WORLD PHEASANT ASSOCIATION INDIA

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Newsletter of World Pheasant Association - India

Editorial:

Mrs. Indira Gandhi, in a collection of her writings and speeches about the environment, titled *Safeguarding Environment,* says: "I remember Edward Thompson, a British writer and a good friend of India, once telling Gandhiji that wildlife was fast disappearing. Remarked the Mahatma: "It is decreasing in the jungles but it is increasing in the towns".

Gandhiji was obviously referring to the more dangerous, human variety of wildlife. Sadly, the benign, furred and feathered variety is also under grave threat in and around towns and cities. The main reason, of course, is the loss of habitat. In Delhi, the Commonwealth Games have taken their toll. Large parts of the Yamuna floodplains have been colonised to build the "games village". Flyovers, metro, widening of roads and the building of sports complexes has meant that a large number of trees have had to be cut.

There are many other critical green areas in Delhi that are facing pressures. The most important, of course, is the ridge, which is an extension of the Aravalli range. In the early 1990s the Lovraj Committee was set up by the Delhi Government to recommend measures for the protection of the Delhi ridge. Though many measures were recommended and seemingly accepted by the government, there was almost no action on the recommendations and the ridge continues to be eroded and degraded at an increasing rate.

Another important green area having wildlife including some galliformes, is the campus forest of the Jawaharlal Nehru University. About fifteen years back a concerted effort was made by some JNU professors to have the area protected under the forest law. Unfortunately, the university authorities got cold feet and the proposal was withdrawn. As a result, the forests in the campus continue to be cut down not only to accommodate university buildings but also offices and residences of other institutions.

It is not just the green areas of Delhi which are under threat. The proposed airport at Navi Mumbai threatens wetlands and rich animal and bird habitat. The special economic zones in Mumbai and elsewhere will inevitably convert ecologically productive areas into concrete wastelands.

Therefore, in all this gloom it is a happy thought that the WPA-India study of the Peafowl in the President's Estate in New Delhi finds that their number has not declined (see page 2 for details). Perhaps it is time to persuade the President of India to have the wilderness area in the President's Estate declared a protected area, perhaps a national park, like the Guindy National Park in Chennai, which is an extension of the Raj Bhawan. Only this would help ensure that future occupants and administrators of the estate do not allow the wilderness areas, and their feathered and furred inhabitants, go the way of the rest of the city.

Shekhar Singh, President, WPA-India

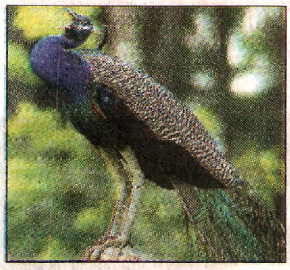
THE TIMES OF INDIA, NEW DELHI
MONDAY, JULY 26, 2010

President's Estate peacock count remains static at 104

TIMES NEWS NETWORK

New Delhi: Rashtrapati Bhavan is home not just to the President of India but also to large numbers of the national bird — the peacock. And even though its numbers here have not declined over the past few years, experts say that major efforts are required to ensure the species is protected and that its population grows.

In a study that was carried out to determine the number of peafowl in the President's Estate and the threats that they were facing, the World Pheasant Association-India found that the 330 acres of the residential complex had a peafowl population of roughly 104 with an average of .78 per hectare. "The Bombay Natural History Society carried out a bird census in the President's Estate in 2002-03 when 91 species were found. Peafowls were most with around 100 individuals. However, their numbers don't seem to have changed. While population has not declined, protection is required to see a growth in their numbers. There are some disturbances that are jeopardising nesting. Two abandoned nests were found and juveniles were few. If the recommendations given in the report are implemented, then Rashtrapati Bhavan can support double the present number," said the report.



NESTING ACTIVITY DISRUPTED

The study was carried out between December 2008 and November 2009 to assess population and status of the peafowl, its habitat and capacity of Rashtrapati Bhavan to support their numbers, an appropriate ecological system, its behavioural aspect and any potential threat. Based on the findings, the organization gave a list of recommendations on protection and conservation of the species.

The study found that the peafowl were not distributed equally in the Estate, the largest numbers being found in Dalli Khana and the Ridge area. "The two areas have a diversified habitat with a large number of plants and insects that provided the omnivorous birds with sufficient food. Juveniles and sub-adults were also spotted that proved that they had a good breeding habitat," said the report.

