WORLD PHEASANT ASSOCIATION INDIA

Mor

Newsletter of World Pheasant Association - India

Editorial:

World Environment Day 2012 and the year following is being celebrated as - ***Green economy- does it include you*** ? In other words, an economy that is 'low carbon, resource efficient and socially inclusive'. The global economy can only boost up when we will have plenty of natural resources in the form of forests and rivers from where the whole world's resources are derived. Our pheasants are also directly linked to the green economy; more forests, more diverse habitats, more chances of their survival.

We are very grateful to ***The Duleep Matthai Nature Conservation Trust*** for its generous funding support to WPA–India towards the publication of ***Mor*** in pursuance of one of its objectives for dissemination of knowledge and conservation efforts to the wider public.

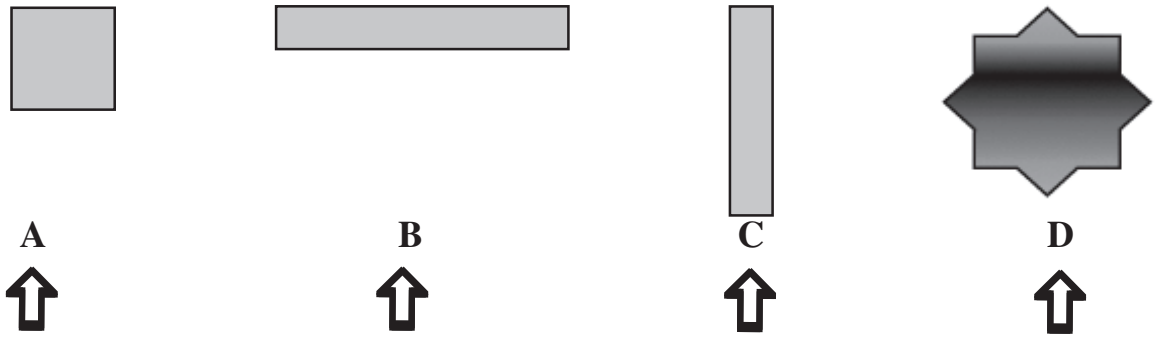
In this issue we have published new pheasant aviary designs used around the world, which can act as models for *ex-situ* conservation efforts for the pheasants. The articles on Western Tragopan Pheasantry in Himachal Pradesh, Grey Jungle Fowl in southern Aravallis in Rajasthan and Peafowl in Aravalli Biodiversity Park, Delhi, provide interesting and useful information on these topics.

Green Economy - save pheasants- does it include you?

Dr. M. Shah Hussain, Hon. General Secretary

New Pheasant Aviary Designs Around The World

Please imagine, as you read this, that you have committed a very serious crime for which you have been found guilty. You are about to be sent to prison for the rest of your life. Your crime is such that you will never be allowed to leave your cell to mix with any of your fellow prisoners and, because there is such an interest in your case, the public will be allowed to observe you within your prison cell. Since you will be isolated in this cell, the justice system will provide a mate for you, but not of your own choosing. You will be expected to procreate even though the public will be watching. The judge who will pass sentence on you will allow you one favour; you may choose the shape of the prison cell in which you will spend the rest of your life. The public can only observe you from one side, as indicated in the diagram below. All four prison cells have the same area.



Which prison cell will you choose?

I suspect that most of us would select prison cell D as it allows some degree of privacy. Shape C would probably be the second choice because at least the public can not get very near the furthest areas. Shape B would seem to be the worst as there is no-where to avoid the close gaze of observers.

As the reader will no doubt have already concluded, the situation described above for a human prisoner is precisely the environment which we give to most pheasants in captivity.

So why do we continue to construct rectangular aviaries for our captive pheasants where they frequently can be seen walking endlessly up and down the perimeter wire?

There are probably two main reasons for constructing rectangular aviaries. Firstly, it is cheaper and easier to construct such an aviary, particularly where groups of aviaries will be joined together. Secondly, most pheasant aviaries have been constructed in this manner for hundreds of years.

But should a historic reason really guide present day aviary construction when we know so much more about the needs of the birds. The hens of most pheasant species lay their eggs in a scrape on the ground in a corner of the aviary. In a rectangular aviary, there will almost certainly be at least one doorway for keeper access in one of the corners and, probably, a pop-hole entrance to adjoining aviaries. In a zoo or collection where the birds are on show to the public, hens will seldom wish to make their nest in the corners adjacent to where the public will view them. Often this arrangement actually gives hens only one or two possible corner nest sites. Is it any wonder that they sometimes drop eggs anywhere, or show little desire to nest naturally? On some occasions, hens despair and even lay eggs from a perch or eat them rather than incubate naturally.

