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Newsletter of World Pheasant Association - India

Editorial:

In the meeting of the WPA-India Governing Board held on 26 March 2011, some changes were made in the office bearers. At the request of Shri Shekhar Singh, he was permitted to step down from being President of WPA-India. Dr. Nita Shah also wished to be released as Hon. General Secretary as she is no longer residing in Delhi.

Pending the appointment of a new President, the Vice President Shri D.K. Chetsingh was requested to look after the organization. Dr. M. Shah Hussain was appointed as the Hon. General Secretary and Ms. Vishaish Uppal as the Hon. Treasurer.

From religion and mythology to civilization and socio-culture, the Indian Peafowl has always occupied an important space in the lives of the Indian people and is aptly declared the '**National Bird**' of India. But today, Peafowl is facing a crisis of existence, specially in urban settings. WPA conducted a study on Peafowl in some parks of Delhi. Threats to peafowl at different levels have been noticed in all parks. Recommendations have been made for the better survival and management of the species.

Another study by WPA on the vulnerable Red-breasted Hill-Partridge in Singalila National Park and Buxa Tiger Reserve has mentioned threats and suggested action plans to save its habitat for long term survival of the species in both the reserves. Long term study on the Red-breasted Hill Partridge will provide gaps in ecological information for its long term conservation in its native range.

Meanwhile, the India International Centre in Delhi continues its rather unique record of providing safe nesting sites on its window ledges. This year during the monsoon season two separate birds nested there successfully.

Dr. M. Shah Hussain, Hon. General Secretary

A brief report on the ‘Study on Red-breasted Hill-Partridge in Singalila National Park and upper reaches of the Buxa Tiger Reserve in West Bengal’ by WPA-India

The Red-breasted Hill-Partridge (*Arborophila mandellii* Hume), one of the lesser known Galliform species found in the Eastern Himalayas and adjoining areas of South-East Tibet, has been categorized as ‘Vulnerable’ in the IUCN Red List. In 2009, a study was initiated by WPA-India, with support from Critical Ecosystem Partnership Fund & Ashoka Trust for Research in Ecology and the Environment, aimed at determining the status and distribution of the Red-breasted Hill-Partridge *Arborophila mandellii* in the Singalila National Park (SNP) located in Darjeeling district and upper reaches of the Buxa Tiger Reserve (BTR) located in Jalpaiguri district of West Bengal, India. Other objectives were to assess the key threats to the survival of the species and a gross assessment of the conservation status of its habitat. The study commenced from October 15, 2009 and despite socio-political disturbances in the Darjeeling hill district, the field work could be successfully completed by the end of March, 2011. Ten study trips have been conducted, five in each of the study areas. In all, 52 days were spent in the field. Total man-distance covered during the survey was 520 km (approx.).

Arborophila mandellii was sighted thrice during the study. On 21st November, 2009, in SNP at around 11.15 a.m.. Other direct sightings were made in the upper reaches of BTR twice, on March 10, 2011 at around 10.15 a.m. and on March 12, 2011 at 9.35 a.m.. However, a recognizable photograph of the target species could not be taken. Nevertheless, there is other evidence (as reflected in this study) to infer that the species exists in both SNP and BTR.

During the survey, a number of calls of Hill-Partridges could be recorded from different locations of both the study areas. None could be ascertained to be the call of *A. mandellii*. It could be conclusively gathered from the local people that Hill-Partridges are often trapped and consumed. The species has no market demand as a cage bird. The bird as a whole or any of its body parts does not possess any medicinal or otherwise social value.

It has been found that the most favorable habitat for Hill-Partridges in SNP extends from Gairibas downward to almost up to a line joining Maneybhanjang to Palmajua. The key threats at the habitat of SNP are – (i) Exploitation of forest for fodder & firewood. (ii) Grazing at certain places. (iii) Pollution & disturbance due to vehicular movement. (iv) Pollution due to garbage disposal by tourists including trekkers, local villagers and SSB staff. (v) Lack of machinery for proper disposal of garbage.