The recommendations included an immediate restoration of the green ground cover at Dalli Khana and at the Ridge. Sources said that the ground cover at these locations had been quite high in 2009, but was subsequently cleared.

The President of India releasing the WPA-India report. Present on stage are Smt. Sheela Dixit, Chief Minister Delhi, Shri Jaipal Reddy, Minister for Urban Development and Shri D.K. Chetsingh, Vice President, WPA-India. The field study was sponsored by the President's Secretariat and carried out for WPA-India by Dr. M. Shah Hussain as Chief Investigator.

Partridges, Quails and Francolins in India: Conservation in a Centre of Biodiversity

by John P. Carroll, Co-Chair, Partridge, Quail and Francolin Specialist Group, Warnell School of Forestry & Natural Resources, University of Georgia, Athens, GA 30602 USA.

Among the Galliformes, partridges, quails, francolins and snowcocks are an eclectic group that encompass a diversity of systematic relationships. These species range from lowland tropical forest to the highest elevations in the Himalaya. This wide range is also reflected in the diversity of habits and habitats from rare endemic specialists to generalists found over a wide swath of Asia. It also includes one species, the Himalayan Quail *(Ophrysia superciliosa)*, which has not been officially reported since the 1850s, but enough anecdotal reports have kept it from being declared officially extinct.

India has 27 species of partridges, quail and francolins. The unique location as a crossroads of Asia has resulted in India containing a diversity of species which have centers of distribution in either eastern Asia, or western Asia and Africa. Of the species found here, two species - the Common Quail *(Coturnix coturnix)* and Japanese Quail *(Coturnix japonica)* - are migratory, and the latter is only a sparse winter visitor. Two genera contain the largest number of species in India, Arborophila, or the hill-partridges, and Francolinus, the francolins. Two species of the closely related Spurfowl are also found here. Arborophila species are centered on SE Asia and India represents the westward extension of the genus. Conversely, the francolins are centered on Africa and India contains most of the species found at the eastern extent of the genus. There are some mountain specialist genera including the Tetraogallus, for which 2 of the 8 species are found here. In India, both species are generally found>3,500m and up to 6,000m making the snowcocks among the highest elevation birds in the world. The monotypic Snow Partridge *(Lerwa lerwa)* is another high elevation Himalaya specialist, again found>3,500m.

In conserving the partridges, quails and francolins, Indian biologists and conservationists are making enormous strides forward. Over the last 15 years we have seen a diversification of conservation research encompassing some of the more obscure species – this trend needs to continue. Although research on both Arborophila and Francolinus continues to increase, human pressures at moderate and lower elevations and ecosystems that these species inhabit also continues to increase. In particular, monitoring and conservation work on the lowland specialist Swamp Francolin *(Francolinus gularis)*, must be a priority. The Chestnut-breasted Hill Partridge* *(Arborophila mandellii)* also deserves more attention. The Manipur Bush Quail* *(Perdicula manipurensis)* continues to be poorly studied, and its grassland habitats are threatened. The key species is the Himlayan Quail. There is no doubt that additional resources and expeditions to potential localities are necessary to verify the final status of this species. If it proves to be extant, then conservation efforts must be put into place.

There are a couple of important ideas that are critical to the future of Galliformes and conservation. The first is that we must upgrade the quality of our research. This is not just an issue in India, but globally much conservation research could be done better, more efficiently, and create a wiser use of limited conservation money. Secondly, we have seen many of the forest partridge, quail and francolin species of India decline in numbers and distribution as a result of forest destruction and agricultural development. Conservation research and management has been initiated and warranted for these species. However, even though many of the grassland associated species have traditionally been more adapted to human impacts on their ecosystems, and often do well in agricultural areas, we cannot overlook the rapidly changing dynamics of global agriculture. The low impact farming practiced in many parts of Asia is being replaced by modern industrial farming. As has been seen in parts of Europe and North America, this potentially has a significant negative impact on those species that have been thought to be safe. We ignore signs for some of these species at our peril

Source: Galliformes of India - ENVIS Publication by Wildlife Institute of India.