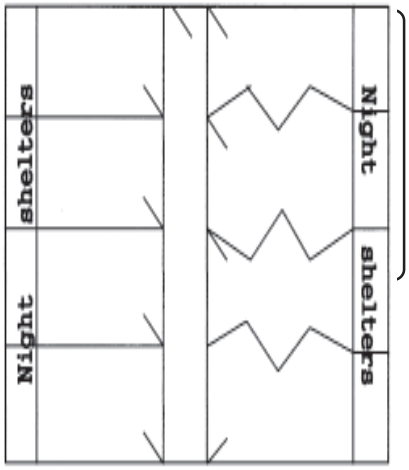
If we consider how we can offer an environment which allows the hen pheasant to feel more secure, surely she is far more likely to behave naturally and create her own secretive nest. In addition, our experience has been that birds which suffer from stress within their aviary do not live very long, whereas birds that accept their living conditions can often exceed 20 years, giving many years of reproductive life.

For a hen pheasant, probably the greatest source of stress is her mate, whom she did not choose and who will probably pester her incessantly, particularly during the breeding season. So if we can include secluded areas where the hen can get away from her mate, it is far more likely that she will feel sufficiently secure to reproduce successfully. Of course, designing and constructing an aviary along the lines of Shape D is impractical. The costs would be astronomical and it would be impossible to construct groups of aviaries.

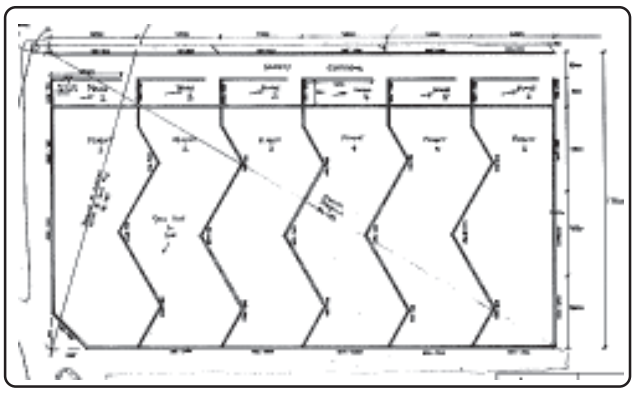
Some basic principles

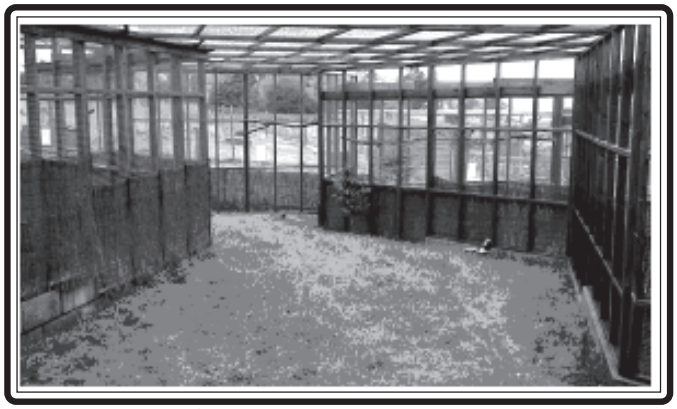
We should always provide the largest aviary possible within available costs. Pheasants in an aviary spend almost all of their waking time on the ground. They seldom fly, except in panic or to reach a roosting perch at night. Yet many pheasant aviaries spend much unnecessary money providing 4 or 5 metre high constructions where the birds will never use the top half of the aviary at all. We could actually construct most pheasant aviaries with a 2m high section for perching in the night shelter and the rest of the aviary need only be about 1 metre in height. However, the keeper would never be able to get in and keep it clean! Our experience has been that a 2m high aviary is perfectly adequate and the money saved by lowering the roof is much better spent in providing a larger ground area.

The most revolutionary development in some recently constructed aviaries is to abandon the long, straight internal aviary walls. In this diagram, compare the group of aviaries on the left with those on the right. Those on the left have traditional straight partition walls dividing each aviary. Those on the right have "zig-zag" walls which provide a much more interesting environment for the pheasants whilst maintaining the same internal area. If shrubs are then planted along the "zig-zag" wall in every corner, these offer additional nest sites as well as security for hens.



Aviaries with irregular walls
Large aviaries at Sparsholt College near Winchester in the UK were constructed with "zig-zag" walls which provide many corners for hens to nest and hide. Once shrubs have grown in the corners, these are ideal pheasant aviaries. All the pheasants in these aviaries regularly parent-rear their young successfully, and the aviaries have inspired several exciting new developments.



