (pricing and availability to be announced).

About the NIKKON brand

With a comprehensive assortment of FX and DX-format lenses and focal lengths, from the ultra-wide 10-24mm to the super telephoto 800mm VR, Nikon photographers have come to rely upon the NIKKOR core technologies that contribute to their optical superiority. NIKKOR is the brand name for Nikon's photographic lenses, which are precision crafted to the most exacting standards in Nikon's own glassworks. In 1933, Nikon marketed its first camera lens under the NIKKOR brand name,

the "Aero-NIKKOR" for aerial photography applications. Since then, NIKKOR has been used as a brand name for Nikon's lenses that symbolizes durability, high image quality and optical excellence.

Natural History -

COUNTRY NOTEBOOK: M.Krishnan: 'A change of fare'

The Sunday Statesmen 03-Nov-13 (shared by Shri. Saktipada Panigrahi)

Sparrows Hunting Insects

"ANY third form text will tell you why the sparrow has such a thick bill. The better to eat seed with, of course. Most finches have stout, short bills that come in very useful in getting the grain off the ripening crop and in battering people know, the bird is not born with this seed eating bill. The infant sparrow is horribly naked and helpless, just a blob of greedy, pink flesh with a wide, soft, yellow-rimmed gap for a mouth. It cannot thrive on hard seed. So its fond parent brings it grubs and insects with all appendages removed so that it might grow apace on softer and more readily ingested fare.



© Sabyasachi Patra/www.indiawilds.com

Male Sparrow

Many other seed-eaters, besides sparrow, also feed their young on an insectivorous diet. But sparrow and weaver-birds are, perhaps, more adventurous in their hunting when they have young than even some insect-eaters. The size of the quarry these stout-built birds will tackle then is truly astonishing. They will pounce upon fat, big grasshoppers and batter the prey to pieces till only the soft body, free of all chitin remains.

Once I watched a hen sparrow kill a large green mantis quite as long as itself. The bird began the attack with a few sharp sideways pecks that disabled but did not immobilise the insect; the mantis flew around desperately, its hunter following every turn and twist in the air, driving in a peck at every landing, till it was no longer capable of flight. Then followed a slow process of dismemberment. The killing, from the attack to beheading, took almost 15 minutes.

When you see sparrows hunting insects you may be reasonably sure they have broods. I used to think this an infallible sign of a loud nest somewhere at hand, but am less sure now. It is about this time of the year this sparrows are most given to nesting, but for the past week I have been following activities of three sparrows hunting insects steadily and I have watched

them sufficiently closely to know the fact that they have no nests or young.

These are grown birds, a cock and two hens, but all of them look first-season birds to me. Beyond a lack of fullness in the cock's black bib, and a certain uniformity in the grey-brown of the hens' plumage, I have no reason for thinking that they are not quite mature but that is feeling I get. From the morning till nightfall the haunt the open garage and the many eaves of the two houses next to the cottage where I am now.#

Sparrows in this place, by the way, are rare birds. These three start their hunting with the earliest light, and are busiest in the mornings and late afternoons. One of them hangs in the air on quick-beating wings below a skein of cobweb, very much in the manner of a sunbird hovering before a flower; it clutches the skein in a foot and flies away till it is dragged clear of the roof, then just lets go (as we couldn't if we swept it aside - the web will cling to our fingers) and darts up into the cleared space for a quick peck. The bird descends to the ground with a spider in the beak, which it pecks at once and then gobbles up, before resuming its hunting. I think it is the small spiders which spin neat little tents of white across pits in the wall that the birds hunt oftenest, but I have often seen them tugging at the long, dust-laden festoons of cobweb, silvery grey against the dark paint of the roof.

Another sparrow is looking for termites. It pecks at a crust on the garage wall, hovering on quick wings an inch from sheer mortar, and then pecks up the termites that emerge. The way it goes up and down vertically, chasing a termite on the wall, displays a deftness of wing that one would not normally credit a sparrow with.

I can give no list of the insects and arachnids these birds hunt, but once I saw one of them catch some prey in the air - this was the only aerial hunting I noticed. And I have even seen them chasing the small grasshoppers on the withered grass, though I don't remember seeing one caught. It could be that living in a place where their natural food is scarce (as is shown by absence of seed-eaters here) the birds have been driven to seek strange meat, and it could be that when they are more mature they will learn to foraging far for grain, but all this does not really account for the quite remarkable adaptability that these young seed-eaters show in getting their sustenance, and their efficiency hunting fleeing quarry."

