

Breeding Biology of Grey Jungle Fowl (*Gallus sonneretti*): A Case Study at Barri Doda, Jammu and Kashmir

Ajaz Ahmed Wani^{1*}

¹Head Department of Zoology Govt. PG College Bhaderwah, Jammu and Kashmir

DOI: <https://doi.org/10.36348/sjls.2025.v10i06.003>

| Received: 05.05.2025 | Accepted: 10.06.2025 | Published: 24.06.2025

*Corresponding author: Ajaz Ahmed Wani

Head Department of Zoology Govt. PG College Bhaderwah, Jammu and Kashmir

Abstract

The breeding behaviour of Grey Jungle Fowl (*Gallus sonneretti*) was studied in village Bari of district Doda of Jammu and Kashmir near agricultural fields during the month of June of 2024. During the course of observation it was observed that female lays 8 eggs in a nest on the ground near agricultural fields. The incubation period is 21 days. But surprisingly on 15th day of incubation all the eggs were found to be disappeared from nest.

Keywords: Grey Junglefowl (*Gallus sonneratii*), Breeding behaviour, Nesting ecology, Incubation period, Predation.

Copyright © 2025 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

INTRODUCTION

The gray junglefowl (*Gallus sonneratii*), also known as Sonnerat's junglefowl, is one of the wild ancestors of the domestic chicken together with the red junglefowl and other junglefowls. It is also called Jungli murga/ murgi in Hindi. The male has a black cape with ochre spots and the body plumage on a grey ground colour is finely patterned. The elongated neck feathers are dark and end in a small, hard, yellowish plate; the male has red wattles and combs but not as strongly developed as in the red junglefowl. Legs of males are red and have spurs while the yellow legs of females usually lack spurs [1]. The central tail feathers are long and sickle shaped. Males have an eclipse plumage in which they moult their colourful neck feathers in summer during or after the breeding season [2]. The female is duller and has black and white streaking on the underparts and yellow legs.

Grey junglefowl are native to India. They occur mainly in the Indian Peninsula but extend into Gujarat, Madhya Pradesh, and southern Rajasthan. The preferred habitat of these birds includes tropical moist forests, thickets, on the forest floor, and open scrub. They also occur in agricultural land and pastures. It is also found more along the foothills of the Himalayas. Grey junglefowl are active during the day and spend the majority of their time on the ground. They forage in small mixed or single-sex groups. When feeling threatened they fly into trees to escape from predators; they also

roost in trees at night. It is vocal birds and produce calls of 'Ku-kayak-kyuk-kyuk' (Call of male) and other calls are loud and distinctive and can be heard in the early mornings and at dusk. Before uttering their call the males do not flap their wings [4]. Grey junglefowl have an omnivorous diet. They feed on grains including seed insects, and termites etc. Little is known about the mating system and reproductive behavior of the Grey junglefowl. They are known to breed from February to May. Females scrape a whole in the ground where they lay 4 to 7 pale eggs and eggs are hatched in about 21 days [5]. This species is not considered threatened. However, its population declines due to habitat loss and hunting. These colorful birds are hunted for meat and for their long neck hackle feathers that are sought after for making fishing lures.

MATERIAL AND METHODOLOGY

The study was carried out in village Bari which is approximately 40 km from district headquarter Doda of Jammu and Kashmir at an elevation of approximately 1200m from sea level.

The study area has subtropical type of climate with the upper reaches bearing temperate type of climatic conditions. The observation was carried with the objective to study the breeding behavior of Grey Jungle Fowl (*Gallus sonneretti*) whose nest was observed near the agriculture fields.

OBSERVATION AND DISCUSSION

The present observation of breeding behavior of Grey Junglefowl was made in village Bari near agriculture fields, where Junglefowl constructed its nest. The nest is made up of straw, and dry grass etc. Which was at the ground. Grey Jungle Fowl breeds from March to June. In the nest 8 eggs were observed which are

creamy in colour and the eggs hatch in about 21 days. During the course of observation it was observed that only female hatches the eggs and author observed the same on alternate days, but on 15th day of observation, surprisingly all the eggs were found disappeared from the nest and female bird was observed moving here and there near the nest site desperately.



Figure 1: Female grey jungle fowl hatching eggs



Figure 2: Eggs of grey Jungle fowl

CONCLUSION

The breeding biology of the Grey Junglefowl is characterized by complex behaviors influenced by social structure, environmental conditions, and parental investment. This understanding is vital for formulating conservation strategies aimed at protecting this unique species and its habitats. Females are selective in their choice of nesting sites, often preferring locations that offer concealment from predators. The choice of nesting habitat is critical for enhancing chick survival rates. Clutch sizes usually range from 4 to 8 eggs. The incubation period lasts about 21 days, after which the female leads the chicks to foraging sites, significantly influencing chick survival. But during the course of observation the eggs did not reach the final stage of survival due to unknown reasons as all the eggs were found missing on the 15th day of hatching.

REFERENCES

1. Rasmussen PC; JC Anderton (2005). Birds of South Asia: The Ripley Guide. Volume 2. Smithsonian Institution and Lynx Edicions. p. 132.
2. Morejohn, G. V. (1968). "Study of the plumage of the four species of the genus Gallus". The Condor. 70 (1): 56–65. doi:10.2307/1366508. JSTOR 1366508.
3. Ali, S.; Ripley, S. D. Handbook of the birds of India and Pakistan. Vol. 2 (2nd ed.). Oxford University Press. pp. 106–109.
4. Finn, Frank (1911). The game birds of India and Asia. Thacker, Spink and Co., Calcutta. pp. 21–23.
5. Rasmussen PC; JC Anderton (2005). Birds of South Asia: The Ripley Guide. Volume 2. Smithsonian Institution and Lynx Edicions. p. 132.