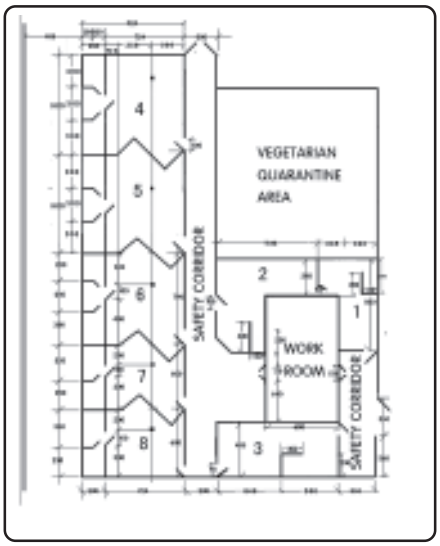


Western Tragopan aviaries at Sarahan in Himachal Pradesh, India
Sarahan pheasantry is the only place in the world where this very rare species has been bred. The pheasantry is located high in the Himalayan mountains at around 2,700m. These aviaries are in the process of construction. When completed they will provide a wonderful environment for the birds. They are an excellent example of co-operation between the Central Zoo Authority and the Wildlife Division of the Himachal Forest Department.

Cheer Pheasants in Himachal Pradesh
Also in Himachal Pradesh, the Wildlife Division of the Forest Department has recently completed aviaries for Cheer pheasants which, I believe, are the best in the world for offering an endangered pheasant species the opportunity to breed naturally. At Khuriun, near the Chail Wildlife Sanctuary, seven very large hexagonal aviaries have been constructed to replace some very poor earlier aviaries.

These aviaries, photographed while still under construction, are more than 300m2 each in area, the largest in the world for this species. The hexagonal shape of each aviary allows many possible corner nest sites for the hens. However, because the aviaries are very large, many natural nest sites have been provided within each aviary and the planting within the aviary is identical to that found in the Cheer pheasant's natural habitat. Within a short time of being introduced, each pair of Cheer pheasants soon reverted to very natural behaviour. With such a magnificent environment, it is not surprising that each pair has parent-reared young naturally.

A large polytunnel on the site provides year-round green food for the birds. The Chief Wildlife Warden has also installed 47 closed circuit cameras for the behaviour of the birds to be studied remotely by researchers. This, indeed, is the Rolls-Royce of aviaries and a great model for those who take conservation breeding seriously.



Beijing Zoo

At Beijing Zoo, after seeing the Sparsholt College aviaries, they decided to construct some new breeding aviaries for pheasants to provide better breeding opportunities. Beijing Zoo had already managed to breed the extremely rare Harman's eared pheasant and the Chinese Monal, but chicks had been reared using artificial incubation. Now they wished to try and breed some of their very rare pheasants more naturally.

A three year study of Blood Pheasants in the wild had given a great insight into the breeding behaviour of this species. Now they wished to try to breed this species which has proved notoriously difficult to keep alive in captivity.

Hume's bar-tailed pheasant in Mizoram

In Mizoram State in India, the Hume's pheasant is the State bird. It had never been reared successfully in captivity anywhere in the world until 1976. By constructing special aviaries designed specifically to encourage parent-rearing, the enthusiastic staff at Aizawl Zoo have managed to parent-rear this species for the first time.

Chengdu Zoo in Sichuan, China

In October 2007, WPA held its first International Conservation Breeding Workshop at Chengdu Zoo. At that time, the old pheasant aviaries offered little enrichment for the birds, with concrete bases and almost no plants. These were very easy to keep clean and allowed the public to see the birds easily, but provided few opportunities for the birds to exhibit natural behaviour.

After the Workshop, the staff at the zoo designed a new aviary for their pheasants which allowed the public to walk through their very large enclosure and see the birds in very natural conditions. This is now probably the largest aviary in the world for pheasants and is sufficiently big to have fully grown trees and a stream inside.

by: Dr John Corder, WPA Vice President, and an acknowledged expert on conservation breeding of Pheasants. He has been advising Himachal Forest Department for some years.

Sarahan Pheasantry: Western Tragopan Conservation Breeding

Sarahan Pheasantry is the only facility in India and also in the world for the Western Tragopan (*Tragopan melanocephalus*), an endangered species globally. The birds in Sarahan Pheasantry have been rescued in the wild when driven down by the winter snows. The pheasantry started in 1987, is situated in the Shimla district of Himachal Pradesh at around 7,000 ft altitude. It is located in the picturesque backdrop of the famous Bhimakali temple of Sarahan-Bushahr. Breeding started in 1991-92 when a rescued pair bred with one chick, the only record of WT breeding in captivity. The number of WTs in the pheasantry have grown to 18 individuals in March 2012: 9 males and 9 females.

