

# Mor

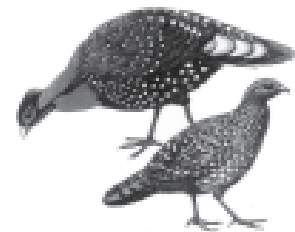
Newsletter of World Pheasant Association - India



**Indian Peafowl**  
*Pavo cristatus*  
**National Bird**  
&  
Odisha State Bird



**Himalayan Monal**  
*Lophophorus impejanus*  
Uttarakhand State Bird



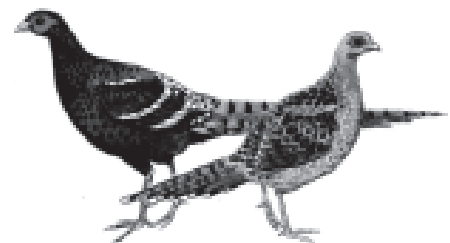
**Western Tragopan**  
*Tragopan melanocephalus*  
Himachal Pradesh State Bird



**Blood Pheasant**  
*Ithaginis cruentus*  
Sikkim State Bird



**Blyth's Tragopan**  
*Tragopan blythii*  
Nagaland State Bird



**Hume's Pheasant**  
*Syrnaticus humiae*  
Manipur and Mizoram  
State Bird

## *Pheasants as National & State Birds*

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## **Editorial**

*We witnessed a major devastation in Uttarakhand and Himachal Pradesh in the month of June 2013. These Himalayan states are so far the worst hit by the extreme rains that struck northern India in the wake of monsoons that set in early this year. According to satellite imageries, Uttarakhand received rain early this year. The monsoon reached the states almost two weeks in advance. These early rains coupled with other factors were responsible for the disaster. Rivers in the region have already flowed heavier in June than at other times of the year due to the seasonal melting of glaciers. When water falls on ice, it melts faster; and as it rained on the glaciers of the state, the massive runoff began to swell the rivers. But what about the other factors! Who is responsible for the unabated expansion of hydro power projects, construction of roads, hotels, guest houses to accommodate the heavy flow of tourists? Ultimately, the sufferer is the rich forest area and the occupants of these states. These areas are biodiversity-rich, especially in terms of pheasants. How long can we keep on passing the responsibilities on to one another?*

*Our Mor has reached its 19<sup>th</sup> edition which includes many interesting articles and informative notes. The article on Blyth's Tragopan in eastern Nagaland shows that the status of this bird is scanty in the region. Importantly, this edition carries an article on the impact of hydro power projects on pheasants in the Great Himalayan National Park. We have reproduced an article from JBNHS on the introduction of Grey Francolin in Andaman Islands. The Annual Review of WPA-India has also been given.*

*Let me say that projects are extremely important to the overall financial health of WPA-India. They are also a wonderful tool for helping to raise awareness for the conservation of pheasants which is an important mission we have accepted. So, join WPA India and if you have any thoughts regarding pheasants you would like to express, please share them with us.*

*I hope you enjoy this edition of Mor. Thank you for your continuing association with WPA-India. Let's take a pledge to reduce our (tourists') footprint on the eco-sensitive fragile zones.*

**Dr. M. Shah Hussain, Hon. General Secretary, WPA-India**

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### **The Hindu, 19 July 2013**

#### **23 Peafowl found dead in Rajasthan**

*JAIPUR: Twenty-three Peafowl were found at two different places in Rajasthan, police said on Tuesday. Carcasses of 17 Peafowl – five male and 12 female – were found in Nagarfort area in Tonk district on Monday, said Surendra, Station House Officer (SHO) of the Nagarfort police station. Six more peacocks were found dead in the forest area of Barwala village of Myakrana town on Monday, police said. Forensic experts of the forests department suspect that the peacocks died after consuming poisonous food grains. Samples of the food grains have been collected the SHO said. Cases under sections of the Wildlife (Protection) Act have been registered by the Forest Department, he said.*

*Officer on Special Duty (OSD) in the Wildlife Crime Control Bureau and environmentalist B.L. Jajju said this was an example of carelessness of the Forest and Police Departments. "We urge Chief Minister Ashok Gehlot to take cognisance of such wildlife cases and ensure a free and fair probe," Mr. Jajju said. - PTI*

### Annual General Body Meeting

The Annual General Body Meeting of WPA-India was held on 27 April 2013. In the meeting, the Annual Report and audited Annual Accounts for the years 2010-11 and 2011-12 were considered and adopted. Besides, the WPA-India Governing Board was reconstituted for the next three years as given below:-