**WPA-India has undertaken field studies for both these birds.*

Partridges, Quails, Francolins and Snowcocks of India

S. No.	COMMON NAME	SCIENTIFIC NAME
1	Snow Partridge	*Lerwa lerwa*
2	Tibetan Snowcock	*Tetraogallus tibetanus*
3	Himalayan Snowcock	*Tetraogallus himalayensis*
4	Buff-throated Partridge	*Tetraophasis szechenyii*
5	Chukar	*Alectoris chukar*
6	Black Francolin	*Francolinus francolinus*
7	Painted Francolin	*Francolinus pictus*
8	Chinese Francolin	*Francolinus pintadeanus*
9	Grey Francolin	*Francolinus pondicerianus*
10	Swamp Francolin	*Francolinus gularis*
11	Tibetan Partridge	*Perdix hodgsoniae*
12	Common Quail	*Coturnix coturnix*
13	Japanese Quail	*Coturnix japonica*
14	Rain Quail	*Coturnix coromandelica*
15	Blue-breasted Quail	*Coturnix chinensis*
16	Jungle Bush Quail	*Perdicula asiatica*
17	Rock Bush Quail	*Perdicula argoondah*
18	Painted Bush Quail	*Perdicula erythrorhyncha*
19	Manipur Bush Quail	*Perdicula manipurensis*
20	Hill Partridge	*Arborophila torqueola*
21	Rufous-throated Partridge	*Arborophila rufogularis*
22	White-cheeked Hill Partridge	*Arborophila atrogularis*
23	Chestnut-breasted Hill Partridge	*Arborophila mandellii*
24	Mountain Bamboo Partridge	*Bambusicola fytchii*
25	Red Spurfowl	*Galloperdix spadicea*
26	Painted Spurfowl	*Galloperdix lunulata*
27	Himalayan Quail	*Ophrysia superciliosa*

Techniques for Monitoring Galliformes in India

by:
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Introduction: Galliformes form an important component of the wildlife diversity in India and are well represented by Pheasants, Partridges, Quails, Francolins, Snowcocks and Megapodes. They occur in a wide variety of habitats ranging from the hot and arid deserts of western India to the cold and wet high altitude forests in the Eastern Himalaya and northeast hills; and from the cold deserts in the north to the dry coastal plains in Peninsular India and the Islands. Many of the Galliformes are endangered or threatened due to poaching for meat/feathers, habitat degradation and habitat loss due to changing land use practices. They form a significant prey base for a variety of predators that includes large and small mammalian carnivores, raptors, and reptiles. They are good indicators of habitat quality as they depend substantially on ground layer vegetation for food and cover requirements, and water. The pheasants of India have been an integral part of humans for centuries as they are all recognized for their aesthetic, socio-cultural and religious values.

Long-term conservation of galliformes, pheasants in particular, is of high priority for many states. In order to conserve and manage any wildlife species, basic information on its distribution, population, habitat use and behaviour are crucial.

Estimating distribution, abundance and monitoring of galliformes in India has been a difficult task due to the following reasons: (i) some of the galliformes inhabit dense, rugged and remote high altitude regions or dense forests with thick undergrowth; (ii) most of the galliformes are shy and cannot be observed easily due to their skulking or flushing behaviour (iii) all of them have specific habitat preferences that vary seasonally; and (iv) some of them occur in very low densities in nature.

Nevertheless, monitoring of galliformes is crucial. To begin with, information on presence/absence needs to be collected. After establishment of this information, relative abundance and monitoring should be carried out. As galliformes are widely distributed throughout the country, simple techniques for monitoring should be used by the field staff of forest and wildlife departments, amateur bird watchers, and other civil society members. The following methods are proposed:-

Presence/Absence Mapping: Information on the presence/absence of a galliform species has to be recorded for a sampling unit of a given area Rodgers (1991). The forest and wildlife staff can record presence/absence of the different galliformes at the compartment or beat level in a Forest Range of a Reserved Forest or Protected Area (PA). In case of non availability of compartment based maps, the area can be divided into grids or into small units based on natural features and information on presence/absence recorded. Similarly, for areas that are outside the PA network or Forest Division, one can record presence/absence of species at village, panchayat, gramsabha, block, taluk and district level. Information on presence/absence in defence land areas, institutional campuses and other private lands can be gathered by dividing such areas into small sampling units or grids. Details such as the name and exact location of the sites/localities where presence/absence is being recorded should be maintained. The GPS location, altitude range and general forest or habitat types should also be recorded.