The habitat in Buxa Tiger Reserve is suitable for different species of Hill-Partridges along an area extending upward from Sadar Bazar up to Rupang Valley in the North and up to Pamsey Danda in the North East. The key threats to the habitat are: (i) Indiscriminate extraction of fire-wood and fodder, over grazing and trapping. (ii) Department’s inability to exercise adequate administrative control in remote areas. (iii) Pollution due to garbage disposal by tourists including trekkers, local villagers and SSB staff. (iv) Ill-developed poorly managed tourism. (v) Forest fire. (vi) Water scarcity.

The WPA-India team created wall-calendars, pocket calendars, back-gumming and front-gumming stickers depicting a representative diagram of the Red-breasted Hill-Partridge and all these

materials were distributed widely in both the study areas. School children were interacted with the aid of pictorial guides and stickers were given to them. A few low-cost binoculars and books on bird identification were distributed among school teachers, local guides and some interested youths from the study area.

To protect the existing habitat in both BTR and SNP the following actions were recommended: (i) To effectively reduce extraction and consumption of firewood and fodder. (ii) Control grazing. (iii) To have a clear account of the number of hotels/home-stays and to restrict the number of accommodation to its present number. (iv) To discourage and control disposal of non-biodegradable garbage within the forest area.

To minimize future habitat loss and to secure long term survival of the target species, the following actions were recommended: (i) Taking up and implementation of long term trans-border program to elevate the livelihood status and living quality of the local residents. (ii) To encourage alternate income generation of local villagers. (iii) To expand and boost revenue generating controlled eco-tourism, keeping stringent check on disposal of additional garbage and additional firewood consumption. (iv) Taking up large scale plantation program for fast-growing firewood producing plants. Joint Forest Management practices may help. (v) Developing a properly functioning income generating garbage disposal system involving local villagers. (vi) Large scale awareness generation programs to be taken up to induce school children in disposing garbage at proper dumping points and in learning to observe animals.

Some area specific actions were also recommended for SNP and BTR. For SNP it has been recommended : (i) To divert the vehicular traffic passing through National Park area via alternate routes through Nepal. (ii) To enforce the existing rule of cooking with LPG in tourist accommodations within the National Park area. (iii) Inclusion of as much reserved forest areas as possible contiguous to the National Park towards the eastern side of the National Park. (iv) Awareness generation campaign to be designed and taken up involving Satyr Tragopan, Blood Pheasant, Red-breasted Hill-Partridge and Red Panda as flagship species.

Similarly for BTR, it has been recommended : (i) To stop further encroachments, setting up of temporary cow sheds, expansion of residential area within forest land, etc. (ii) To stop infiltration of Bhutanese population with livestock and setting up of temporary cowsheds (*Gothh*) within forest areas. (iii) To step up vigil to control trapping and stray cases of illegal tree felling. (iv) To control people from burning undergrowth in summer months.

In addition to these suggested action plans, the following species-specific actions were also recommended : (i) To design and conduct an extensive survey on the present distribution, status and eco-behavior of *A. mandellii* in the entire Eastern Himalayas, through its known range of distribution. (ii) To make people aware that the species is 'Vulnerable' and also data deficient. (iii) If in some pocket the number of *A. mandellii* is found to be above comfortable limit and density, capturing and captive rearing of the species can be tried out. (iv) It should be placed to the proper authority that *A. mandellii* with all due justifications deserves to be included in Schedule I, Part III of the Indian Wildlife (Protection) Act, 1972.

Principal Investigator : Shri S S Saha, Co-Principal Investigators : Dr. A Chaudhury, Heerak Nandy, Dr. D C Pal

Field Study of Indian Peafowl (*Pavo cristatus*) in selected parks of Delhi

The Indian Peafowl *Pavo cristatus* is widely distributed in India but its status is unknown in public parks of Delhi. These parks have not only contributed to increase the green cover but also provide cultural, historical and natural heritage values to Delhi. Mostly Delhi parks are remains of the forest which supported a large peafowl population but recent developments have fragmented its habitats and do not provide ecological needs of the species now. If this continues, the entire population may become locally extinct from these parks. An initiative was taken to assess the status, ecology and possible threats to the Peafowl in Lodi park, Hauz Khas Deer park, Jahanpanah park and Nehru park during November 2008 to October 2009 to formulate suitable recommendations for their permanent survival. The study period was divided in two seasons (summer and winter). Vegetation was sampled to know the status of available suitable habitat used by peafowl for feeding, breeding and roosting purposes.