<i>Shri Sharad Gaur</i>	–	<i>President</i>
<i>Col. Gautam Das</i>	–	<i>Vice President</i>
<i>Dr. M. Shah Hussain</i>	–	<i>Hon. General Secretary</i>
<i>Ms. Vishaish Uppal</i>	–	<i>Hon. Treasurer</i>
<i>Shri Samar Singh</i>	–	<i>Member</i>
<i>Shri D.K. Chetsingh</i>	–	<i>-do-</i>
<i>Dr. S. Sathyakumar</i>	–	<i>-do-</i>
<i>Shri Himanshu Malhotra</i>	–	<i>-do-</i>
<i>Dr. Parikshit Gautam</i>	–	<i>-do-</i>

### ANNUAL REVIEW - 2011-12

**Partnerships & Networking:** During the year, collaboration with partner institutions, viz. the Wildlife Institute of India, WWF-India, Bombay Natural History Society, Centre for Environment Education, Central Zoo Authority, National Zoological Park, Samrakshan Charitable Trust, Salim Ali Centre for Ornithology and Natural History (SACON) and others was continued.

**Membership:** At the end of the year, the membership status was as follows: Life Members (56), Institutional Members (8) and Annual Members (52). Efforts to enroll new members are being made.

**Newsletter:** During the year, issues of the newsletter *Mor* were brought out in July 2011 and January 2012. The July 2011 issue included articles on a study of the Red-breasted Hill-Partridge in Singalila National Park and upper reaches of Buxa Tiger Reserve in West Bengal and a field study of the Indian Peafowl in selected parks of Delhi, both projects undertaken by WPA-India. Another article was on an assessment of distribution and population status of the Grey Jungle Fowl (*Gallus sonneratii*) in the Protected Areas of the southern Aravallis in Udaipur, Rajasthan, a project taken up by the Foundation for Ecological Security (FES).

The January 2012 issue carried the Annual Review of WPA-India for 2010-11 and articles on the status and distribution of Galliformes in Khangchendzonga Biosphere Reserve in Sikkim, a study of the National Bird in the President's Estate, New Delhi, and conservation of the Red Junglefowl in India.

**Save the National Bird Campaign:** The campaign was continued during the year with. Cases of peafowl mortality are being reported and getting covered by the media. A study on the status of the Indian Peafowl in selected parks of Delhi and another study on the National Bird in the President's



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Estate were completed and Final Technical Reports were submitted to the Department of Environment, Government of NCT of Delhi, and the President's Secretariat.

**Field Projects:**

**Effect of pesticide use on the Blue Peafowl and Grey Francolin in Central India (Funded by the Ministry of Environment and Forests)** – The Final Technical Report was accepted by the Ministry of Environment and Forests, Govt. of India. The final instalment is awaited from MoEF.

**Mobilising Grassroots Action for the Conservation of Galliformes in the Gori River Basin, Uttarakhand (Funded by the Ministry of Environment and Forests)** – The Final Technical Report was accepted by the Ministry of Environment and Forests, Govt. of India and final instalment has been received by WPA-India.

**Field Study of Indian Peafowl in selected parks of Delhi (Funded by Delhi Government)** – The Final Technical Report was accepted by the Department of Environment and Forests, Government of NCT of Delhi and final instalment has been received by WPA-India.

**Study of the National Bird in the President's Estate (Funded by President's Secretariat)** - The Final Technical Report was accepted by the President's Secretariat and final instalment has been received by WPA-India.

**Survey of Manipur Bush-Quail in western Assam (Funded by the Ministry of Environment and Forests)** – The Final Technical Report was accepted by the Ministry of Environment and Forests, Govt. of India and final instalment has been received by WPA-India.

Study on the status, distribution, key threats & related conservation aspects of Red-breasted Hill-Partridge (*Arborophila mandellii* Hume) in West Bengal – The Final Technical Report was accepted by Critical Ecosystem Partnership Fund (CEPF) and final instalment has been received by WPA-India.

The new project proposals being pursued are:

- Study on the status, distribution and related conservation aspects of the Pheasants of western Arunachal districts (East Kameng, West Kameng and Tawang).
- Support to WPA-India's newsletter titled Mor.
- Assessment of distribution and population status of the Grey Jungle Fowl and other Galliformes in Protected Areas of the southern Aravallis in Rajasthan. The proposal has been submitted by Foundation for Ecological Security (FES) to the MoEF. A partnership role has been sought in this project for WPA-India.
- Himachal Pradesh Pheasant Conservation Project – The proposal is still pending with the State Government. Efforts are continuing to get the project approved.

