

# Mor

*Newsletter of World Pheasant Association - India*



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



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



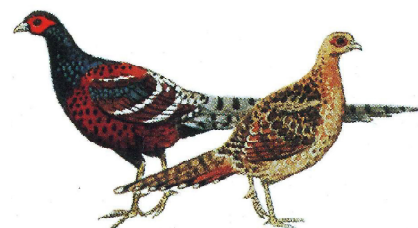
**Western Tragopan**  
*Tragopan melanocephalus*  
Himachal Pradesh State Bird



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



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



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

***Pheasants as  
National & State Birds***

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

## **Editorial**

*Dear Readers,*

*In a previous issue we had covered the earlier phase of work under the project titled “Long Term Conservation of Pheasants in Western Arunachal Pradesh”. This project, as indeed this newsletter itself, is supported by the Duleep Matthai Nature Conservation Trust (DMNCT). The current issue presents you some more highlights of the field activities under this project, especially the studies and observations centering around the species of Kalij Pheasants.*

*The advent of spring and early summer this year has seen an unusually high incidence of forest fires in the hill states of Uttarakhand and Himachal Pradesh. To WPA-India this is an area of special concern because both these states are prime habitats for pheasants and there are dangers of mortality as well as displacement of these endangered birds. We await details of the actual ground situation, and will welcome if readers can also provide updates from field locations in the fire-affected regions. Meanwhile, two short reports on peafowl mortality due to poisoned food, pesticides, and agriculture machinery are included in this issue, highlighting yet another danger to this very sensitive bird group.*

*We hope you will enjoy browsing this issue. As always, we look forward to your feedback and comments, as well as write ups and photos for forthcoming issues.*

**President, WPA-India**



Kalij

Photo: Ayan Bannerjee



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## The Kalij in Arunachal Pradesh

Kalij Pheasant (*Lophura leucomelanos*) is perhaps the commonest pheasant species of the lower Himalayas and adjacent hill ranges. Though it prefers forest habitat, its adaptability is high and is found to occur through a broad altitudinal range from almost the plains adjoining the foothills to about 11,000 feet. In all, there are 9 subspecies of Kalij (White-crested Kalij (*L. l. hamiltoni*) of the western Himalaya, nominate species (*L. l. leucomelanos*) of Nepal, Black-backed Kalij (*L. l. melanota*) of West Bengal, Sikkim and western Bhutan, Black Kalij (*L. l. moffitti*) of central Bhutan, Horsefield's Kalij (*L. l. lathami*) of eastern Bhutan, Arunachal and adjoining Indian states to Myanmar, William's Kalij of western Myanmar, Oate's Kalij of southern Myanmar, Crawford's Kalij (*L. l. crawfurdi*) of southeastern Myanmar to peninsular Thailand, Lineated Kalij (*L. l. lineate*) of southern Myanmar and northwestern Thailand). At least 3 species of Kalij (White-crested, Black-backed and Horsefield's Kalij) occur in reasonably good number in India. Kalij as a species shares the global status 'Least Concern' and in India it is covered under *Phasianidae* in Schedule IV of the Indian Wildlife (Protection) Act, 1972.

Kalij is one of the target species for study in the ongoing project '**Long Term Conservation of Pheasants in Western Arunachal Pradesh**' being conducted by World Pheasant Association – India (WPA-India) in West Kameng and Tawang districts of Arunachal Pradesh. WPA-India team working in Tawang district during field trips sighted Kalij on 8 occasions. Apparently, there was no repeat sighting of the same birds. Total number of individuals sighted was 19 (9 males and 10 females). It was during the onset of mating season and it was noticed that on 6 occasions out of 8, birds were



Kalij

Photo: Ayan Bannerjee

sighted in pairs. In all the cases, the birds took cover when they felt the presence of any of the team members or the vehicle in which the team was travelling. It was observed that mostly the birds tried to conceal themselves behind bushes rather casually. The undergrowth in Arunachal is quite dense, so it is easy to hide without much effort. Only on one occasion a group of four birds took to flight after getting too close (within 4/5 metres) from a team member unknowingly. This shows that the birds are relatively tolerant to the presence of human beings. This has possibly happened due to the nature of the local inhabitants, who being Buddhist by faith abstain from hunting and even resist it.

