

# Mor

Newsletter of World Pheasant Association - India





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## Editorial

Dear Readers,

This is the first issue of MOR of the year 2021. This year also, the world witnessed abrupt climate changes with blazing wildfires across continents and uncontrolled cloud-bursting with changing rain patterns. We witnessed a high mortality rate as compared to last year, with loss of life of both flora and fauna including humans and wealth.

The second wave of the pandemicis still reminding uswhy the forest and green spaces, even the parks, gardens are so important to ordinary people. Whilst it is still important to pay attention to social distancing recommendations, to have parks and forests around is critical for maintaining our mental and physical health. Now it's time to observe a 'Green hour' daily which will not only help ourselves but can also help restore our wildlife and environment.

In this issue we share the success stories of the Grey Peacock Pheasant being spotted in Pakki Tiger Reserve of Arunachal Pradesh. We have also shared detailed information regarding the pheasant and the ecological studies which have been conducted on it. Our best wishes to the team for further studies of other pheasants.

It is my pleasure to inform all readers, that our article on our National Bird, Indian Blue Peafowl from WPA-India newsletter has been published in the WPA-France newsletter. It has given wider circulation of Mor among global readers.

We wish that with each passing year our endeavour will achieve more perfection. We are sure that all the readers will find this newsletter interesting and enjoyable. We seek your critical feedback to enable us to improve further.

Happy reading and stay safe.

Dr. M. Shah Hussain, Hon. General Secretary



# The Grey Skulker



Grey Peacock Pheasant

The usual windy morning was unusually longer on third of November last year (2020) at Tippi, West Kameng, Arunachal Pradesh. After the lock down I had to be at Tippi for my profession. My job was done and I planned to visit the magical, lush evergreen forest of Pakke Tiger Reserve on the other bank of the river Kameng. Monsoon this year lingered till late October and Kameng was looking mighty. We were eagerly waiting to cross the river by a rubber raft but the strong wind had no intension of helping us. At last around half past ten we managed to step on the west bank of Kameng and enter Pakke Tiger Reserve. Soon we began trekking towards the Tippi Top. The forest trail had a gentle but continuous climb. Thick undergrowth was lush green and the trail was almost covered by knee deep grass and shrubs. Innumerable leeches were climbing up our leechguard covered legs in attempt to feed on us.

Though the early morning session of bird watching was over, we had to stop frequently on sighting of various *Timaliid* birds like Rufous-vented Laughingthrush *(Garrulax gularix)*, Pygmy Wren Babbler *(Pnoepyga pusilla)*, Pin-striped Tit Babbler *(Macronus gularis)*. We saw a family of the threatened Great Slaty Woodpecker (*Mulleripicus pulverulentus*) and a 20 strong flock of Oriental Pied Hornbill *(Anthracoceros albirostris)* on the way. As we approached the highest point (around 400 meters) of this trail the canopy became almost impenetrable for the sun except for a few beams of light. The understory got thicker and darker and the visibility through the leaves and branches was not more than 10-15 feet. It became really difficult to spot any bird or animal inside the thickets. The trail was along



the edge of a shallow gorge. The typical sound of foraging of *Galliformes* on the fallen dry leave covered forest floor caught our attention. We started a very slow and cautious approach towards the source of sounds and suddenly got surprised by the call of a Red Junglefowl (*Gallus gallus*). It called from the far side of the gorge. Shortly after the first call another Junglefowl replied to the former about 20 feet away from us. We also saw some movement in the bushes and heard the flapping sound of wingsof the Junglefowl. Both the Junglefowls kept calling and now we could see the individual of our side. Few short alarm calls of the Kalij Pheasant (*Lophura leucomelanos*) were also there. Soon we got ourselves hidden behind the huge sky touching trees and tried to find out the birds inside the thicket. After a while I saw some movements on the floor.