The financial position of WPA India is causing concern. There is an urgent need to get new projects sanctioned to sustain the functioning of the organization. Members of the Governing Board have been requested to devote attention to this matter. In order to reduce the expenditure on the WPA-India office till new projects are sanctioned, the accommodation in Shahpur Jat, New Delhi was vacated in April 2011. The services of the office peon and part-time maid were also dispensed with from 30<sup>th</sup> April 2011.

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## Blyth's Tragopan in Eastern Nagaland: People's Perception

S. Ramesh Kumar, S. Bhupathy (Salim Ali Centre for Ornithology and Natural History), Vengota Nakro (Nagaland Empowerment of People through Economic Development (NEPED), P. Thirumalainathan, J. Paramanandham and Pranjit Sarma (Aaranyak, Guwahati, Assam).

A questionnaire survey was done in five eastern districts of Nagaland to collate information on Blyth's Tragopan *Tragopan blythii* (Jerdon 1870), the State Bird of Nagaland, during April 2009 to December 2010. Survey were conducted in 269 villages, and in each village 4-5 elderly persons (*Gaunburas*), and hunters were interviewed to collect information on the occurrence, status, ecology and people's perception on Blyth's Tragopan in their forests. An attempt was made to compare the indigenous ecological knowledge pertaining to this species with that reported in literature. Inhabitants of 83 of the 269 villages surveyed, reported the presence of Blyth's Tragopan in their forests: in 25% of the villages, this species was not uncommon and in 27% of the villages, tragopans have locally disappeared. Information on the ecology of this species provided by locals and that in literature was similar. The study revealed that most of the villagers are aware of the decline of biodiversity in their area. Several villagers have earmarked Community Conservation Areas (CCAs, which are community protected reserves) and banned hunting of wildlife, including Blyth's Tragopan. It was found that most of the CCAs require technical support with respect to wildlife conservation strategies and alternate livelihood options for the local people. This species appears to be common in a few localities in Kiphre district of Nagaland, and an in-depth ecological study is suggested, which would provide data required to develop long-term conservation plans for this species in the region.

Blyth's Tragopan *Tragopan blythii* (Jerdon 1870) is distributed in India, Bhutan, Myanmar, and parts of China: in India, it is restricted to the forested hill tracts of northeast India (BirdLife International 2008; Ghose *et al.* 2003). The estimated global population of this species varies from 2,500-10,000 birds, and its density may vary from 0.56 to 4.3 birds/sq. km. (BirdLife International 2008). Its estimated population in Nagaland is 400 (Zeliang 1980). It is reported that Blyth's Tragopan is declining owing to widespread forest degradation and hunting pressure in parts of its distributional range (Choudhury 2001; Islam and Rahmani 2004). Due to small, declining and scattered sub-population within a severely fragmented range and hunting pressure, this species is categorized as Vulnerable by IUCN (BirdLife International 2008). In India, it is accorded the highest legal protection subsequent to its listing in Schedule I of the Indian Wildlife (Protection) Act, 1972.

Salim Ali Centre for Ornithology and Natural History (SACON), Coimbatore, in association with Nagaland Empowerment of People through Economic Development (NEPED), Kohima, has been working in the eastern district of Nagaland since 2007. A major objective of this study was to strengthen the efforts of local communities in conserving natural resources, including wildlife. As part of the study we documented the indigenous knowledge on flora and fauna, data on occurrence, status, and people's perception of Blyth's Tragopan, the State bird of Nagaland. In the present paper, we attempt to compare the knowledge of locals pertaining to this species with that reported in literature.

**Study Area:** Northeast India, which is a part of the Indo-Myanmar faunal sub-region, is one of the 34 global biodiversity hotspots (Myers *et al.* 2000). Nagaland (25° 06' -27° 04' N; 93° 20'; 95° 15' E) is one of the north-eastern states of the Indian Union. The study was conducted in five eastern districts of the state, namely Phek, Tuensand, Mon, Kiphre, and Longleng. The entire area is hilly with elevation ranging between 194 and 3,842 m above msl, the highest peak being Saramati (3,842 m above msl) in Kiphre district. Monthly mean temperature of the area around from 16° C to 31° C and in a few locations it may drop to about 4° C during December and



January. Eastern Nagaland receives rains primarily during June-September and the average annual rainfall of the area range from 2,000 to 2,500 mm. The major indigenous tribes inhabiting the district are Chang, Sangtam, Khiamungan, Yimchunger, Sumi, Konyak, Pochuri, Chakhesang and Phom, and all of them are reported to be originally hunter gatherers Ganguli 1984; Joshi 2001; Sanyu 2008). *Jhum* or slash and burn cultivation is the most common agricultural practice found these districts.