All the specimens observed were Horsfield's Kalij (*Lophura leucomelanos lathami*). In Tawang district, so far Kalij has been observed by the team up to 9378 feet. The observations are made in summer months. According to the locals, during winter the birds from higher altitudes come down to Zemithang valley at about 6000 to 7000 feet. As reported, in West Kameng district Kalij can be found upto the lowest point, i.e. about 600 feet. It is very likely that Kalij is the most abundant pheasant species in western Arunachal Pradesh.

### Kalij sighting records during the Field Trips

Date	Time	Latitude	Longitude	Altitude (ft)	Nos. / Sex
30-03-2015	13:49:15	N 27°41'41.6"	E 091°59'35.4"	8242	1M 1F
01-04-2015	08:32:35	N 27°35'48.7"	E 091°59'27.4"	7992	1M 2F
01-04-2015	09:06:32	N 27°35'48.4"	E 091°59'32.1"	8191	1M 1F
04-04-2015	06:52:08	N 27°42'30.9"	E 091°43'05.2"	7842	1M 1F
04-04-2015	08:31:06	N 27°41'30.4"	E 091°43'38.3"	9378	2M 2F
04-04-2015	16:40:48	N 27°41'33.6"	E 091°43'07.9"	7645	1M 1F
05-04-2015	08:51:39	N 27°41'41.6"	E 091°43'29.0"	7421	1M 1F
06-04-2015	14:21:48	N 27°36'54.7"	E 091°42'46.5"	5852	1M 1F

by: Heerak Nandy, WPA-India



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## **Pesticides and modern agricultural machinery major cause of population decline of Indian Peafowl in Haryana**

The Indian Peafowl (*Pavo cristatus*) is a bird species in the genus *Pavo* of the Phasianidae family. In 1963 Peafowl was declared the National Bird of India. The bird is protected under Section 51 of the Wildlife Protection Act 1972, and killing is strictly prohibited. Excessive use of pesticides and modern farming techniques have led to large scale decline in population density of the peafowl in India.

Surveys regarding cause of population decline of Indian Peafowl were conducted in Kurukshetra, Ambala, Karnal and Yamuna Nagar districts of Haryana. Haryana is a landlocked state in northern India. It is located between 27°37' to 30°35' N latitude and between 74°28' and 77°36' E longitude. Apart from recording the presence/absence of Peafowl, data on land use practices was collected. Information was also collected by interviewing local people and by using call count and line transect methods. These transects were monitored in morning hours regularly on seasonal basis and habitat parameters were measured. The surveys were conducted during the summer season as it coincides with the breeding season of Indian Peafowl.

Fields where pesticide Anilophos was sprayed has least impact on the density of Peafowl, whereas fields where Butachlor is used the density of Peafowl is very low. Fields where pesticide such as Metribuzin and Fluchloralin are sprayed also have very low population density.

In the agricultural fields where modern machines like combined harvester was used, chances of eggs and fledglings were nil. In fields having pulses, only fledglings were found. Agricultural lands like orchards, where harvesting is done manually, both eggs and fledglings were found. Maximum covey (group of individuals comprising of male, female and chicks) size of Peafowl was observed in orchards as it involves minimum use of pesticides. Highest group size was observed in orchards, whereas smallest group size was observed in cultivated lands. Orchards show maximum encounter rates regarding female, male and chicks. Croplands on other hand, show significant encounter rates regarding male and female peafowl but no nest or fledglings were observed there.

Habitat with high tree density exerts greater influence on habitat preference of Indian Peafowl. But as woodlands are converted to cultivated areas, so in turn it leads to loss of population density. It goes to roost early in the evening on large trees with little foliage, calling out loudly as it does so and again prior to descending in the morning. Indian Peafowl prefer to use trees which have greater length, larger girth and greater height of first branch as its roost. Woodlands are preferred roosting sites for peafowl but modern farming system is eradicating forests and scrublands to expand cultivated areas. As a result, roosting and nesting sites of peafowl are destroyed.

The peahen makes a shallow depression in the ground, into which lining material is added. Start of breeding coincides with the onset of rains. In the study area, the birds bred from June to August and

confirmed the female's tendency to nest under thorny cover. Scrub areas, which are preferred nesting sites of peafowl, are severally removed by the farmers. Metribuzin is used commonly to eradicate scrub areas adjoining cultivated lands. As a result, Peafowl has to construct nests in cultivated lands. There are number of other threats in agricultural lands which cause large scale damage to the nests and chicks of Peafowl.