The long-term aim in Himachal Pradesh is to establish a conservation breeding project for the Western Tragopan (and other Himalayan pheasant species) capable of providing a regular number of birds for re-introduction. Field research is already under way to determine the best sites for re-introductions. The Government of Himachal Pradesh has declared Western Tragopan as the State Bird.

Western Tragopan is a brightly plumaged bird, endemic to the northwest Himalaya, breeding in a narrow range between 2600m and 3600m in the upper temperate region. The name "Tragopan" originates from two Greek words - *Tragos* meaning 'goat' and *Pan,* a Greek deity. In Kullu district of Himachal Pradesh, the bird is called *Jujurana*, which means 'King of birds'. According to a local legend, God created this colourful pheasant with the help of the most beautiful feathers of each bird in the universe. The name relates the grandeur and beauty that it enjoys among the local villagers. It is known as *Pyara* in Kinnaur; *Jyazi* in Bushahr, and *Fulgar* in Chamba and Kangra districts. The Western Tragopan is the logo of the Great Himalayan National Park.

The world distribution of WT is limited to parts of Pakistan, Jammu & Kashmir and Himachal Pradesh. Its confirmed eastern limit of distribution is the Himachal-Uttarakhand boundary connecting Kinnaur (HP) and Uttarkashi (U.K.) districts. This pheasant has been well documented from the Great Himalayan National Park, and Rupi-Bhaba and Daranghati wildlife sanctuaries in Himachal Pradesh.

The latest reports of WT come from the surveys in the Sutlej and Beas catchments. The Thar jot site near Daranghati sanctuary is the first definite site for WT reported for over 30 years east of the Sutlej. The Thar jot area has *primeval* forest of Deodar *(Cedrus deodara), Fir (Abies pindrow),* and *Spruce (Picea smithiana)* with a thick understorey of *Ringal* bamboo *(Arundinaria falcata)*. This is a typical WT habitat between 2500 and 3300 m altitude which does not appear to tolerate biotic disturbances. Such type of WT habitat now exist in very interior forests of Himachal, most of which are part of the protected areas. The local communities also know WT as 'sing wala panchi' or the Horned Tragopan. A Western Tragopan makes a territorial nasal call wailing *khuwaah*, repeated 7-15 times during the breeding season.

The Western Tragopan is classified as 'vulnerable' because it is sparsely distributed, and the small population is declining and becoming increasingly fragmented in the face of continuing forest loss and degradation throughout its restricted distribution.

The Western Tragopan Stud Book documents the history of each WT rescued from the wild or bred within the Sarahan Pheasantry. The Table below shows the chronological details in the Sarahan Pheasantry along with pen numbers and dimensions. The construction of pheasantry for captive breeding in Sarahan-Bushahr was undertaken based on the recommendations of Keith Howman's book *Pheasants of the World: Their Breeding and Management* published in 1987. Accordingly, each WT gets about 400 sq ft space.

Year	Pen Nos.	Dimensions	Remarks
1987-88	8 and 9	3.20 x 8 m	Foundation of Sarahan Pheasantry; Construction of first block of two pens. One aviary also constructed.
-do-	Aviary	12 x 12m	
1988			Site development of Circular Pheasantry with a store in the centre.
1989-90	19 to 28, Circular Pheasantry	The radius of Circular Pheasantry is 4.40m. Each pen is 4.6m wide at the front and 1.8m wide at the back. A store is in the centre.	Construction of Circular Pheasantry completed in 1990 with 10 pens.
1990-91	1 to 5	3.10 x 8.35m	Construction of second block of five pens
1991-92	6 and 7	Pen No 6: 3.20 x 8m and Pen No. 7: 6.40 x 8m	These pens were constructed in the empty space before Pen Nos. 8 and 9.
1993-94	10 and 11	3.90 x 11.5m each	Constructed of Rai (Spruce) wood which rotted very quickly. So these pens are not in use at the moment.
1994-95	12, 13, 14	Pen 12 and 13 : 3.90 x 11.5m. Pen no 14: 7.80 x 11.50m.	In a row at the entrance of the Pheasantry.
2009	Aviary divided into four pens 15 to 18	Each pen of 3 x 12 m size	
2012	15 to 18	Each of 6x12m	Four pens merged into two pens.

by: Sanjeeva Pandey, Chief Conservator of Forests, H.P., Talland, Shimla

Assessment of distribution and population status of Grey Jungle Fowl and other Galliformes in some Protected Areas of the Southern Aravallis in Rajasthan

A project proposal titled "Assessment of distribution and population status of Grey Jungle Fowl and other Galliformes in some Protected Areas of the Southern Aravallis in Rajasthan" has been approved recently by the Ministry of Environment and Forests (MoEF), Government of India, for implementation by the Foundation for Ecological Security (FES) based at Anand in Gujarat. FES will be associating WPA-India as a project partner.