**Field Methods:** A questionnaire survey was done in the village of the five districts of Nagaland from April 2009 to December 2010. As one of the major goals of the SACON-NEPED project was to encourage locals to establish community conservation area, surveys were restricted to villages with considerable forest cover, 269 villages of the 464 villages of the districts. About 4-5 elderly persons, *Gaunburas* and hunters were interviewed in each village, and information on the occurrence, status, ecology, and people’s perception of Blyth’s Tragopan inhabiting their forests was recorded. Interviews with villagers were conducted by a local resource person known as Faciliator of Community Conservation (FCC) in the presence of at least one of the authors of this paper. The FCCs are local village youths trained by SACON-NEPED in biodiversity conservation, and they played a crucial role in liaising with the villagers. In all, the services of 29 FCCs were utilized during this study. Photographs of Blyth’s Tragopan (male and female) were shown to villagers during the interview. Location (latitude-longitude) of most of the villages was recorded using GPS (12 Channel, Garmin). Based on the statements of the locals, population status of the species was categorized as common, fairly common, rare, and locally extinct. Sighting/calls 10+ times by a person in one year was considered as common, 5-10 as fairly common and <5 as rare, and the status categorization of the bird was done following consensus among persons interviewed in the village. Birds not seen/heard in an area by villagers for more than five years were considered as locally extinct. Information provided by people on Blyth’s Tragopan was compared with that available in literature such as Ali and Ripley (2001) and BirdLife International (2008).

**Results:** The presence of Blyth’s Tragopan was reported to occur in the recent past (namely, within 5-10 years) in 83 (31%) of 269 villages sampled (Table 1). This species is known in 14 local (dialect) names, and local names such as *Wihthiirang* (*Langa* dialect, Yimchunger tribe, Tuensang and Kiphere districts, 18 villages) and *Uhngang* (*Sangtam* dialect, Sangtam tribe, Tuensang district, 14 villages) are widely used.

The status and distribution of Blyth’s Tragopan in the five eastern districts of Nagaland is shown in Figure 1. Tuensang had the highest number of villages that reported this species: none of the 24 villages interviewed in Longleng district reported it. The tragopan was somewhat common in about 25% of villages, and in 22 (27%) villages it had disappeared (Fig. 2). Among 22 villages with no recent reports of tragopan., 21 were in Tuensang district (Table 1). In 13 villages, tragopan were reportedly common; of these. 10 were in Kiphere district.

Table 1: Status of Blyth's Tragopan in the eastern districts of Nagaland based on questionnaire survey

District	Villages surveyed	Positive response	Status			
			Extinct	Rare	Fairly Common	Common
Tuensang	75	35	21	7	7	0
Phek	59	21	1	18	0	2
Mon	73	12	0	11	0	1
Kiphere	38	15	0	5	0	10
Longleng	24	0	0	0	0	0
<b>Total</b>	<b>269</b>	<b>83</b>	<b>22</b>	<b>41</b>	<b>7</b>	<b>13</b>

In general, it appears that Blyth's Tragopan is rare in the eastern districts of Nagaland. A comparative account of published information on aspects of its ecology and that reported by the indigenous people of eastern Nagaland is provided in Table 2. This study revealed that Blyth's Tragopan is distributed in a wide range of elevation, i.e., 600-2,800 m above msl in the eastern districts of the state. Of the 83 villages with tragopan reports, 67 (80.8%) were located above >1,000 m above and msl. The highest number of villages with the report of this species was located >1,800 m above msl followed by 1,400-600 m above msl category (Fig. 3). All villages where the Blyth's Tragopan was reported common were found at elevations of 1,100-2,200 m above msl. Eighty out of eighty three villages which reported Blyth's Tragopan informed that this species inhabits primary forests. According to the local Nagas, these undisturbed primary evergreen have never been under *jhum* cultivation. In 33 locations, this species was observed in secondary forests, i.e., *jhum* lands left unattended for over 15 years.