Total 263 hours were spent during the study period. Maximum peafowl were sighted in Hauz Khas, Deer park (2.73 ± 1.85) followed by Jahanpanah park (1.67 ± 1.43) and Lodi park (0.37 ± 0.66). No peafowl was sighted in Nehru park. Sightings of adult male and female differed significantly in all parks during summer and winter seasons. Juveniles were sighted during late summer season only.

There was fluctuation in the encounters of females and juveniles than the adult males, subadult males and subadult females in all parks. Sightings of females increased during summer but declined during the egg laying period. The proximity of parks provided dispersal opportunity to peafowl within and between seasons; peafowl dispersed between Khelgaon and Deer park whereas the isolated Lodi park and Jahanpanah park population remain static. Peafowl population was skewed towards males. The monthly age structure and sex ratio of parks suggest breeding dispersal in peafowl and it was definitely biased towards females. Unfortunately, due to lack of adequate nesting habitat and disturbance, no nest was sighted which is serious issue for the future existence of peafowl in these parks. Nehru park was totally avoided by peafowl because of lack of wild native shrubs and ground cover, and large human presence with their related activities.

Parks are regularly used for walks, jogging and other activities. Avenue plantation has been done on the boundaries of parks as a natural barrier and this provided favourable roosting sites to peafowl. *Azadiracta indica* and *Prosopis juliflora* were preferred trees over others because of their overall greater height and more availability. *Azadiracta indica* and *Dalbergia sissoo* also had greater height at first branch level. This might be offering greater protection from the ground predators, particularly from stray dogs and humans. Peafowl need to watch the approaching predators as safety measure due to their big size and these parks do not have understory thick foliage except at some places in Jahanpanah Park. Peafowl being tolerant to human prefer a transition zone between human and natural settings. The parks of Delhi can be compared with the ecotone habitats of peafowl; consequently the peafowl tend to use the optimum trees of the park.

Conservation management and recommendations: The Delhi parks pose disturbance in terms of human presence and their related activities for peafowl survival. Portions of parks areas

should be left free from human presence and developed as peafowl habitat so that the peafowl can roam and feed freely. Wild native shrubs should be planted to provide nesting sites, wild food, shelter as well as escape to the peafowl. Similar habitat condition can be developed in Nehru park also; a little portion should be left as a peafowl corner and a few peafowl can also be released here.

Although peafowl preferred *Prosopis juliflora* (a tree weed) for roosting in the Deer and Jahanpanah Parks due to its dominance over other tree species but its future propagation should be restricted through planting native vegetation to enrich native biodiversity and habitats for peafowl long term survival. The availability of clean water will ensure permanent presence of peafowl near water sources during the dry months.

Park managers should use organic manure such as cow dung and vermicompost instead of chemical fertilizers and pesticides that mostly kill insects and limit peafowl food supply. The broken boundary wall of parks should be repaired to keep away the stray dogs. Personal observation revealed that dogs have detrimental effect on peafowl's nesting and roaming behaviour. People should not be allowed to feed peafowl to avoid infections and competition with other urban birds. Awareness should be spread on a large scale by putting hoardings and posters to promote the conservation of our National Bird. They should also include the information on legal action against the person selling peafowl products.

Dr. M. Shah Hussain, Principal Investigator

Assessment of distribution and population status of Grey Jungle Fowl (*Gallus sonneratii*) in the Protected Areas of the Southern Aravallis in Udaipur, Rajasthan : implications for conservation action.

This short write up discusses the progress of work on the Grey Junglefowl (GJF) (*Gallus sonneratii*) that is being carried out by Foundation for Ecological Security (FES). The project is now into its 19th month. This study being done in the Kumbhalgarh (KWLS), Sitamata (SWLS) and Jaisamand (JWLS) wildlife sanctuaries in the Aravallis of Udaipur, Rajasthan is mainly to estimate its population and to understand its ecology, which would help in its conservation. In this estimate, only the progress of study in KWLS and SWLS are detailed.