The breeding season of Indian Peafowl coincides with the harvesting season of cultivated crops like paddy. Harvesting is done by modern harvesting machines called combined harvesters. Farmers prefer to use this machine as it saves time and is more economical. But, such machinery poses great threat to the eggs, chicks and fledglings of Peafowl. Nests and fledglings are crushed along with crops due to modern machine such as combined harvester. This leads to population decline every year.



Fig. 1. Woodland as preferred roosting sites of Indian Peafowl.

Newly hatched Peafowl chicks are dry and precocial and are able to move one to two hours after hatching. Fledglings forage with mother peahen upto few weeks until they learn to fly. As after harvesting vegetation cover is removed, so the fledglings become more visible to predators. Predators such as crows, eagles and dogs are attracted to these field areas. The use of Butachlor and Metribuzin has a crucial effect on eggs and chicks. By the time fledglings fully learn to fly, most of them are predated or die due to adverse effect of used pesticides in the area. Hatching success in Indian Peafowl had

become too low due to modern agricultural practices. Percentage of hatching success in various habitats studied was 93.7% in waste grasslands, 99% on orchards but only 45% in agricultural lands. Hatching failure was mainly due to loss of eggs, mortality of chicks and reduction of nesting sites. Frequent human visits in cultivated lands again reduce the preference of nesting sites in agricultural areas.



Fig 2. Showing extent of vegetation cover reduced in scrublands as preferred foraging sites of Indian Peafowl.

So it is concluded that major threats to the Indian Peafowl are considerable, as it now occupies a highly fragmented range throughout which it is heavily persecuted. Persecution by farmers often follows after habitat conversion to farmland. Indian Peafowl is at great risk due to large-scale damage to its habitat and use of pesticides. Forest loss and clearance of lightly wooded lowlands has exacerbated the population decline. Farmers also use insecticides such as Chloropyriphos and Endosulfan to eradicate termites. After munching seeds treated with these insecticides, Indian Peafowl, both adults and chicks, have been seen falling from trees as they are unable to fly and die. So every year population is declining consistently due to pesticides and modern day agricultural tools and techniques.

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## Updated records for Cheer Pheasant (*Catreus wallichii*) in Jammu and Kashmir

The Cheer pheasant (*Catreus wallichii*) is distributed from northern Pakistan to Himachal Pradesh and Uttarakhand in India, and east to central Nepal (Garson et al. 1992, Roberts 1992, Kalsi 1999). In Pakistan, Cheer survives mainly in the Jhelum valley (Islam and Crawford 1986, Young et al. 1987) with very small populations, which are almost at the verge of extinction, and in the Neelum valley (Roberts 1991 – 1992) and Machiara National Park (Islam and Crawford 1986). Recent surveys in Pakistan (Awan and Lee 2013, Awan et al. 2014) have indicated that although Cheer does survive in some of these areas, it has gone extinct in others. In India, the major stronghold is Himachal Pradesh (Sharma and Pandey 1989) with smaller populations in Uttarakhand (Kaul 1989, Adhakari et al. 1999). The occurrence of Cheer in Nepal has been reported from Dhorpatan Reserve, Banglung, Myagdi, Mustang, Rukum, Jumla, Mugu, Baitadi Districts and Rara National Park (Singh et al. 2011) and the population is declining (Fuller and Garson 2000).

According to Gaston et al. (1981), the specific habitat requirement of grasslands with sparse trees and rocky crags has led to patchy distribution with many sub-populations in small fragments of suitable habitat. Hume and Marshall (1879 – 1881) had reported such patchy distribution more than a century ago. Besides the naturally fragmented population, hunting, human population pressure and changing land use patterns have reduced the population for it to be classified as 'Vulnerable' (Fuller and Garson 2000).

Cheer has been reported recently in Jammu & Kashmir from Limber and Trikuta Wildlife Sanctuaries (Kaul and Srivastava 2007) in addition to old records of its presence in Kishtwar Valley (Ward 1923, Osmaston 1927). In order to update the distribution of Cheer, I conducted surveys in Pirpanjal and Kazinag mountains periodically from 2007 to 2012. Through these surveys, I was able to reconfirm presence of this pheasant at some of the sites of their past occurrence and identify some new sites as well. These sites are located in Kazinag and Pirpanjal Ranges and include Lachipora Wildlife Sanctuary (WLS), Limber WLS, Naganari Conservation Reserve (CR), Kazinag National Park (NP), Salambad-Bagna-Bujthalan from Kazinag Range, and Tattakuti proposed wildlife sanctuary, Khara Galli CR, Sawajian, Bela-Bala Loren from Pirpanjal Range.