Confirmation of the presence of galliform species could be based on direct sighting or evidence such as feathers or calls and reliable secondary information based on published information, department records and interviews with local people. The status of each species compartment or grid has to be assessed and recorded. Qualitative assessment could be: absent, very rare, rare, common, fairly common, abundant, but one should define the categories. For example, rare = 1 or 2 individuals seen occasionally; common = 5 or 6 individuals seen in 1 or 2 days of field work; abundant = over 10 individuals seen in one day's field work. It would be important to give information on the extent of the area surveyed. The assessment of the status could be based on field surveys or through reliable secondary information (from local villages).

Encounter Rates: Encounter Rate (ER) is a simple index for abundance estimation and is expressed as under seen per unit effort. The unit effort could be time spent in intensively searching for animals in an area or it could be the distance traveled in an area intensively searching for animals. Number seen could be based on direct evidence (sightings) or indirect evidences such as calls, droppings and other signs such as digging signs for feeding. Gaston *et al.* (1981), Gaston & Garson (1992); Bibby *et al.* (1992), Sathyakumar *et al.* (1993), Ramesh *et al.* (1990), Ramesh (2003) Sathyakumar (2004, 2006), and Bhattacharya *et al.* (2007) have used ER for monitoring galliformes.

One could survey an area for galliformes by walking along existing roads, paths, trails, nullahs or along a predetermined bearing using a compass or GPS. Driving along roads is another way for surveying galliformes in an area. If the distance traveled is measured, then one can use that as effort (ER = number seen/km walked). In cases when distance traveled is not known, one could use the time spent in searching that area as effort (ER = number seen/time spent). For example, if a person walked 2 km and sighted 4 Grey Francolin, the ER = 4/2, i.e., 2 Grey Francolin/km walk. Similarly, if a person spent 2 hours in a forest area intensively searching for pheasants and sighted 1 Tragopan, then ER = 0.5 tragopan/hour search. Indirect evidences such as calls and droppings could also be used, but one should be very careful in identification of calls of different species and calls of different individuals of the same species. Similarly, care should be taken to identify droppings or other signs of a species. For example, 2 Black Francolin calls heard/km walk; 4 peafowl dropping/km walk.

Encounter Rates are good for monitoring the abundance of galliformes in an area, if done regularly (monthly/ seasonally/annually). Comparison of ER of a species in two similar habitats located in different areas could be made. Adequate number of walks per month or season is necessary for calculating mean ER and standard errors. This technique is applicable for most of the galliformes.

Line Transects: Line transect (Burnham et al. 1980) is a simple, easy to execute method that can help in obtaining density estimate for galliformes in area. In this method, one walks along a straight line and counts animals on both sides of the line. Line transect could be permanently marked and vegetation trimmed for the observer to walk easily and carefully look for animals. In case of temporary transects, the observer walks in a straight line using a compass on a predetermined bearing. At least 2 or 3 transects of length ranging between 1 and 3 km to be laid in each habitat/area and walked at least 2 or 3 times in a month during the early morning hours. For every sighting, species, number, age and sex (if possible), sighting angle and sighting distance are measured. This information will be useful in calculating the ER and density of pheasants in an area. This technique is best suited for pheasants such as Monal, Kalij, Red Junglefowl, Grey Junglefowl and the Indian Peafowl Sathyakumar *et al*. (1993), Sathyakumar (2004, 2006). Software such as Distance (Laake *et al.* 1993) could be used to analyse line transect data for obtaining ER and density estimate.

Call Counts: The abundance of some pheasants that have gregarious calling behaviour during breeding season can be estimated by using Call Count Techniques (Gaston 1980, Rodgers, 1988, Kaul 1989, Ramesh et al. 1999; Ramesh 2003). During breeding season (April-May), males call during early morning hours (predawn period) to attract females and also to challenge rival males in the vicinity. In this method, one or two observers placed at least 500m apart along a line in a pheasant habitat count calls during predawn. This is an index of the number of calling males in an area and the call ideal situation, every calling males in an area and the call count is expressed as number of calling males/station. In ideal situation, every calling male would have a female. But in some cases, a calling male may not have a female or a calling male may have a female with juveniles also. No call heard in an area does not necessarily mean that there are no birds in that area. One can playback a call in an area to get response from individuals in that area. Call count method is good for monitoring populations of calling males in an area over years. Additional information on the group sizes during the breeding seasons will help in understanding the population size in an area. This method is best suited for Tragopans, Koklass and Cheer Pheasants.

Source: Galliformes of India - ENVIS Publication by Wildlife Institute of India.