The close affinity of Galliformes to their habitat, especially forest floor, makes them very sensitive to any type of disturbance, potentially acting as indicators of direct human impact and environment quality in forest ecosystems and other habitats. At places these birds are locally extinct as the habitats they use are under constant and heavy pressure caused by several factors, such as development activities, mining, expansion for agriculture, frequent fires, overgrazing and over-exploitation of forest resources.

The available information on the subject, with special reference to the southern Aravallis is rather scanty and not based on proper scientific studies. Earlier, FES has carried out a broad biodiversity assessment in certain Protected Areas, such as Kumbhalgarh and Sitamata Wildlife Sanctuaries. Building on this preliminary work, FES intends to do a more in depth study under the new project sanctioned by the MoEF and also to develop an appropriate conservation action plan.

The main objectives of the project are:

- Study the status and map the distribution of the Grey Junglefowl, Red Spurfowl, Painted Francolin and Grey Francolin in selected Protected Areas of southern Aravalli Hills of Rajasthan through surveys.
- To evaluate the macro and micro habitat features of the above-mentioned four Galliformes in the study areas.
- To identify the threats faced by these Galliformes and their habitats.
- To assess the nesting and roosting related features of Grey Junglefowl and Red Spurfowl in the Protected Areas.
- To study the habitat use of Grey Junglefowl and Red Spurfowl in the Protected Areas.
- Identify the other potential habitats of the Galliformes within the selected Protected Areas through GIS based modeling.
- Draw immediate and longterm conservation strategies for the Galliformes of these Protected Areas.

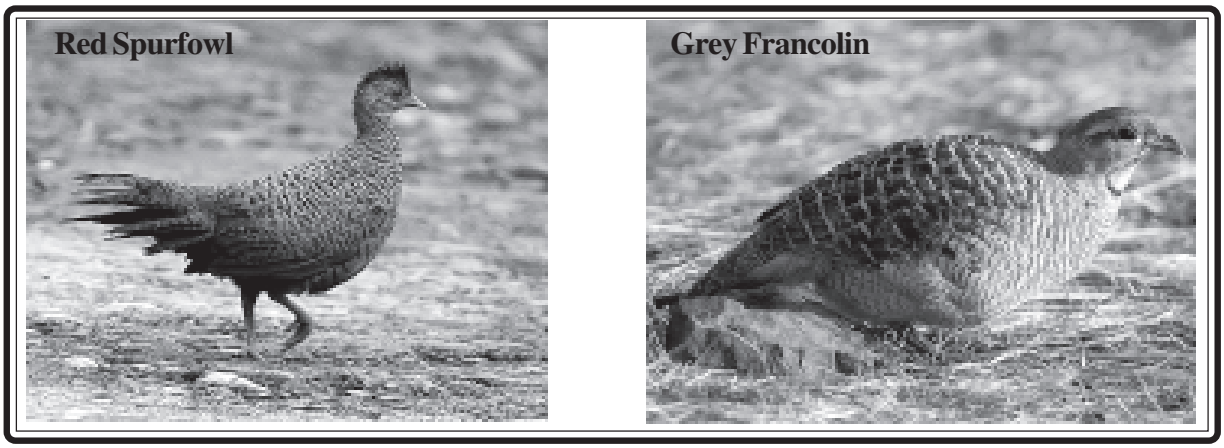


Photo credits: Atul Dhamankar

FES would be undertaking the project within a span of three years. The methodology would be a combination of several methods on population status assessment, delineating the distribution, identifying the appropriate and preferred habitats for different purpose and the type, intensity and magnitude of threats faced by Galliformes within the selected Protected Areas.

In the first year, land-use and vegetation map of the four Protected Areas and the adjoining forest areas will be prepared using Remote Sensing and GIS. Extensive surveys using perambulation and transects to record direct and indirect evidences, will be undertaken to collate data on the population, distribution, broad macro and micro habitat features, threats faced and identify key areas and other potential habitat through modeling for each species; specifically try and establish the exact northern most distribution limit of Grey Junglefowl, number of sites with Grey Junglefowl and Red Spurfowl in all the Protected Areas.