This study is going on for the past 18 months (April 2010 – September 2011), in which initially the vegetation type of the study sites was determined using GIS. The ground truthing of the vegetation map is being done, while carrying out the habitat use and population studies. Some of the highlights from the study on habitat use and population in KWLS & SWLS are discussed as part of the progress of this study.

In KWLS, the broad vegetation types identified are dense dry deciduous (DDDF), water bodies (WB), and sparse dry deciduous (SDDF) and grassland / barren lands (GL/BL), both of which includes tropical thorn forest (TTF) and *Anogeissus pendula* Thorn mixed Forest (PTMF). In SWLS Among the forests, DDDF was dominant followed by SDDF, the bamboo mixed forest (BMF),

which was only next to GL/BL. The field surveys are presently being done in KWLS and SWLS, where information on the population (Age, sex, group size and composition), is being collected. In total 85 and 24 sightings were recorded from KWLS and SWLS respectively.

The total population of GJF observed in KWLS till date was 376. Among these 142 were adult males, 143 adult females, 31 sub-adult males, 36 sub-adult females, 11 juvenile males and 13 juvenile females. No chicks were observed during this period. However, the birds were involved in breeding activities between March and June. We could not record any nest or chicks during these months. This is because we could not see the birds in the areas where they were seen in other months. They probably made their nests in the denser parts as fire had wiped out the entire part of the Thandieri to Aaret area where many sightings and birds were recorded. But in the last two months we were able to record the juveniles, which show that the birds have nested. Based on the number of birds recorded the overall estimated encounter rate of GJF was 5.9/km and mean group size of 4.5.

In Sitamata, the birds were recorded in certain patches only and there are comparatively less GJFs in this PA than in KWLS. Totally 58 birds were recorded of which 35 were adult males, six adult females, 12 sub-adult males and five sub-adult females. No juvenile males, juvenile females and chicks were encountered in this PA. The surveys resulted in an encounter rate of 1.7/km and a mean group size of 2.4. Since the total number of sightings were less the seasonal variation in the population was not derived.

The mean group size of birds was more in Moist & Dry Deciduous Mixed Forest (MDDMF) (5.1), followed by MDF (4.0) The encounter rate was comparatively more in DDF (5.1/km) followed by MDDMF (4.8/km) and lowest in TMDDF (1.3/km). Based on encounter rate it is evident that more birds were seen DDF and MDDMF.

Status of Grey Junglefowl in different habitats showed that ecotone areas had the maximum number of sightings as well as relative abundance, followed by dry deciduous forest (DDF). Generally ecotone areas have a mixture of micro-habitat with dense shrub layer which acts as an escape cover for this pheasant species.

Sitamata WLS, which lies at the inter-junction of Aravallis, Vindhya and Malwa plateau, revealed that in this survey, sightings of this species were low in moist deciduous forest (MDF) but abundance was high in this forest type. Therefore presence of this pheasant in moist deciduous forest (MDF) can be attributed to good shrub layer in riverine forests.

FUTURE PLANS

However, data on the vegetation aspects, such as tree cover, shrub cover, ground (grass and herb) cover, leaf litter, aspect, slope and threats were neither collected, nor are these discussed as part of this report. The main reason was less number of data sets for certain parameters. The reason for not discussing the similar information of SWLS is because of insufficient data, or sightings. In the coming months more information would be collected on all these aspects including the breeding in all the three PAs.

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¹Red Spurfowl (*Galloperdix spadicea caurina*)

On 29th May 1982, I witnessed an interesting behaviour of Spurfowl. In Bhomat, a hilly tract west of Udaipur, there is a place called Kiary covered by dry deciduous miscellaneous forest. I entered a narrow ravine strewn with boulders and scrub jungle looking for Grey Jungle Fowl (*Gallus Sonneratii*). When negotiating a bend, I startled a family of Spurfowl in front of me near a fair sized boulder.