I confirmed the presence of Cheer by interviewing locals and old hunters, as well as through direct surveys including call counts during the breeding season (Young et al. 1987). Table 1 provides details of the sites where Cheer was confirmed. Presence was confirmed through primary surveys - i.e. direct sightings and call counts from Lacchipora WLS, Limber WLS, Naganari Conservation Reserve, Kazinag NP, Salambad-Bagna-Bujthalan in Kazinag Range and Khara Galli Conservation Reserve, Tattakuti proposed wildlife sanctuary in the Pirpanjal range. The confirmation of Cheer's presence in Sawajian and Bela-Bala Loren from Pirpanjal range was made through interview surveys.

Table 1. Table shows the sites where the presence of Cheer was confirmed

Range	Sites	Location
Kazinag		
	Kazinag NP	34° 11' to 34° 16' N and 74° 0' to 74° 15' E.
	Lachipora WLS	34°07' to 34°14' N and 74°0' to 74°06' E
	Bagna-Salambad-Bhujthalan	34°9' N to 34°12' N and 74°6' E to 74° 9' E
	Limber WLS	34°07' to 34°15' N and 74°09' to 74°12' E
	Naganari CR	34°10' to 34°13' N and 74°11' E to 74°14' E
Pirpanjal		
	Tattakuti proposed WLS	33°40' to 33°45' N and 74°25' to 74°30' E
	Bela Bala-Loren	33°48' to 33°49' N and 74°20' to 74°21' E
	Khara Galli CR	33°50' to 33°55' N and 74°25' to 74°30' E
	Sawajian	33°50' N to 33°51' N and 74°16' E to 74°18' E

This survey updated the information on the Cheer in the Kashmir Valley. My survey also confirmed the presence of Cheer in the Jammu region (Tattakuti WLS, Khara Galli Conservation Reserve, Sawajian, Bela-Bala) along the southern slopes of Pirpanjal range in addition to the already known populations in the Trikuta hills near Katra (Atwal 2003) and Kishtwar (Ward 1923). As in other parts of its distribution range, most sites are unprotected and face the challenges of human presence, although a limited amount of human disturbance is seen as potentially beneficial for their survival (Garson et al. 1992). The current information indicates that Jammu and Kashmir is still a good area for Cheer. It is, therefore, important that these sites are monitored regularly and the Department of Wildlife Protection, J&K, must take the necessary initiatives for some of these areas, as they are outside the protected area network but may fall within other government owned forests. Conservation by village community groups also needs to be promoted to make sure that the birds are not hunted for the pot.

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Source: Newsletter of the IUCN-SSC Galliformes Specialist Group (Issue 11, January 2016)

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## NATIONAL STUDBOOK: Western Tragopan (*Tragopan melanocephalus*)

*Published as a part of the Central Zoo Authority sponsored project titled “Development and Maintenance of Studbooks for Selected Endangered Species in Indian Zoos” awarded to the Wildlife Institute of India.*

Habitat loss, fragmentation and degradation coupled with poaching are limiting the growth of wild populations of several species, increasingly rendering them vulnerable to extinction. For species threatened with extinction in their natural habitats, *ex-situ* conservation offers an opportunity for ensuring their long-term survival. Pedigree information contained in Studbooks forms the basis for scientific management and ensures long-term genetic viability and demographic stability of such populations.

The Central Zoo Authority (CZA) in collaboration with zoos in the country, has initiated a conservation breeding programme for threatened species in Indian zoos. As a part of this endeavour, a Memorandum of Understanding was signed with the Wildlife Institute of India (WII) for compilation and update of studbooks of identified species in Indian zoos. Under the project, the WII has compiled the II edition of the National Studbook on the Western Tragopan (*Tragopan melanocephalus*) in Indian zoos. The recommendations contained in the studbook can form the basis for long term management of the species in captivity. It is hoped that the holding institutions will adopt the recommendations and keep the WII informed of changes in their populations on a regular basis to enable timely update of the studbook.

For more information: [cza.nic.in/National%20studbook%20Western%20tragopan.pdf](http://cza.nic.in/National%20studbook%20Western%20tragopan.pdf)

*Source: Wildlife Institute of India (2016) National Studbook Western Tragopan (Tragopan melanocephalus) II Edition, Wildlife Institute of India, Dehradun and Central Zoo Authority, New Delhi. TR. No. 011-2015/38.*

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Western Tragopan

Photo: Dr. John Corder





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## Western Trogopan (*Tragopan melanocephalus*)

**Distribution:** Global: India and Pakistan. India: Jammu & Kashmir and Himachal Pradesh.

**Population:** Total world population is believed to be less than 5000 birds (McGowan and Garson, 1995). The largest population is perhaps in the Pallas valley of Pakistan. In India, Himachal Pradesh is the stronghold of the species.