In the second year intensive ecological information like habitat use, nesting and threats will be collected for Grey Junglefowl and Red Spurfowl in any one of the high population or potential areas, in addition to surveying the identified key areas in each Protected Areas for recording the population and breeding status. All information would be used to derive hotspots or potential areas or critical habitat for these four species. A monitoring protocol for assessing the status of different species and their habitats will also be developed by FES in the region. The local communities and the forest staff and officials, who play an important role in the conservation of these species, would be involved from the planning stage for conserving the critical habitats of the Galliformes in all the Protected Areas of Southern Aravallis in Rajasthan.

by: Dinesh Reddy, Foudation for Ecological Security (FES)

Conservation of Peafowl in Aravalli Biodiversity Park, mining restoration site, Delhi

A short term study on peafowl was conducted in Aravalli Biodiversity Park, Vasant Vihar, Delhi with the objective of ascertaining the status of the species. The development of Aravalli Biodiversity Park (ABP) is a collaborative program visualized by Delhi Development Authority (DDA) and Centre for Environmental Management of Degraded Ecosystems, University of Delhi. It is being developed on 693 acres of land that was over mined and completely infected with *Prosopis juliflora* (Vilayati kikar) and has lost indigenous biodiversity. This program aims to create ideal settings that will be home to vanishing indigenous flora and fauna including peafowl and other galliformes. The major portion of the park area is rocky and devoid of soil and vegetation cover with a large number of depressions of varying depths and slopes.

Six different transects of varying length from 700 m to 1500 m were laid down. These transects were monitored twice a day; morning and evening from February to May 2011 in the study area. A total of 292 Indian Peafowl were sighted during the period and the overall Peafowl density was 1.01 individuals/ ha (95% CI = 00.45 – 2.28). The overall mean group size of peafowl was (1.25 ± 1.07). It varied from 1 to 6 individuals; mostly peafowl were sighted single and occasionally seen in groups, mostly 2 to 3 in number. Out of total 292 individuals, 155 were female and 127 were male. Four juveniles were

also sighted. No significant difference was found in morning and evening sightings as 150 and 142 individuals were sighted during morning and evening respectively.

Study showed that peafowl were found in clumped population in Biodiversity Park. During the study period three nests were also found in the park. Habitat plays an important role in the distribution of peafowl and it was largely found in high tree canopy cover, grass cover and low shrub cover in ABP. Being a huge pheasant, it faces problems during movement in thick shrub cover.

The area of ABP is surrounded by different land use units; residential colonies, Malls and Institutional establishments, thus making the area an island for peafowl. The restoration work in terms of establishment of native forest communities is in progress but in a phased manner. Peafowl were encountered more in restored areas as compared to unrestored areas. The population has increased manifold after the habitat restoration work in ABP but is still facing problems on account of stray dogs and the forced feeding habit by the locals. If it not checked peafowl may congregate at one place to feed and become victims of stray dogs. An awareness programme is required for walkers and residents in surrounding localities regarding conservation of peafowl and their habitat.

by: Vibhuti Singh, Guru Gobind Singh Indraprastha University, Delhi; Aisha Sultana & M. Shah Hussain, Biodiversity Parks Programme, CEMDE, University of Delhi.

HINDUSTAN TIMES, NEW DELHI
FRIDAY, JULY 13, 2012

Mystery shrouds peacock deaths at Gurgaon village

SHOCKING 10 peacocks found dead at Manesar; doctors blame heat stroke, locals not convinced

Deevakar Anand

MANESAR/GURGAON: A month after nearly a dozen peacocks were found dead under mysterious circumstances at Hasanpur village in the Aravalis, a fresh case of mass deaths has come to light.

The latest incident has been reported from Kasan village adjoining the Industrial Model Township (IMT) Manesar, around 20 kilometres from Gurgaon.

Although officials have denied any deaths, HT visited the area and found that at least 10 peacocks died in the last four days. More than 20 birds have been reported sick, with some in a very critical condition.

Villagers buried the carcasses of the dead birds, fearing they would be "eaten by dogs and cats". Peacocks come under Schedule I of the Wildlife Protection Act-1972 and can be buried only by wildlife officials after ascertaining the circumstances that led to their deaths.

MYSTERY DEATHS

14 peacocks found dead in Aravalis on Jun 10, 11 and 13

10 peacocks died in the last four days at Kasan near Manesar

THE REASON

- Government veterinary doctors attributed the deaths to heat stroke
- But villagers question the explanation as the weather has been pleasant for the past week
- They claim cell phone tower radiation may be the reason.

More than 20 peacocks have been reported sick in Kasan village, near IMT, Manesar. PARVEEN KUMAR/HT PHOTO

Villagers informed veterinary doctors about the deaths only on Wednesday evening.

Government veterinary doctors said heat stroke caused the deaths. But villagers are questioning the explanation as the weather has been pleasant because of rains in the past week.