An Emerald Dove appeared in front of mine. I could see some other movements too behind the Dove and focused my camera on the little clearing where the dove was. Suddenly one female Kalij crossed the patch and almost with it I could see the head of a Grey Peacock Pheasant (*Polyplectron bicalcaratum*) through my view finder! Sound of the shutter of my camera caught the attention of the pheasant and it left the spot. My spectacles were covered with vapour of my breathe and before cleaning it I couldn't see the return of the Peacock Pheasant on the same clearing. Another few precious seconds and the bird got vanished in the thicket. The foggy lenses of my spectacles, poor light condition and the obstructions created by leaves and branches made my work of clicking a good snap real tough. It was an amazing experience for me specially after the first unsuccessful encounter with this bird a couple of years back. Two years back I spend almost a day to see this pheasant at Eaglenest Wildlife Sanctuary, on the west bank of Kameng, during the LongTerm conservation Project organized by World Pheasant Association, India 2014-2018. But I could find only a number of calls around 50 meters away from the place where I was waiting. The bird I clicked here was a male and foraging on fallen fruits of "Bollumthree" (local name) *Talauma hodgsonii*. We found Red Junglefowl, Kalij and Grey Peacock Pheasant feeding together on the bright reddish orange seeds of the fruit here.



Tree Local Name Bollumthree (Talauma hodgsonii)



Grey Peacock Pheasant used to be a rather common bird in the low altitude forests of Assam and Arunachal Pradesh. During the breeding season, March to June, the call of male can be heard in the undisturbed patches of forests. This pheasant can also be seen crossing or foraging along forest trails. While foraging it sometimes show good tolerance of human presence if not disturbed. Usually shy by nature, it often moves in mixed flock of other Galliformes. Hunting for meat by local hunters is the major threat to this pheasant. Inspite of the excellent metallic shine of the "Ocelli" onwings and tail, the grey feathers have no use for the local people. The Grey Peacock Pheasant is one of the least studied species of Galliformes found in the lowland forests of Assam and Arunachal Pradesh. Both Pakke Tiger Reserve and Eaglenest Wildlife Sanctuary on east and West banks of the Kameng river can be excellent places to explore the secretive life of the Grey Peacock Pheasant.



Grey Peacock Pheasant



Pakke Tiger Reserve, Arunachal Pradesh

Article and photos by Ayan Banerjee, WPA-India







**Distribution: Global:** Two sub-species - Polyplectron bicalcaratum bicalcaratum and Polyplectron bicalcaratum bakeri are distributed across India, Bhutan, Myanmar, Thailand, China and Laos. India: Sikkim, West Bengal (north part), Arunachal Pradesh, Assam, Nagaland and Manipur have the sub-species bakeri, while Mizoram may hold the sub-species bicalcaratum.

Population: A shy bird, direct sightings are few. Estimates are not available.

**Legal Status:** Full protection by virtue of inclusion in Schedule I of the Wild Life (Protection) Act 1972.

**Morphology:** The bird is about 64 cm long, including a 35 cm long tail. The head and of the male is brownish buff with a fluffy and forwardly directed crest. The body is greyish brown but grizzled, this effect produced by small cream-coloured spots. The throat is white. The back, wings and tail are studded with eye spots (ocelli) which are purple and green, bordered with cream colour. The female is smaller (about 48 cm) and rather drab to look at. Instead of the clearly defined ocelli as in the male, the female has ill-defined black patches with a touch of green.

**Ecology:** Known to be secretive bird and is usually found singly, adhering to areas upto 1000 meters altitude having thick undergrowth. Diet consists of seeds grains, fruits, insects, termites, snails, bamboo seeds, etc. (Ali and Ripley,1983). The call sounds like a deep ok-kok-kok; the pitch of the call



increases with increase in aggression. These calls are heard in January-March during the pre-breeding and breeding season. The male performs a frontal display with head and breast close to the ground and the tail fanned to reveal all the spots. Nesting take place usually in April and May in a shallow scrape with a rudimentary lining. Usual clutch size is 2 and the hen alone incubates. Chicks hatch after about 21 days.