The cock started circling the boulder chuckling and gave a spectacular display of its feathers while the hen with its five chicks started climbing the steep slope to my left, taking advantage of every bit of cover. The chicks were very small and the side of the ravine was quite steep so the progress of the hen was very slow. I changed my direction and edged forward so as to reduce the distance between me and the boulder and the hen as well. The cock increased its pace. It circled the boulder thirteen times and on its last two rounds it passed within a few feet of me. Meanwhile the hen and the chicks reached a dense patch of scrub and were hidden from my view. The cock, when it was on the other side of the boulder, flew away and joined its family.

To save its progeny, the cock had diverted the attention of the intruder circling around the boulder while the hen led the chicks to safety. In these birds, devotion of the cock towards its offspring is very great and it took considerable risk to protect them.

²Grey Jungle Fowl (*Gallus sonneratii*) and Jungle Cat (*Felis chaus*)

Ladan lies in a hilly tract about 125 km west of Udaipur in Rajasthan. On 2 June 1988, at about 0830 hrs we were crossing a ravine in Ladan forests when we came across a group of four Grey Jungle Fowls, consisting of a cock and three hens, feeding about 90 m away. Taking advantage of the bushes between the bunds and us, we reduced this distance to about 55 m without disturbing them.

The birds were feeding, gradually moving away from us. Suddenly they stopped feeding and looked intently towards a bush about 20 m away from them on a slightly raised ground. The cock, which was in the rear, advanced and stopped just ahead of the group. We scanned the area with binoculars and saw a jungle cat crouching in the bush. Its entire body except head was concealed by a low bush and it was slowly moving its head in clockwise direction. In doing so it was also stirring some of the leaves of the bush. The cat was not visible and the birds were unable to distinguish the head of the cat because it was constantly moving it on purpose, half hidden in the leaves. The cock became curious and advanced a few steps towards the bush; the other birds followed suit. In this fashion the birds moved slowly and reached within 4-5 m of the bush. The cat stopped its head movement and darted towards them. Before the birds realized the danger it had landed on one of the hens. The other birds scattered and flew away in different directions. Within seconds the cat disappeared into the bushes with its prey. The curiosity of the birds to explore the phenomenon ended in a death trap.

1. Published in Journal of Bombay Natural History Society: Tehsin, R. H. (1986) Red Spur-fowl (*Galloperdix spadicea caurina*). J. Bom. Nat. Hist. Soc. 83(3): 663

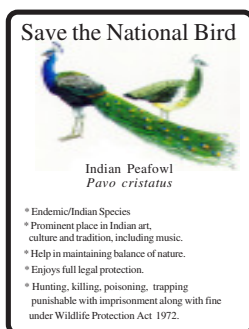
2. Published in Journal of Bombay Natural History Society: Tehsin, R. H & Tehsin F. (1990) Grey Jungle Fowl (*Gallus sonneratii*) & Jungle Cat (*Felis chaus*). J. Bom. Nat. Hist. Soc. 87(1): 144

Dr. Raza H. Tehsin based in Udaipur (Rajasthan) is a veteran naturalist and wildlife expert.

Resource Material - available on request

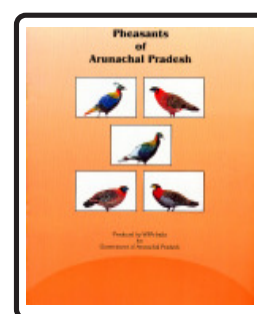
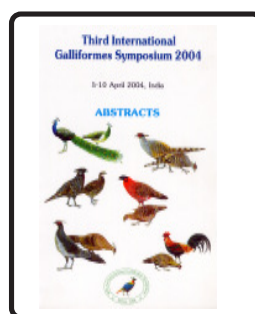
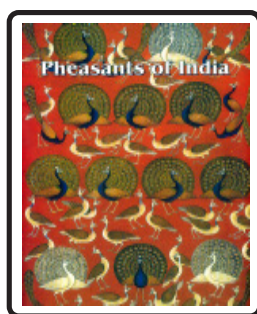
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