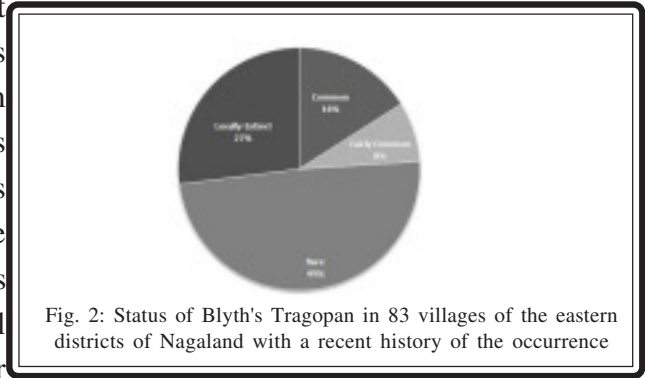


Fig. 2: Status of Blyth's Tragopan in 83 villages of the eastern districts of Nagaland with a recent history of the occurrence

Locals reported that the Blyth's Tragopan feed on many species of flower buds, berries, fruits, and seeds. People of 58 villages reported fruits as a major food of this species. 53 villages considered seeds and grains as its food, and inhabitants of 23 villages thought that the species also feeds on insects. People of 66 villages reported that tragopan breed during March-June. Seventeen villages reported that this species did not breed in their forests since nests were not located. People of four villages said that this species nests in forests above 2,000 m above msl and 12 villages reported that they breed in primary (evergreen) forests. People of 13 villages reported that it nests on the ground in tropical evergreen forests.

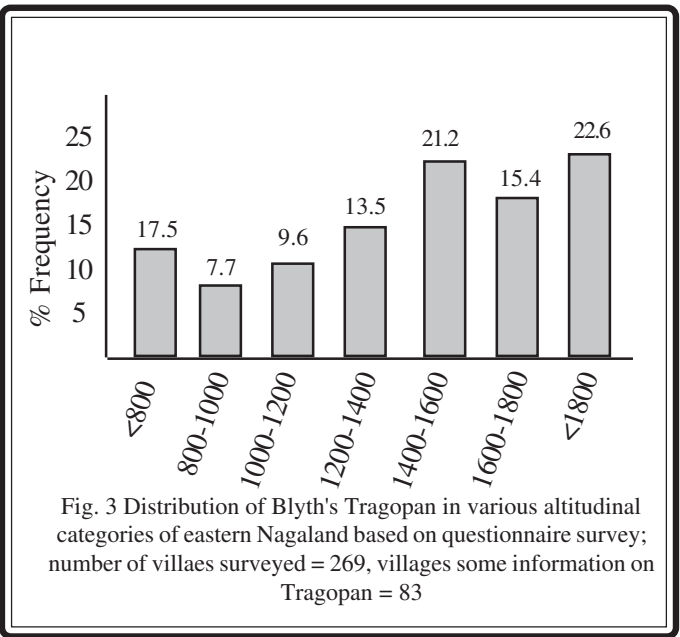


Fig. 3 Distribution of Blyth's Tragopan in various altitudinal categories of eastern Nagaland based on questionnaire survey; number of villages surveyed = 269, villages some information on Tragopan = 83

Inhabitants of all villages reported that the population of Blyth's Tragopan is declining due to over exploitation (hunting) and deforestation. They also believed that deforestation brings the bird to open habitats, which makes them victims of predators and hunters. Of the 83 villages, in 58 villages tragopan feathers were used for decorative display in houses as a sort of hunter's trophy. People of 73 villages reported that they hunted Blyth's Tragopan for food, using airguns (49 villages) and traditional methods, such as snares and catapult (28 villages). People of all the 83 sampled villages were aware of the decline of Blyth's Tragopan in their area. Among the 83 villages with some information on tragopans, 76 villages have declared about 250 Community Conservation Area (CCAs). CCA is a patch of forest owned and managed by a village. A village may have many CCAs. The size of these protected forest patches varies from a few hectares to about 10 sq. km. Self imposed ban on hunting wild animals is in place in most of the CCAs, including specific resolution to protect Blyth's Tragopan in village such as Washelo (Tuensang district), Iponger (Kiphre), Anagphang and Yakshu (Mon).

**Discussion:** The study reported 14 local (dialect) names for the Blyth's Tragopan. The usage of numerous local names for this several other species in this region could be due to isolation of villages for so many years due to their remoteness and animosity among communities. Head hunting was reportedly prevalent among Nagas till 1965 (Ganguli 1984). Among 83 villages with information on the species 22 villages reported local extinction and it was reported as rare in another 41 villages (Table 1). This indicates that the status of Blyth's Tragopan in eastern Nagaland is rare and declining, which confirms the reports at global level (BirdLife International 2008).