**General:** Though the species has not been a subject of any study, it is believed to be fairly well distributed across its range. Its population may, however, be dwindling where forests are under heavy pressure. Hence, monitoring of the populations is advisable.

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

## Ecological Studies on Grey Peacock Pheasant *Polyplectron bicalcaratum* (Linn, 1758) in the Tropical Forest of Mizoram

Submitted in Partial Fullfillment of the Degree of Doctor of Philosophy in Zoology of Mizoram University Aizawal by Lalawmawia Sailo

Galliformes are considered one of the most diverse groups of birds (Keane et al., 2005) which are often considered to be among the most threatened avian orders with 300 species being red listed globally (McGowan, 2002; Brickle et al., 2008). Galliformes have a distinct, bright and colourful plumage. They are considered to be a very useful biological indicator of the habitat quality of a particular area (Bhattacharya et al., 2009). Galliformes is a large and varied group of birds in the world comprising of 70 genera and 284 species (Keane et al., 2005). Five families come under the order Galliformes viz. Megapodidae (Scrub Fowls, Bush Turkeys, Mallee Fowl), Cracidae (Guans, Chachalacas, Curassows), Numididae (Guineafowl), Odontophoridae (New World quails) and Phasianidae (Grouse, Turkeys, Pheasants and Partridges) (Dickinson, 2003).

The Indian Himalaya is home to 16 species of pheasant out of the total 17 species recorded for India with the only exception being the endemic Grey Junglefowl *Gallus sonneratii*, which is confined to the Peninsular India. There are seven endemic and eight restricted-range species of Galliformes within India (Sathyakumar et al., 2007). Five species of pheasant are among the 12 avian species to be listed as threatened (Sathyakumar and Sivakumar, 2007). The Indian Himalayan region is home to 80% of pheasants found in India thus indicating its richness (Kaul, 2007). The Eastern Himalayan forests are known to be rich in species diversity than the western Himalayas, with 11 species of the 17 pheasant species in India are found in the eastern Himalayas. Heavy depletion in pheasant population is taking place in their whole geographical range which can be attributed to excessive hunting for coloured plumage and meat (Ramesh et al., 1999).

Pheasants are Asian in their origin, except the Congo Peafowl which is endemic to the Democratic Republic of Congo in central Africa (Crowe et al., 1986). Humans introduced several species of



pheasant into various parts of Europe and North America for sport-hunting and for other purposes (Bump 1941, Pokorny and Pikula, 1987; Hill and Robertson 1988). Within Asia, pheasants occupy a vast geographical area in the continent from Flores, east of Java at about 8°S (Green Junglefowl), through the equatorial forests of the Thai-Malay Peninsula, to northeastern China at about 50°N (Koklass, Ring-necked Pheasant, Reeves's Pheasant, Blue-eared Pheasant). Caucasus is regarded as the western limit of the pheasant group at about 45°E (Ring-necked Pheasant) with the exception of Congo Peafowl. Pheasants are recorded all along the Himalayan chain, to the extent of far east Taiwan at 121°E (Mikado Pheasant, Swinhoe's Pheasant) and Japan at 145°E (Copper Pheasant, Ring-necked Pheasant). Most pheasant species are found to be dependent on heavily wooded habitats which range from lowland tropical rainforest (e.g., Crested Fireback) and montane tropical forest (e.g., Mountain Peacock Pheasant) to temperate coniferous forests (e.g., Blood Pheasant), alpine meadows (e.g., Chinese Monal), and grassland (e.g., Cheer Pheasant). Pheasants and humans have long history of close association (Fuller and Garson, 2000).