- M.Krishnan

This was first published on 15 May 1955 in The Sunday Statesman

Natural History -

The Life Cycle of Common Crow butterfly (*Euploea core*)

by Jobymon Cherayil Prakesh

I am living in Kerala, Kottayam, a valley in the Western Ghats. There are many species of butterflies, moths, tree frogs and other small insects which are only seen in the Western Ghats.

I saw the caterpillar of common crow butterfly (*Euploea core*) in its different stages of growth on a plant . I photographed it and after two days all disappeared from that plant. After fifteen days I found one on the wall of my well. It was about 50 mts from that plant.

It was hanging on the wall and was transparent. It had fixed the tail side on the wall, which unfortunately I could not photograph (as early morning there was not enough light). After one hour I saw it become pupa(image-3). The first frame of pupa it was not steady and small. With in hours it had transformed into the fourth stage.

After two days it become dark brown with silver shades. In night the silver colour was reflected in light. After nine days, in the morning at around 6 am, I saw the silver color had disappeared and turned into chocolate colour. That morning at around 7.30am the butterfly emerged. I had witnesses one of the most fascinating dreams of nature.

Below are the images of the full life cycle -



1st Stage - Caterpillar



2nd Stage - Caterpillar feeding on leaves

The Life Cycle of Common Crow butterfly (*Euploea core*)

by Jobymon Cherayil Prakesh



3rd Stage - Pupa



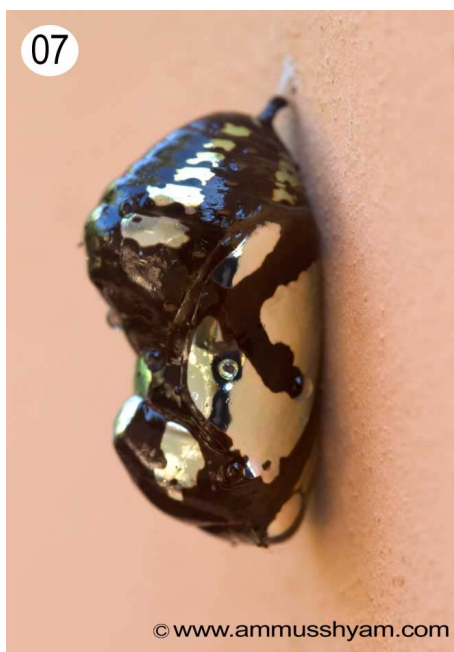
4th Stage - Pupa (shaking)



5th Stage - Pupa (still)



6th Stage - Pupa (3rd to 6th stage in 3.15 hours)



7th Stage - Pupa (dark brown colour with silver)



on 9th day pupa early morning,

The Life Cycle of Common Crow butterfly (*Euploea core*)

