

A beautiful medium size Himalayan bird: White-cheeked Bulbul (*Pycnonotus leucogenys*)

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Abstract:

White-cheeked Bulbul is scientifically known as *Pycnonotus leucogenys*. It is a species of bird widely distributed in South and Southeast Asia and is a medium-sized bird known for its distinctive white cheek patches, bright green plumage and musical calls. The White-cheeked Bulbul plays a crucial role in the ecosystem. It helps to pollinate plants and control insect populations by feeding on them. Despite its ecological significance, the species is facing many threats, including habitat loss and degradation at faster rate, which could be potential threat to its population incoming times if not at present. However, it has been observed to adjust itself alternatively to, habitat loss by living in the proximity to humans even making nest in their homes.

Keywords: Himalayan bulbul, south and south east-Asia, ecosystem, conservation etc.

Introduction:

Pycnonotus leucogenys is a species of bird that belongs to the family pycnonotidae, comprising of a group of passerine birds commonly known as bulbuls. The species is closely related to other species of bulbuls, such as the red-whiskered bulbul and the black-headed bulbul. The white-cheeked bulbul is a medium-sized bird with a body length of around 15-17 cm. It has a distinctive appearance with a bright green plumage, white cheek patches, and a dark-colored beak. The species also has a unique call comprising of a series of musical whistle and trills. It is found near the Himalayas (IOC world Bird). This bird is widely distributed across south and south-east Asia ranging from India and Pakistan to as far as Cambodia and Vietnam. This bird is found in dry habitats, open dry scrub, hillsides with scattered raspberry and berberis bushes, hedgerows, bushes around towns and villages (Grimmet et al., 2011). In nutshell we can say that species is found in varied habitats such as forests, woodlands and gardens and now have been observed to live in close vicinity of humans even in outer spaces of homes. It is an omnivorous bird feeding on plants and small insects. With respect to conservational status it is a bird of least concern as per red data book of IUCN (IUCN Red List of Threatened Species in 2016).

Material and Methods:

The nest under observation was visited every day. The various nest parameters viz., outer diameter, inner diameter and depth of nest depression, nesting material and nesting habitat were thoroughly noted down. Studies on egg laying, clutch size, egg laying intervals and incubation behavior and period were also carefully noted down. The newly laid eggs were very carefully observed and findings were pen downed. Clutch initiation dates were determined by direct observation. Every care was taken to avoid the disturbance to the

bird or nest during monitoring and to expose the nests to predation. Hatching, nestling and breeding success were defined as the probability that eggs laid would hatch in a fully grown individual, the probability that hatchlings would fledge and the probability that eggs laid would survive from egg laying to fledging.

Study Area:

The present study has been carried out in village Kohala of Kangra District in Himachal Pradesh. Village Kohala is a major village of Kangra assembly segment of Himachal Pradesh having very fertile agriculture land irrigated by local water channels known as “*Kuhuls*”. The GPS coordinates of village Kohala are as latitude 32° 8' 13" N and longitude 76° 18' 30" E having height 844 m above mean sea level.

Results and discussions:

The life cycle of *Pycnonotus leucogenys* typically involves the following stages:

Egg laying and Incubation:

The timing of egg laying is determined, usually by both endogenous clocks and local factors, so that food availability is near optimal for raising young (C.Cyntheia, 2009). The *Pycnonotus leucogenys* species under observation were found to be desperate to construct nest first on a triangle shaped angle of door closer in house but latter settled to construct it on the angle of window steel hook in the outer wall of the house during mid June 2022. The nest was constructed from leaves, grass and some plastic ribbons collected from the waste. The nest was half cup shaped having dimension of 11 cm by 5 cm and depth of 3 cm. A nest has been defined as any depression in which the bird laid one or more eggs (Miller and Jhonson, 1978).