Pheasants are large bodied and predominantly terrestrial birds, they are easy to trap or shoot, and their meat and eggs are rich sources of protein and are thus preferred by the hunters. Sixteen species are so far introduced to different places outside their natural range for various purposes such as enhancing collection of ornamental feathers, trophy, sport, and the production of eggs and meat (Long, 1981). The Ring-necked Pheasant is the most widely introduced pheasant species outside its native range where they are brought to Europe from Asia Minor, later from China and Japan about one thousand years ago (Long, 1981). Today they are found throughout Europe and most states of the United States of America where they strive well and reproduce successfully. Although they are originally subjected mainly for food, they now become one of the most important game birds. In Europe, annual harvest of this pheasant species is over 22 million birds, while approximately 9.5 million birds are harvested annually in North America. Sport hunting of this pheasant is of great significance in terms of revenue to landowners because huge number of employments is also generated for the local people (Aebischer, 1997a). The scale of this exploitation ranges from low intensity, level to support the local economy through sustainable harvesting ensuring the survival of the species and may be up to levels leading to local extinction of the species (Simiyu, 1998). The species most affected by hunting in its native range is the Copper Pheasant in Japan, which is reared in captivity to provide birds for sport (Brazil, 1991). Pheasants are therefore a very significant material with benefits to human populations, both locally and internationally, and this increases the possibility of harnessing these benefits for conservation purposes. If sufficient economic incentives can be gained through harvesting and managing pheasant populations in a sustainable manner, hunted populations of these species may be safeguarded in the long term. Apart from the economic benefits derived from pheasants, they have been absorbed into human cultural traditions over the centuries. Several species feature prominently in the art, religion, social customs, and folklore of different ethnic groups in Asia. The Red Junglefowl (G. gallus) has



been associated with humans for centuries, and has (possibly) been in domestication as the progenitor of the domestic fowl for nearly 5000 years (Wood-Gush, 1959).

The man-pheasant association has now come to such extent that it has great economic importance and has influenced language, literature, religion, and medicine. The magnificent Indian Peafowl is especially well-known in ornamental bird collections and trade all around the world and, since it enjoys holy status under the Hindu religion, it remains common and abundant in the wild throughout the plains of South Asia. Many myths are associated with this species, including its capability to hypnotise a snake and muddled its eggs. The feathers of the Brown-eared Pheasant decked the Chinese military uniforms since the period of the Warring States to the last part of the Qing Dynasty (475BC – 1911AD). Their relationship with military valour arises from the fight fought by the males during the mating season. It was believed that there may be great scope for utilizing this relationship to strengthen the conservation of these mesmerizing and beautiful birds, without which all our lives would be very much the poorer (Fuller and Garson, 2000).

The cultural and economic interest of human beings resulted in habitat loss, habitat degradation and habitat fragmentation of most pheasant species (McGowan et al., 1998; Ramesh, 2003). Habitat loss and alterations in its many forms, is suspected to be the main contributor for the decline of most threatened pheasant species. Many forests which are habitat of the pheasant may be permanently or temporarily destroyed as a result of timber collection or through deforestation for other purposes such as agricultural activities and urban encroachment, including road building. Habitats are often totally lost or become much less useful to wild species by means of degradation resulting from surplus activities such as livestock foraging, or fodder and firewood collection.



Photo: Dr. John Corder



# Density and Relative Abundance of Grey Peacock-Pheasant (*Polyplectron bicalcaratum*, Linnaeus, 1758) in Montane Broadleaved Evergreen Forest of Mizoram, North East India

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**Abstract:** Grey Peacock Pheasant (*Polyplectron bicalcaratum*) is identified as ecological indicator of forest ecosystem in tropical rain forest. Study on density and abundance was carried out by line transect method in Lengteng wildlife sanctuary, Mizoram, northeast India for 27 months. Transects are walked four times a month in early morning hours. In 108 transect sampling, 134 individuals were recorded with the encounter rate  $0.51\pm0.06$ /km and density of 0.14/km. The altitudinal distribution range is 1621m - 1783m above sea level, within this range they confined foraging in an area of about 5 km. Largest group observed was comprised of 5 members and the average group size was 0.23 individuals. Male – female sex ratio was 1.89. The low population density of grey peacock pheasant in the present study may be attributed to the skulking behaviour of the bird and the steep terrain with thick undergrowth. The results and its possible reasons are discussed in detail.