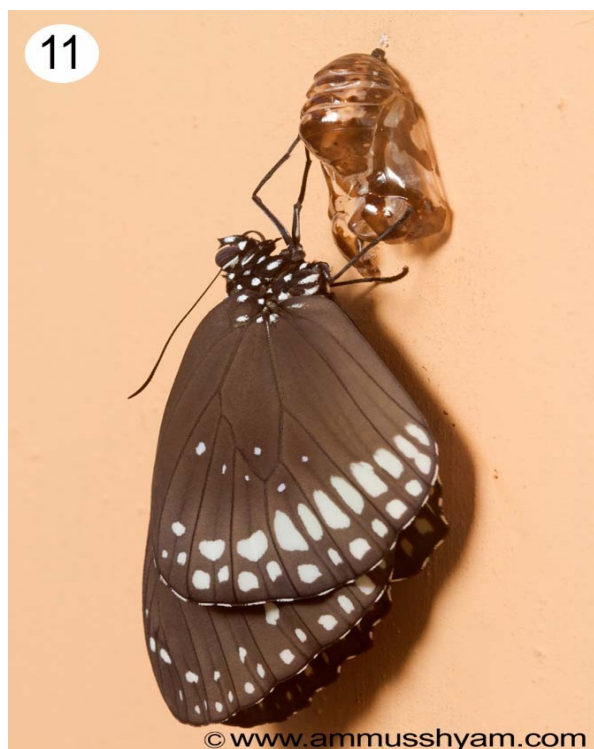
by Jobymon Cherayil Prakesh



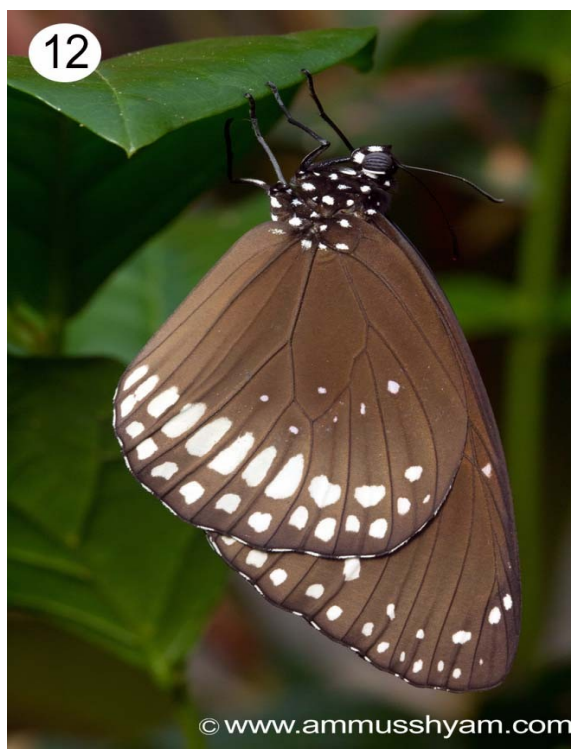
shivering pupa opens from the side and



When it emerges, its wings are very soft and look like silk



20 minutes after it had emerged from the pupa..



After 1.30 hours, it fell down and climbed on a leaf. It took 2.30 hours to fly away as a beautiful butterfly...

Natural History -

Nesting behavior and Development stages -

Malabar Gliding Frog, *Rhacophorus malabaricus* (Jerdon, 1870)

by Dr. Amit Sayyed

Rhacophorus malabaricus is a well known species of the moss frog belonging to Neobatrachia which is the suborder of the Anura. *Rhacophorus malabaricus* is endemic to the Western Ghats of India. *Rhacophorus malabaricus* is classified as least concern by the IUCN Red List of Threatened Species, and the Red List status was evaluated by Dinesh, Radhakrishnan, Gururaja, Deuti and Bhatta (IUCN Red List 2013).

Body length of this frog is about 10 cm. Males are smaller than females. Its back skin is thinly granulated and the color is bright green. Adult frogs have no markings on its back; the belly is more roughly granulated and is mainly pale yellow. There are skin fringes between and along the long limbs, and the webbing between fingers and toes is large and orange- reddish. The disks of fingers and toes are large. It has got a rounded snout with nostrils located nearer to the end of the snout than to the eyes.

The word “Gliding frog” refers to the ability of this frog to break its fall by stretching the webbing between its toes while jumping down from the top of the tree. This helps the frog land softly on another branch or on the ground.

The *Rhacophorus malabaricus* is an arboreal species inhabiting the tropical moist evergreen forest, deciduous forest, secondary (disturbed) forest and coffee plantations. One can find them in the lower canopy and understorey levels of the forest. Unlike other frogs, the *Rhacophorus malabaricus* build nest in the trees.

Study area and period:

The Nesting behavior of *Rhacophorus malabaricus* have been previously published by researchers (Kadadevaru and Kana-madi 2000). We decided to carry out field observations in some parts of Amboli, Sindhudurg, in the State of Maharashtra, India between 2nd June to 25th August 2013. Mating and nesting behavior of the Malabar gliding frog *Rhacophorus malabaricus* was observed and the development stages of this frog were also recorded.

The hibernation phase of the frogs end with the onset of heavy rains. In this starting phase males resort to calling (as shown in image below) and proclaim their territory by vocalising.



This species has a variable calling pattern. Usually the call is made up of a series of loud pulses of about 0.03 seconds duration, (Daniel and Hampson 2000). To attract females, the males produce typical calls. The female of the species selects a male for mating and then chooses a leaf of a tree for spawning which is located over a water body.