The Blyth's Tragopan was reported to occur between 600 and 2,800 m above msl, which is wider than the reported elevation range (1,400 -3,300 m above msl) of this species (BirdLife International 2008). Choudhury (1997, 2001) reported that the lowermost elevation range of this species in Nagaland is 1,400 m above msl. Reported occurrence of this species at lower elevations (600 m above msl) by locals indicates its potential occurrence in much lower elevations, further ground surveys are required to confirm this. Most of the villagers reported primary forests as the habitat of Blyth's Tragopan, which is similar to that reported in literature (Ali and Ripley 2001); Choudhury 2001; Ghosh *et al.* 2003). This study was reported the occurrence of this species in a few secondary forests, which is similar to observations by Choudhury (1997, 2001) and Ghose *et al.* (2003).

Some of the information on the ecology of Blyth's Tragopan provided by local communities of eastern Nagaland was consistent with that found in literature (Table 2, Ali and Ripley 2001); BirdLife International 2008; Choudhury 2001; Ghose *et al.* 2003, 2007). Several villagers reported that this species breeds during March-June, which is close to that found in literature (April-May). Several villagers said that tragopans did not breed in their areas, and that it is possible that this species nests at higher elevations and locally move to lower elevations seasonally. In this regard, reports by four villages that this species nests in forests found above 2,000 m above msl is notable, as information on the nest of free ranging birds of this species is not available (Ali and Ripley 2001).

Table 2: Comparison of people's view and that found in literature on Blyth's Tragopan

Information	People's views	Published information
Habitat	Primary forests (evergreen forests)	Subtropical, temperate and evergreen forests
Elevation (m)	600-2,800	1,400 - 3,300
Diet	Seeds, berries, fruits, buds and insects	seeds, berries, fruits and buds
Breeding	March-June	April-May
Nesting	Nesting on ground in tropical evergreen forests	No nests have been found in the wild
Threat	Overexploitation (hunting) and deforestation	Deforestation, primarily as a result of shifting cultivation

The study revealed that most of the villagers are aware of the decline of biodiversity, including of the Blyth's Tragopan, in their region. Many of them showed interest in conserving them, and several villages have created CCAs patches. As the forest patches are owned by the locals, conservation of biodiversity involving local communities would be the best possible option. Most CCAs require technical support regarding conservation strategies and alternate livelihood options.

This study has shown that the Blyth's Tragopan is distributed in most parts of the eastern districts of Nagaland, and a systematic survey is suggested to assess the status of this species in Nagaland. Literature survey shows that available information on the ecology of this species is scanty. Since the species appears to be common in Kiphre district of Nagaland, and ecological studies in this area are also suggested as it would provide pertinent ecological information for planning species conservation strategies. This study also highlights the in-depth indigenous ecological knowledge of the people of eastern Nagaland.