Dr Neetu Gandhe, a surgeon at Manesar veterinary hospital who attended to the sick birds, said, "It appears that they are suffering from heat stroke and we have administered them antibiotics and vitamins."

The sick birds have been taken to the People for Animal (PFA)-run veterinary hospital at Sadhrana and wildlife SOS centre near Sultanpur lake.

Gurgaon district forest officer (wildlife) Kulvinder Singh ruled out any foul play. Though HT found buried carcasses of peacocks, Singh denied any bird was buried.

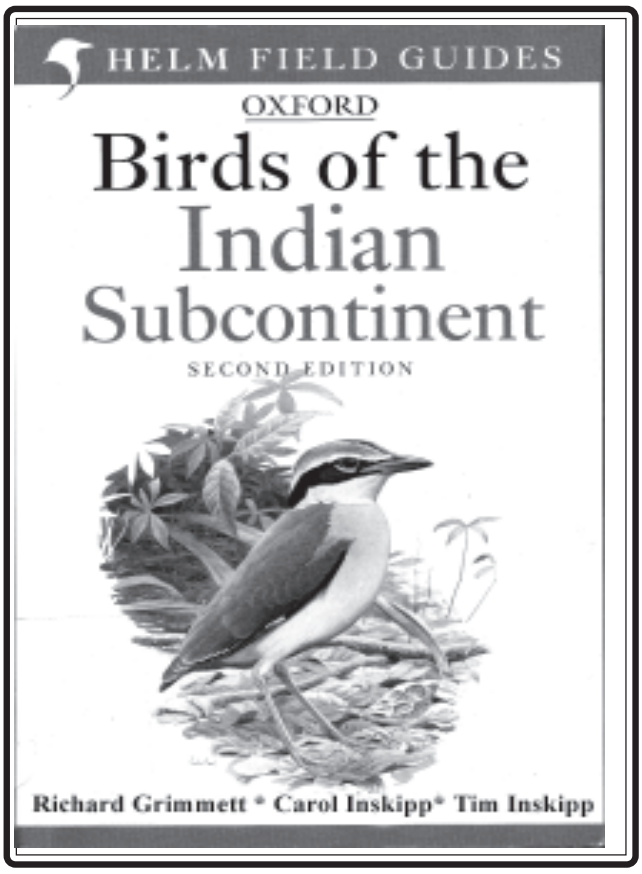
Locals say there are five cell phone towers barely a few metres from where the birds died and claim harmful radiation caused the deaths. Senior government veterinary doctors ruled out any such possibility.

Residents say this is the first time such an incident has been reported from the area. "The birds have been here for several years but we can't recall any mass mortality," said Rajbeer, a villager.

WPA-India has taken up the matter with the Haryana Govt. and Govt. of India (Min. of Env. & Forests).

BIRDS OF THE INDIAN SUBCONTINENT – Second Edition (2011)
By Richard Grimmett, Carol Inskipp & Tim Inskipp

The recent publication of the second edition of the ***Pocket Guide to the Birds of the Indian Subcontinent*** (1999) has not received the attention it deserves. The pocket guide had followed the more comprehensive handbook titled ***Birds of the Indian Subcontinent*** published in 1998 by the same authors. The latest publication is essentially a field guide which the authors claim to be "a compact version" of the above-mentioned handbook and certainly a much improved and more reader friendly version of the pocket guide. The plates, maps and texts have been extensively revised and several images have been redone or replaced.



A major improvement in the new field guide is that each plate carrying the illustrations and the corresponding text and distribution maps are together on opposite pages and each plate has no more than six or seven species. As a result, the plates do not look crowded and the images are bigger and better. Also, the number of plates has increased from 153 to 226. Further, the text for most species has been revised and relevant additions have been made. The distribution maps have also been revised as necessary. All this has made the volume bulkier (528 pages), but it is overall an outstanding piece of work and may well claim to be currently the best field guide carrying all essential information for identification of the birds of a fairly large region known for its richness in bird diversity.

Another noteworthy feature of the new publication is that it includes all species / sub-species recorded in the region (comprising the countries of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan and Maldives) up to the end of 2010 and making a total of 1375 forms, which is far more than about 1200 species covered by Salim Ali and S. Dillon Ripley in their monumental ***Handbook of the Birds of India and Pakistan*** published four decades back.

The species account starts with the ***Galliformes*** to which Plates 1 to 8 are devoted. In all, 46 species are mentioned. For some reason, two species reported, though rarely, from the border areas of Arunachal Pradesh in India have got omitted. These are the Tibetan Eared Pheasant (*Crossoptilon harmani*) and the Buff-throated Partridge (*Tetraophasis szechenyii*). Another point to make relates to the sub-species of Blood and Kalij Pheasants illustrated on Plates 6 and 7 which are not explained in the corresponding text. Brief mention of the distribution of these sub-species would certainly be helpful. Further, the sub-species of the Koklass Pheasant found in the Western Himalaya is not illustrated on Plate 6 and could perhaps be included in the next edition.

by: Samar Singh, former President, WPA-India.