The female rubs the back of the male by her hind limbs during amplexus triggering the male to release seminal fluid and a foam nest is created (image below). The female too sleeps after finishing the nest building activity. While amplexus three or



above Image courtesy: Abhishek Jain



more males can be seen near by, combating with each other over the right to mate with female. One nest was observed at the site to see the eggs and to take the measurements. A Yamayo digital caliper (0.1 mm) was used to take measurements. Eggs are cream in color and size of the eggs is 2.55 mm to 2.65mm, when the measurements were taken.

An embryo develops in the foam nest, and after 5 to 7 days tadpole's drop in the water. Rain plays an important role in the development stages of *Rhacophorus malabaricus*, as like other Amphibians. Due to rain showers binding material get washed and the foam nest is left open to drop the developed embryos into water. On 17th June 2013 ten tadpoles were observed in the water

body (image above). They were duly measured and released back in the water body. The detailed measurements are given in the table below:

Specimen no.	Measurements		
	Total length of tadpole in mm	Snout to vent in mm	Tail length in mm
1	12.77	3.86	8.91
2	11.89	3.62	8.27
3	11.30	3.24	8.06
4	12.42	3.73	8.69
5	12.14	3.58	8.56
6	13.04	3.94	9.10
7	12.37	3.70	8.67
8	12.59	3.80	8.79
9	11.82	3.66	8.16
10	11.40	3.32	8.08



Within 12hrs first measurement were taken (Snout to vent 3.86mm, tail length 8.91mm) total length of tadpole 12.77mm. As per measurement of observed tadpole specimens, size of the tadpoles varied from 11.30mm to 13.04mm.

On 23rd June 2013 a measurement was taken on one specimen (snout to vent 14.85mm, tail length 27.59mm). The total length of tadpole was 42.44mm. The (image on the left) growth of the tadpole can be easily observed.



On 3rd July 2013, the third measurement was taken and the tadpole was observed (above image) developing hind limbs (snout to vent 13.72mm, tail length 28.78mm). The total length of tadpole was 42.50mm.

On 12th July 2013, fourth measurement was taken, and the tadpole (above image) was observed to be developing fore limbs (snout to vent 13.46mm, tail length 27.92mm), total length of tadpole was 41.38mm.



On 21st July, the tadpole was fully developed and the tail had disappeared, (image on the left). About 8 to 15 days were taken for the tail to drop. *Rhacophorus malabaricus* took 35 to 45 days to complete metamorphosis.

If the habitat or environmental conditions are not suitable for the nest, these frogs can make terrestrial foam nests. Modification of the reproductive mode from arboreal to terrestrial may be an adaptation to the changed environmental conditions. (Girish G. Kadadevaru and Ravishankar D. Kanamadi, 2000).

*All Images by Amit Sayyed (unless mentioned)

Image of the Month -

The honour for the Image of the Month for October 2013 goes to the image titled -

"Indian Flying Fox" by Roopak Gangadharan

Original text from Roopak:

“Flying foxes plays a vital role in pollination of many tropical fruits the most well know of course is bananas. In its natural form bananas are almost exclusive pollinated by fruit bats. The flowers of the inflorescence contains nectar on which the bats feed. The rampant persecution of this species is a result of superstition and half knowledge so much so that about 14 species of flying foxes world over have become extinct. To a generation relying on cultured and hybrid varieties of plants which do not need pollination to fruit, the importance of this creature is perhaps lost out. May be the importance of wild varieties of fruit as genetic reservoirs and exclusive exports to economies why rely on tropical fruits for their survival will bring in some focus on their protection. “

500D, 55-250, 250mm, Ae, F7.1, ISO 800, SS1/100. Cropped image made in low light.



Wildlife Photography -

Jungle cat a sudden encounter by Kaustuv Chatterjee



Leopard in Kabini by Praveen Siddannavar



Wildlife Photography -

Smooth coated otter: conversations by Bibhav Behera



Little Grebe with its family by Kaleeswara Srikanth



Wildlife Photography -

Goliath Heron by Vipin Sharma



Plaintive Cuckoo female shot with a compact camera by Samrat Sarkar



Wildlife Photography -

A hint of a danger in a peaceful landscape? By Shyamala Kumar



Thoovanam Waterfalls, Chinar, Kerala by Prathapan Ramachandran



Wildlife Photography -

Summer view of the Siang river by Kaling Dai



I look forward to your inputs and support in preserving the last tracts of wilderness and wildlife left in 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 your user id and/or password you can mail to administrator@indiawilds.com

Regards,

Sabyasachi Patra

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