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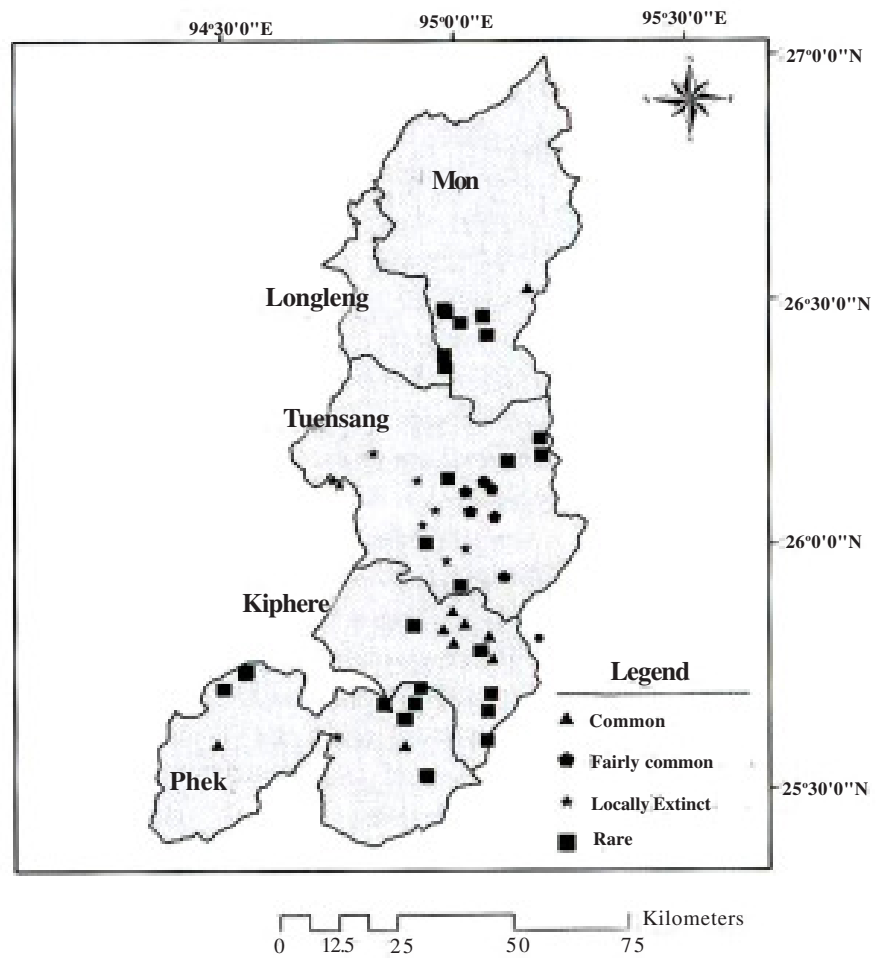
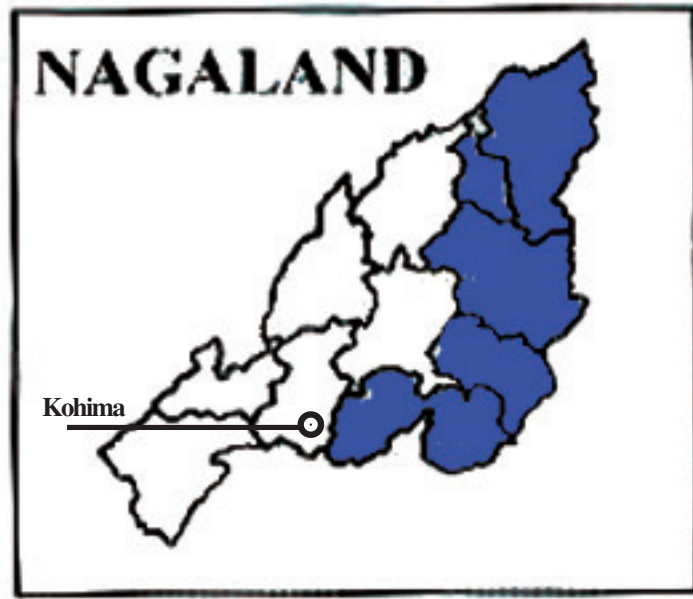


Fig.: Eastern districts of Nagaland showing current distribution of Blyth's Tragopan based on a questionnaire survey

## Parvati Hydro-Electric Project Development and Its Impacts on Himalaya Pheasants

Hydro Power development is accelerating in the Indian Himalayan Region at an alarming rate. These Hydro Electric Projects (HEP) are often lying close to biodiversity rich zones. Their development may pose serious threats to the existence of a number of plants and animal species. Parvati Hydro-electric Project (PHEP) is one such project which has been under construction in the vicinity of Great Himalayan National Park (GHNP). The region is identified as Endemic Bird Area and is inhabited by endangered bird species like the Western Tragopan (*Tragopan melanocephalus*), and Cheer Pheasant (*Catreus wallichii*). It also supports a sizable population of other magnificent bird species like Himalayan Monal (*Lophophorus impejanus*), Koklass Pheasant (*Pucrasia macrolopha*) and Kalij Pheasant (*Lophura leucomelanos*). Apart from that gorgeous mammals like Snow Leopard (*Uncia uncia*), Asiatic Black Bear (*Ursus thibetanus*), Himalayan Musk Deer (*Moschus chrysogaster*) and Blue Sheep (*Pseudois nayaur*) are found in this region. Thus the region is critical from a conservation point of view.

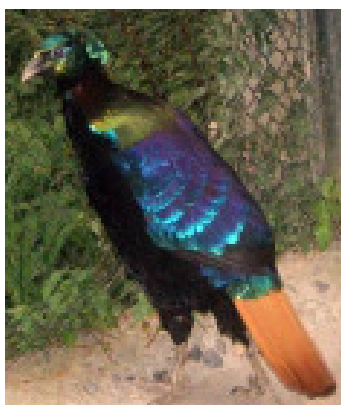


Figure 1. Photographs showing (a) male Himalayan Monal (b) Nesting site of Koklass Pheasant with eggs taken during field study.