**Legal Status:** Full protection under Schedule I of the Wild Life (Protection) Act 1972.

**Morphology:** In the male, the neck, crest and forepart of the wing is red and neck downwards is predominantly black, grizzled with buff above and white spots both above and below. The bare face is red, horns blue and the dewlap purple in the middle with spots of blue at the sides. The female is mottled brown with white spots.

**Ecology:** Generally found at 1350 – 3600 meters in well forested areas with precipitous mountain-side and heavy undercover. Prefer forests of coniferous species, like Silver fir (*Abies pindrow*), Blue pine (*Pinus wallichiana*), Deodar (*Cedrus deodara*) and some broadleaved species like the Kharsu Oak (*Quercus semecarpifolia*) and Maple (*Acer caesium*). The species is found to be more associated with thick understory-mainly of *Skimmia lauriola*, *Lonicera sp.* and *Viburnum foetans*. During winter, the birds make an altitudinal migration to lower altitudes. Known to be mainly vegetarian, though at times invertebrates also have been found in their diet. Mating generally takes place in the months of April-June, 3-4 eggs are laid in a nest that is rudimentary, either on the ground or in a tree.

**General:** The species is listed as 'Vulnerable' by IUCN. Main threat arises from fragmentation of primary forest habitat in the Western Himalaya. During winter, there is more direct confrontation with humans when the species migrates to lower altitudes. Hence, protection of the species from poaching and its habitat is vital.

*Source: Pheasants of India, WPA-India.*

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## PEACOCKS DIED EATING POISONS: AUTOPSY REPORT

The death of around 20 peacocks found in Madhupur village forest in Khordha last week was caused due to poison eating, revealed the postmortem report. The experts of the OUAT (Orissa University of Agriculture and Technology) who conducted postmortem said all the dead birds had similar problems in liver which is normally caused due to poisoning. OUAT Pathology Department Chief Susen Kumar Panda said whether the birds were given one type of poison could not be ascertained in the postmortem.

Meanwhile, Animal and Husbandry Department has decided to send the carcasses to the laboratories outside the State to ascertain the type of poison and also to find out whether all the dead birds were subjected to one type of poison. Earlier, the National Institute of High Security Animal Diseases (NIHSAD), Bhopal, ruled out avian influenza as cause of death of 18 peacocks found dead in Madhupur under Khurda forest range on December 8.

As many as 18 peacocks, a crow and a crane were found dead under mysterious circumstances in Madhupur area, about 30km from here.

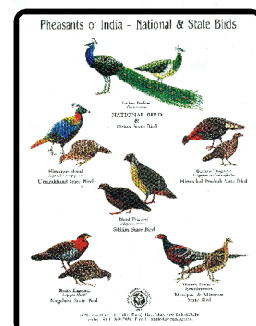
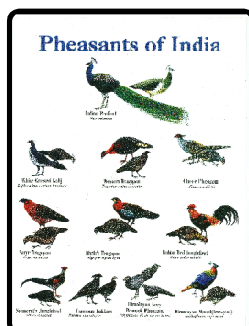
*Source: The Pioneer - Friday, 18 December 2015 | PNS | BHUBANESWAR*

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## Resource Material - available on request

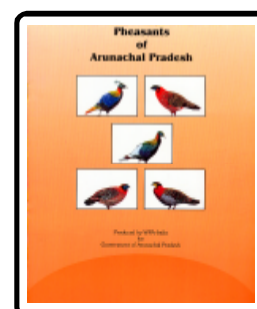
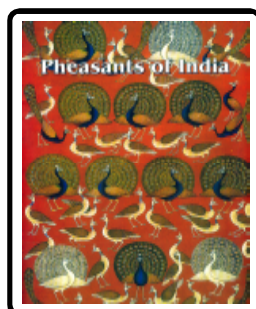
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- Pheasants of India
- Pheasants of Arunachal Pradesh
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- Pheasants of Sikkim
- Pheasants of Nagaland
- Pheasants of West Bengal
- National and State Birds
- Save the National Bird
- Himalayan Monal



### Booklets

- Pheasants of India
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- Third International Galliformes
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