**Introduction:** Grey Peacock-Pheasants, *(Polyplectron bicalcaratum)* is one of the most charismatic members of the order Galliformes, sub-family Phasianinae of the family Phasianidae. This group of birds commonly referred as game birds are characterized by strong sexual dimorphism with the males being highly ornate with bright colours and adornments such as wattles and long tails and usually larger than females.

*P. bicalcaratum* is represented by four subspecies, viz. *P. bicalcaratumbakeri* (Lowe, 1925) -Bhutan Grey Pheasant, more widely known as Himalayan Grey Peacock-Pheasant. It is the palest and greyest form. *P. bicalcaratumbailyi* (Rothschild, 1906) commonly known as Hainan Grey Peacock-Pheasant. It is a dark grey coloured form with white markings. *P. bicalcaratum bicalcaratum* (Linnaeus, 1758) known as Burmese Grey Peacock-Pheasant, a dark brown and buff coloured specimen. *P. bicalcaratum ghigii* (Delacour and Jabouille, 1924) which is commonly called Ghigi's Grey Peacock-Pheasant; browner than *P.b. bicalcaratum* with buff coloured surrounds on the tail ocelli (Srivastav and Nigam, 2010).

*P. bicalcaratum* is the most versatile of all peacock pheasants occurring in mainland of southeast Asia. In India the species has been recorded in the central and eastern Himalayas (Ramesh et al. 1999). In eastern Himalaya its distribution is recorded from Sikkim through Arunachal Pradesh and other north-eastern states (Srivastav and Nigam, 2010). Distribution of national studbook of Grey Peacock Pheasant restricted to northern Mizoram only, but Sailo et al. (2013) showed that the species is fairly common in all districts of Mizoram. Compare to its sister pheasants- Kalij Pheasant and Red Jungle fowl, it is less common and confined to thick evergreen forest only.



Literature on the population status of P. bicalcaratum is scanty in Indian subcontinent and at global level as well. . The available literatures indicate diversity and distribution of pheasants and/or galliformes; some are merely site specific survey only. Ramesh et al. (1999) studied ecology and conservation status of the Pheasants of Great Himalayan National Park, Western Himalaya, and from northeast India. Selvan et al. (2013) worked on abundance, habitat use and activity patterns of three sympatric pheasants in an Eastern Himalayan Lowland tropical Forest of Arunachal Pradesh, India. Sathyakumar et al. (2010) works on galliformes of Khangchendzonga Biosphere Reserve, Sikkim; Dohling and Sathyakumar (2011) on relative abundance of Galliformes in Meghalaya; Choudhury (2001) on some bird records from Nagaland.

Mizoram is biodiversity rich region being a part of Indo-Myanmar Hotspot, and very little is studied are available on the Galliformes. Choudhury (2005, 2006, 2009), Ghose (1999, 2000), Ghose and Thanga (1998), Ghose et al. (2003), Sailo et al. (2013) and Lalthanzara et al. (2011a,b, 2014) have reported their studies on surveys and site specific distribution of different galliformes in Mizoram. No study on density and abundance of P. bicalcaratum inMizoram is reported, thus there is a paucity of information on this aspect of P. bicalcaratum in Mizoram. Conroy and Noon (1996) reported that density and abundance of a species is essential to monitor the population of the species which is essential for conservation of species and management of habitat. P. bicalcaratum is placed under Schedule I and is accorded highest protection in the Indian Wildlife Protection Act (1972). Therefore, the present study is taken up to generate basic information on density and relative abundance of the P. bicalcaratum of Mizoram. This data will help to design and develop conservation strategies for the species.

## **Twitter bite**

Ramesh Pandey, IFS @rameshpandeyifs

Got this newsletter of World Pheasant Association-India. Apart from Peafowl which is National Bird of India there are many other pheasants declared as State Birds in many provinces. Sharing stunning beauty of two of my favourites; Himalayan Monal and Blood





pheasants

Mor, March 2021, No. 42



## 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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