As it was scorching heat in mid June 2022 so female has been sitting and leaving nest multiple time with taking break in between. Female laid four eggs on consecutive days and one egg per day during night time. The first egg was laid on 24th June 2022 followed by others in consecutive nights. In Himalayan bulbuls both the male and female take turns incubating their eggs. They work together as a team to build a nest and share responsibilities for incubating the eggs, feeding the chicks, and protecting the nest from predators. During the incubation period the parents take turns incubating the eggs for several hours at a time which is helpful to ensure that the eggs are kept at a constant temperature and are well-protected until they hatch. Eggs were oval in shape and had a pale-white base in color with dense pink speckles towards the broad end (Figure 1). The eggs have a pale mauve ground color with speckles becoming blotches towards the broad end. Eggs measure 18-20 mm in length and are 13-15 mm wide. The newly hatched chicks were very alert on bussing of any sound and open mouth as their parents drops cached insects into their mouth. The eyes were initially covered with lid. The eggs were incubated by the parents for around 15-16 days. The egg hatched on 8th July 2022 during the evening and 9th July 2022 during mid day. Balakrishnan (2010) has reported the nestling period to be 12-13 days in Square-tailed black bulbul

Morphology of young and adult:

A young Himalayan bulbul is smaller in size than an adult, with a body length of around 10-12 centimeters. The plumage of a young Himalayan Bulbul is duller than that of an adult. They have a brownish-grey body with a pale yellow underbelly. The feathers on their wings and tail are also shorter and less developed than in adults. The bill of a young Himalayan Bulbul is shorter and less curved than that of an adult. It is also lighter in color, usually a pale pinkish-grey. The eyes of a young Himalayan Bulbul are large and dark in color, with

a rounder shape than that of an adult. The feet and legs are shorter and less developed than in adults. They are also lighter in color, usually a pale pinkish-grey. As the young Himalayan Bulbul grows and matures, its morphology changes accordingly. Its plumage will become more vibrant and its bill, eyes, feet and legs become larger and more developed.

Nestling:

Studies on growth of nestling can provide a wealth of biological information that has larger effects for avian management and conservation (Kumar and Kumar, 2021). Once the eggs hatch, the chicks are fed by both parents. They were observed to grow rapidly and their feathers start to develop within 2 weeks. On 12th July 22 first small streak of wings appeared which were well developed by 15th July 2022 and the bird started first attempt to fly by 18th July 2022, Chicks were well developed on 20th July 2022. The survival rate was $\frac{1}{4}$ as other could not survive due to different reasons since 02 chicks were eaten by cat and one died because of unknown reason. Their survival rate is low because of heavy depredation by common crows, domestic cats and also due to loss of their nesting habitats (Fazili et al., 2013). Hsu and Lin (1997) has also reported cat to be one of the predators. At around 2-3 weeks of age the chick left the nest and started to forage for food on their own. The young bird was continued to be fed by their parents for a few more weeks, until it was fully independent. The bulbul reaches maturity in around one year and thereafter begins to breed. This cycle is repeated every year, with the birds breeding from mid to late summer.

Future of White cheeked bulbul:

The white-cheeked bulbul is facing many threats, including habitat loss and degradation due to urbanization and deforestation. The species is also threatened by the pet trade as it is also commonly kept as a cage bird. Additionally, the species is susceptible to predation by birds of prey and other predators. There are currently several conservation efforts underway to protect the white-cheeked bulbul. These efforts include habitat restoration, protection of key nesting sites and regulation of the pet trade. Additionally, there should be efforts to educate the public about the importance of the species and the need for conservation.

Conclusion:

The White-cheeked Bulbul is an important species for the ecosystem, playing a crucial role in pollination and insect control. Despite its ecological significance, the species is facing many threats, including habitat loss and degradation, which could be responsible for a decline in its population in future if not at present. Conservation efforts are needed to protect the species and ensure its survival in the future.

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Fig.1 Photographs of Himalayan bulbul during various stages of development