Tales from the Wild

Unicorn Books (ISBN: 978-81-7806-239-6)

Tales from the Wild is a delightful collection of short stories essentially for the growing children. Penned by veteran naturalist Dr. Raza H. Tehsin and his daughter Arefa Tehsin, both based in Udaipur (Rajasthan), the prime objective of the dozen short stories contained in the book is to create interest and understanding about nature and wilderness through what the authors call a "nature edutainment" approach. In his Preface, the senior author explains: "This book is an attempt to reconnect children, particularly adolescents, with nature, through stories. Stories are all about animals, their life cycles, jungles, the delights and thrills of the wilds, conservation, and the fact that we do not have to preserve Nature, but respect it, for it is Nature which is preserving us."

Dr. Raza Tehsin took to the natural world from his childhood days. As he himself admits: "Climbing trees, bee stings, fishing, crushing ants and roaming the wilderness with a catapult made my childhood afternoons. In those initial years, through innocent plays and heartless acts, a bond was formed with nature, unbreakable for life. It pains my heart to see that today children have been alienated from the daily interaction with Nature, especially in the cities. The absence of understanding the natural world hampers an all-inclusive growth."

The book starts with an interesting tale titled "The Flying Lamps", which is actually about the enigmatic fireflies that can be experienced best in real wilderness and that too at night-time. People confined to urban places know nothing about these tiny creatures. The choice of this topic to start the book is indeed imaginative. Likewise, the following eleven tales relating to different animals or birds, viz. squirrels, vultures, waterhen, sambhar, bear, leopard, tiger, dhole, wild boar, otters, snakes and bats, are interesting as well as informative and also touch upon topical issues requiring conservation action, such as hunting and poaching, illegal trade in skins, loss of vultures, etc. The narrative is in simple language and made interesting with anecdotes. It is just the kind of book for children in the age group 8 to 15 years. Its black-and-white format makes the book affordable at Rs. 96/- only.

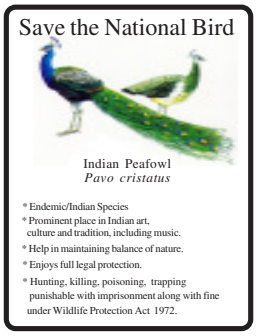
Dr. Raza Tehsin's articles have appeared in earlier issues of Mor.

by: Samar Singh, former President, WPA-India.

Resource Material - *available on request*

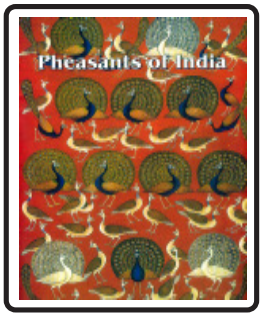
Posters

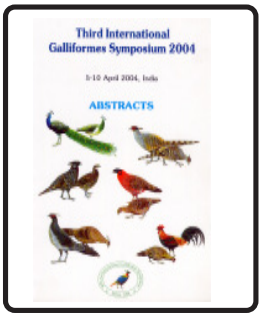
- Pheasants of India
- Pheasants of Arunachal Pradesh
- Pheasants of Himachal Pradesh
- Pheasants of Uttarakhand
- Pheasants of Assam
- Pheasants of J&K
- Pheasants of Sikkim
- Pheasants of Nagaland
- Pheasants of West Bengal
- National and State Birds
- Save the National Bird
- Himalayan Monal

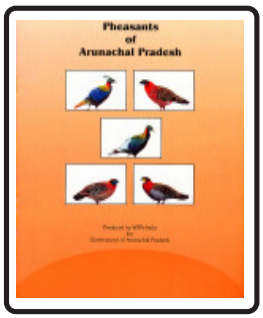


Booklets

- Pheasants of India
- Pheasants of Arunachal Pradesh
- Third International Galliformes
- Symposium Abstracts
- Pheasants of Himachal Pradesh







Mor *is the newsletter of WPA-India for private circulation. Its publication is being supported by the Duleep Matthai Nature Conservation Trust.*

Join WPA-India -- --only national organization wholly devoted to the cause of galliformes conservation in India. Contribute to the cause by joining in our efforts. Membership involves a nominal fee. For application form or any other purpose, please contact: phone nos. 8010752143 & 9891059970, email- wpaindia@gmail.com, address- 782, Sector – 17-A, Dwarka, New Delhi - 110078