The construction and development of PHEP in the region is deemed to have a negative impact on Himalayan wildlife. Therefore our team monitored Himalayan Pheasant abundance to measure the impact of PHEP. We selected Jiwa Valley as a study site as it is rich in pheasants and the National Hydro Power Corporation Ltd. has been constructing a trench weir in this site. This Valley is under the Great Himalayan National Park Conservation Area. It is located in Kullu district of Himachal Pradesh and is drained by the Jiwa Nal River. We used the Call Count and Line Transect methods for the pheasant survey.



Figure 2. (a) PHEP affected site at Manjhan Adit in Jiwa Valley (b) Photograph with PHEP workers. The author is standing 3<sup>rd</sup> from the right.

During our four years study, we monitored pheasant abundance in Jiwa Valley. The Koklass pheasant mean abundance in forest sites was recorded as  $3.8 \pm 0.3$  (S.E) indiv/count which declined to  $1.5 \pm 0.3$  indiv/count in the disturbed forest site (HEP development). Cheer pheasant mean abundance was recorded as  $2.28 \pm 0.4$  indiv/count while in the disturbed forest site, it was found to be  $0.12 \pm 0.07$ . Himalayan Monal mean abundance in forest habitat was  $1.7 \pm 0.29$  indiv/transect which declined in disturbed habitat to  $0.8 \pm 0.26$ . Western Tragopan was not recorded from the disturbed site while in the forest site, its mean abundance was found to be  $1.8 \pm 0.3$  indiv/count.

In this field study, all the pheasant abundances declined when HEP development was taking place. However, during 2010 and 2011, the HEP construction was discontinued due to technical and contract related disputes. The pheasant abundance recovered in the disturbed forest site during this period. However, pheasant's abundance declined again when HEP activity began again in 2012.

Our study showed that hydro power development has influenced pheasant abundance. Pheasants being large bodied size birds with limited dispersal movements are more vulnerable to anthropogenic disturbances. Hence they are a sensitive group of bird species and therefore any development proposed in their habitats needs proper evaluation before clearance.

by: Virat Jolly

### **Common Birds of Andaman Islands with Special Reference to Introduced Birds**

Rajan and P. Pramod

During 2008 - 2010, the Salim Ali Centre for Ornithology and Natural History in Coimbatore (SACON) carried out a survey of the common birds in the Andaman Islands, specially to introduced species. Among the introduced species, the Indian Peafowl *Pavo cristatus* and Grey Francolin *Francolin pondicerianus* have survived. A brief account of these is given below:

**Grey Francolin *Francolin pondicerianus*:** The Grey Francolin was introduced to South Andaman during 1890 and is seen only in Port Blair. During this study, only four individuals were observed at one location. The impact of this species on other fauna is unknown.

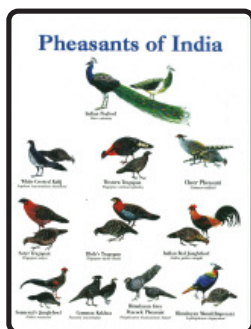
**Indian Peafowl *Pavo cristatus*:** The Indian Peafowl was introduced on Ross Island by the British in 1868. The species was decimated during the Japanese occupation (1942-43), but after the liberation of the archipelago, more were imported (Lever 1987). Currently, fewer than 10 birds survive on Ross Island.

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## Resource Material - available on request

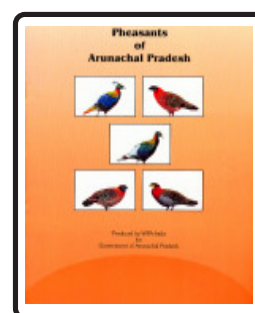
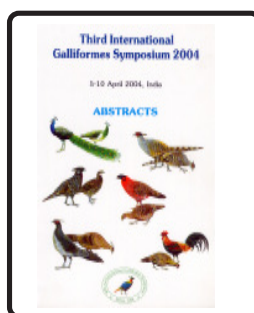
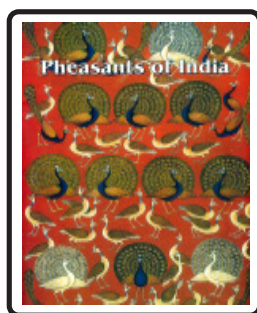
### Posters

- Pheasants of India
- Pheasants of Arunachal Pradesh
- Pheasants of Himachal Pradesh
- Pheasants of Uttarakhand
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- Pheasants of J&K
- Pheasants of Sikkim
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- Pheasants of West Bengal
- National and State Birds
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### Booklets

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- Third International Galliformes Symposium Abstracts
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