Assessment of distribution and population status of Grey Jungle Fowl (*Gallus sonneratii*) in the Protected Areas of the Southern Aravallis in Udaipur District, Rajasthan

by Justus Joshua, ***Foundation for Ecological Security, Anand, Gujarat.***

The Grey Junglefowl (GJF) (*Gallus sonneratii*) is endemic to India and confined to peninsular India. The species is protected under Schedule II of Wildlife Protection Act 1972. It occupies dense undergrowth in dry deciduous and moist deciduous forests in addition to dense scrub. Thus, the conservation of this species would provide safety to the other species, habitats and ecosystems in the region. The GJF population in southern Aravalli hills is isolated and forms the northernmost distribution limit for the species. It has not been studied or surveyed in detail to know its population status and distribution, habitat and the threats faced. It has also been reported that the existing information on the conservation status of GJF is insufficient for an assessment of its conservation status in India. This is important considering that information on population, habitat and threats faced are very crucial for the conservation of the species in one of the oldest hill ranges in the world. In order to fill this gap and conserve the GJF, the Foundation for Ecological Security (FES) with its own funds, has taken up a three years (36 months) study in the Kumbhalgarh (KWLS), Sitamata (SWLS), Jaisamand (JWLS) Wildlife Sanctuaries and in the Aravallis of Udaipur District of Rajasthan. The idea of undertaking this field study was initiated by WPA-India, which continues to be involved.

The main goal is to know the status, population, distribution, habitat features and threats faced by Grey Junglefowl in the above-mentioned study sites that would lead to proper conservation of these species in these PAs.

The study approach and methods involve preparation of the land use and vegetation map of the PAs and the adjoining forest areas using Remote Sensing and GIS. Rapid survey, using perambulation and transects to recorded direct and indirect evidences, will be done 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; number of sites with GJF in all the PAs. Further, intensive ecological information like habitat use, nesting and threats will be collected in any one of the high population or potential areas. All information would be used to derive hotspots or potential areas or critical habitats for these four species through GIS.

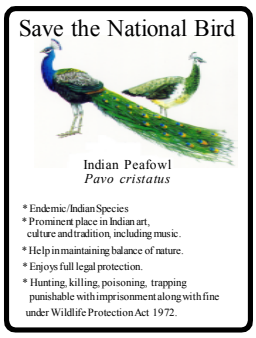
This study would aid in bringing out *Conservation Action Plan (CAP)* for GJF and the PAs, in addition to adjoining potential habitats, that would include Monitoring Protocol (BMP), Habitat Improvement and Restoration Plan (HIRP) and Connecting Corridor Development (CCD), where ever possible and necessary.

The land use maps of KWLS and SWLS have been already completed, while that of JWLS is in progress. The field surveys are presently being done in KWLS and SWLS, where information on the population (Age, sex, group size and composition), micro and macro habitat information for each sighting along with threats faced are being collected. The coordinates for each sighting are also being taken, which would later help in identifying the potential habitats and the critical populations.

Resource Material - *available on request*

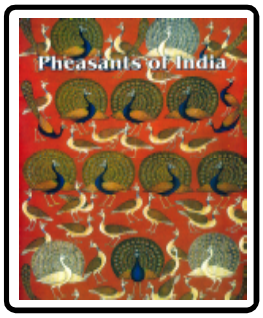
Posters

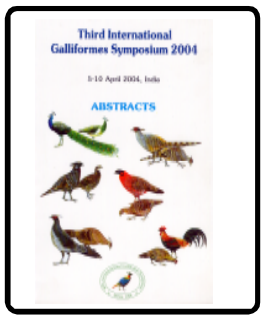
- Pheasants of India
- Pheasants of Arunachal Pradesh
- Pheasants of Himachal Pradesh
- Pheasants of Uttarakhand
- Pheasants of Assam
- Pheasants of J&K
- Pheasants of Sikkim
- Pheasants of Nagaland
- Pheasants of West Bengal
- National and State Birds
- Save the National Bird
- Himalayan Monal

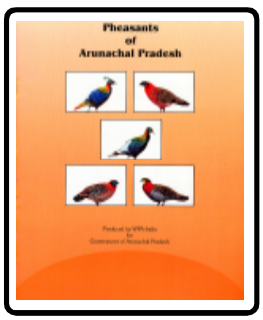


Booklets

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







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